

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.

Comment [A1]: Our practice is to add **for use within the District** and **uses** text to explain and narrow the scope of the rule. Adding **or associated solvent** extends the applicability to solvent cleaning. This change stems from a commitment in the 2010 Clean Air Plan (CAP).

B. Exemptions

Except as otherwise specifically provided herein, the provisions of this rule shall not apply to the following:

1. All provisions of this rule, except ~~The provisions of~~ Section D, shall ~~not~~ apply to any coatings with separate formulations used in volumes of less than 20 gallons 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 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. All provisions of this rule, except ~~The provisions of~~ Section ~~DE~~, shall ~~not~~ apply to touch-up coatings, ~~and~~ repair coatings, and textured finishes.
3. This Rule shall not apply to residential ~~Residential~~ non-commercial metal parts and products coating operations and associated solvent cleaning.
4. The provisions of this Rule shall not apply to the coating ~~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 this Rule shall not apply to coatings ~~Coatings~~ supplied in non-refillable nonrefillable aerosol containers having capacities of 18 ounces or less.
6. The provisions of this Rule shall not apply to the coating ~~Coating~~ and associated solvent cleaning operations listed below, which are covered under the ~~categories rules~~ cited.

 - a. Aircraft or a ~~Aerospace vehicles~~ 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 [A2]: 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 [A3]: 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 Rules 317, Organic Solvents, and Rule 322, Metal Surface Coating Thinner and Reducer.
8. Any solvent 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.6 and make them available for review.
9. Stripping of cured coatings, cured adhesives, cured sealants, and cured inks, except the stripping of such materials from spray application equipment.
10. All provisions of this rule, except Sections D and E, shall apply to:
 - a. Stencil coatings;
 - b. Safety-indicating coatings;
 - c. Magnetic data storage disk coatings;
 - d. Solid-film lubricants; and
 - e. Electric-insulating and thermal-conducting coatings.

Comment [A4]: Essentially the same as the Rule 321.B.1 exemption.

Comment [A5]: Same as the Rule 321.B.4 exemption.

Comment [A6]: Similar to provisions in South Coast AQMD (SC) Rule 1107(f)(1).

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.

2. ~~“Air 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 solvent cleaning operations subject to this rule.

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.

“Catalytic Incinerator” means any device that burns reactive organic compounds or toxic air contaminants in air using a material that increases the rate of combustion without itself undergoing a net chemical change in the process. Common catalyst materials include but are not limited to, platinum alloys, chromium, copper oxide, and cobalt.

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

Comment [A7]: The District protocol is to remove degree symbols, abbreviations, and acronyms. Hence, they are spelled out here and elsewhere.

“Control System” means any combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of reactive organic compound or toxic air contaminant emissions generated by a regulated operation.

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.

Comment [A8]: 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.

“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.

Comment [A9]: 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.

“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 Spray” means using a sufficient charging of atomized paint droplets to cause deposition by electrostatic attraction. This application requires a minimum 60kV power supply any method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

6. “Exempt Organic Compounds” means those compounds listed as exceptions in the definition of “Reactive Organic Compounds” in Rule 102.

Comment [A10]: 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 solution; 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.

Comment [A11]: The definition is modeled on the SC Rule 1107 definition. This term coupled with **electric-insulating varnish** are replacing **industrial maintenance coating**.

“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:

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

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.

“Grams of Reactive Organic Compound Per Liter of Material” means the weight of reactive organic compound per volume of material and can be calculated by the following equation:

$$\text{Grams of ROC per liter of material} = \frac{W_s - W_w - W_e}{V_m}$$

Where:

- W_s = Weight of volatile compounds in grams.
- W_w = Weight of water in grams.
- W_e = Weight of exempt compounds in grams.
- V_m = Volume of material in liters.

Comment [A12]: Same as the formula found in Rule 353. Solvent ROC limits are expressed in grams of reactive organic compound per liter of material units.

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 Equipment”** means using any spray equipment that is used to apply coating by means of a spray gun that operates at with air pressure between 0.1 and 10.0 psi pounds per square inch gauge of atomizing air pressure and air volume greater than 15.5 cfm per spray gun or less at the air cap.

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.

Comment [A13]: 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.

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

Comment [A14]: Similar to the Rule 321 definition.

“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.

“Natural Draft Opening” means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

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

“Operating Parameter Value” means any minimum or maximum value established for a control equipment or process parameter which, if achieved by itself or in combination with one or more other

[Annotated draft of July 7, 2011]

operating parameter values, determines that an owner or operator has continued to comply with an applicable emission limitation.

“**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**” means recoating portions of previously coated product due to damage to the coating following normal painting 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 [A15]: 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.

