



## NOTICE OF WORKSHOP FOR DISCUSSION OF PROPOSED AMENDMENTS TO RULE 67.9 - AEROSPACE COATING OPERATIONS

The San Diego County Air Pollution Control District will hold a public meeting to consider proposed amendments to Rule 67.9 - Aerospace Coating Operations. Comments regarding the proposed amendments may be submitted in writing before, or made at the workshop, which is scheduled as follows:

**DATE:** March 6, 1991  
**TIME:** 9:00 a.m.  
**PLACE:** Farm Advisor's Conference Room  
County Operations Center  
Building #4  
5555 Overland Avenue  
San Diego, CA 92123

The amendments to Rule 67.9 correct deficiencies with the rule that have been identified by the Environmental Protection Agency. They also make other changes including revisions to solvent limits for certain specialty coatings. The proposed amendments will accomplish the following:

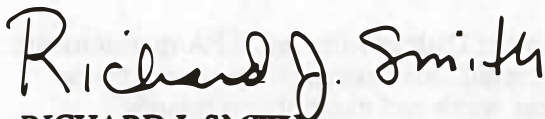
- Make the requirements of Rule 67.9 applicable to the cleaning of aerospace components, and the cleaning of coating application equipment.
- Add exemptions for prepreg composite materials, touch-up coatings, stencil coatings, coatings applied using non-refillable handheld aerosol spray containers, and coatings used exclusively for research and development if not more than 50 gallons of such coatings per year are used.
- Delete the exemption for spray booths or rooms where not more than one gallon per day of coating is used.
- Revise the VOC definition consistent with other District rules and EPA requirements. Add additional compounds that are exempt from regulation because they are not ozone precursors. Clarify that VOC limits are "less water and exempt compounds".
- Revise VOC limits for certain coating categories and add new coating categories with associated VOC limits. Future effective dates for lower VOC limits for certain coatings have also been specified. Associated definitions have been added and revised.
- Revise VOC limits for maskants.
- Require the use of specified high transfer efficiency application equipment for coatings. Applications using small airbrushes would be exempt.

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- Add requirements for coating strippers.
- Revise requirements for materials used for surface preparation or cleaning.
- Revise requirements for the clean-up of coating application equipment, consistent with other District rules.
- Add a prohibition against specifying the application of a coating if such application would result in a violation of Rule 67.9.
- Add a requirement (to be effective in 1 year) that coating containers must specify the type of coating category the coating is intended to be used for and the maximum VOC content of the coating.
- Add a prohibition against reformulating a coating to increase the methylene chloride or CFC content. The methylene chloride and CFC content of coatings must be shown on coating containers (to be effective in 1 year).
- Delete current requirements for equivalency plans (if used) and refer to new requirements contained in new District Rule 67.1 (Alternative Emission Control Plans).
- Specify control equipment requirements (if used for compliance), consistent with other District rules.
- Add requirements that records be kept on a daily basis and maintained for at least three years. The requirement for daily records will not apply to adhesives and sealants having a VOC content of less than 250 g/l and adhesives and sealants applied in areas not required to have District permits provided annual usage records are maintained.
- Specify test methods that will be used to determine compliance with the rule.

If you would like a copy of the proposed amendments to Rule 67.9, please call Juanita Ogata at (619) 694-3307. If you have any questions concerning the proposal, please call Natalie Zlotin at (619) 694-3312 or me at (619) 694-3303.

  
RICHARD J. SMITH  
Deputy Director

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Proposed amendments to Rule 67.9 are to read as follows:

## **RULE 67.9. AEROSPACE COATING OPERATIONS**

### **(a) APPLICABILITY**

(1) This rule is applicable to the coating, masking, surface preparation, cleaning and paint stripping of aerospace components, and the cleanup of application equipment associated with these operations.

(2) ~~Where Rule 67.6 Solvent Cleaning Operations is applicable, the surface cleaning provisions of this rule shall not apply.~~

~~(3)~~(2) ~~Except as otherwise provided in Regulation IV, any~~ Any coating, cleaning or surface preparation operation which is exempt from all or a portion of this rule pursuant to Section (b), shall comply with the provisions of Rule 66., 67.6 and/or Rule 67.12 as applicable.

### **(b) EXEMPTIONS**

(1) The provisions of ~~Section~~ Subsections (d)(1) through (d)(5) shall not apply to the following:

(1) ~~The use of 1,1,1-trichloroethane, trichlorotrifluoroethane, and methylene chloride.~~

(2) ~~A defined area, spray paint booth, or room where not more than one gallon per day of aerospace coating is used:~~

(i) Touch-up coatings and stencil coatings.

~~(3)~~(ii) A stationary source where not more than