Comment [A16]: Solvent and solvent cleaning 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 [A17]: 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.

“**Thermal Incinerator**” means any device that burns reactive organic compounds or toxic air contaminants in air by direct application of heat. Thermal incinerators are usually equipped with burners, refractory lined chambers, heat recovery equipment, and process controllers.

13. “**Touch-Up**” means that portion of the coating operation which is separate from the main coating 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.

“**Waste Solvent Residue**” means sludge that may contain dirt, oil, metal particles, and/or other undesirable waste products concentrated after heat distillation of solvent either in a solvent cleaning machine itself or after distillation in a separate still.

D. Requirements – Reactive Organic Compounds 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 [A18]: Our practice is to improve text flow by changing the sentence structure in this manner.
Comment [A19]: 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 [A20]: 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 [A21]: 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 [A22]: 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.~~

Comment [A23]: 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 control device other than a thermal or catalytic incinerator, and~~

Comment [A24]: 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 [A25]: 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 [A26]: 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. 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.
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.

Comment [A27]: The housekeeping provisions are similar to requirements found in Rule 321.F.

7. Any storage of any compound subject to this rule shall only be done in containers that meet the labeling requirements of Section G.

G. Requirements – 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 H1.1.

Comment [A28]: Adding for reactive organic compound content follows an ARB recommendation.

Comment [A29]: Inserting and the formula in Section C follows an ARB suggestion relative to Rule 337 (letter dated February 2, 1995).

H. Requirements – Recordkeeping

Any Person subject to this Rule shall comply with the following requirements.

1. Maintain a current listing file of all reactive organic compound-containing materials in use at the stationary source subject to this 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.);
 - d. specific mixing ratios/volumes of each component for each batch;
 - 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

Comment [A30]: 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 [A31]: Essentially the same text found in Rule 353.O.1.

f. current coating and solvent manufacturer specification sheets, Material Safety 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.

2. For each ~~industrial maintenance~~ extreme performance or electric-insulating varnish coating, maintain on a monthly basis a list-record of each part or product coated on a monthly basis. The record shall specify whether each part or product was air dried or baked.

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.~~

Comment [A32]: Moved to 330.H.1.f.

4.3. ~~Maintain purchase records identifying the type or name and the volume of material purchased for each reactive organic compounds-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);

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.

4. Maintain records of the method of disposal each time waste solvent or waste solvent residue is removed from the stationary source for disposal.

5. ~~Maintain~~ For each material listed in response to Section H.1, maintain on a monthly basis a record of the following:

a. volume used (gallons);

b. reactive organic compounds content (grams per liter or pounds per gallon); and

c. and resulting reactive organic compound emissions (pounds) of each reactive organic compounds-containing material used.

For permitted facilities 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 of non-compliant 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 of non-compliant 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, visible tear, hole, or crack in application equipment, a solvent distillation unit, or in a gun washer, the operator shall record:
- 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 3 years. Thereafter, such records shall either be kept on site or 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 for an additional 2 years.

Comment [A33]: Subsections a - c are from Rule 321.R.1.c.

Comment [A34]: Similar to the Rule 321.R.3 provision.

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. The reactive organic compound content of materials containing 50 grams per liter of reactive organic compound 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.

Comment [A35]: EPA recommended referring to SC Method 313 for determining ROC content of materials containing < 50 g/l.

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 48, 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 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.~~
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.~~
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.
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.

Comment [A36]: EPA recommended that this provision mirror the SC Rule 1122(h)(7)(B) text.

Comment [A37]: EPA recommended that the District model the provisions on SC Rule 1122(h)(7)(A) text.

Comment [A38]: Essentially the same as Rule 321.P.4 provisions.

Comment [A39]: Similar to the Rule 321.P.3 requirements.

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.
9. Pursuant to Section H.1.d and e, when a coating or solvent is used that is a mixture of different materials that are blended by the operator, the volumes of each component for each batch shall be recorded. The reactive organic compound content of the batch shall be calculated and recorded in order to demonstrate compliance with the specified "as applied" limits.
10. 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.

Comment [A40]: Added per the EPA recommendation in the Technical Support Document for SJV Rule 4605 (June 2009).

Comment [A41]: This provision stems from Rule 321.R.1.b.5.

J. Requirements – Solvent Cleaning

Comment [A42]: 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 1.

Table 1: Reactive Organic Compound Content Limits for Solvent Cleaning

<u>SOLVENT CLEANING ACTIVITY</u>	<u>ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon)</u>
<u>(a) Surface Preparation for Coating Application</u>	<u>25 (0.21)</u>
<u>(b) Cleaning of Coatings Application Equipment</u>	<u>25 (0.21)</u>

Comment [A43]: 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].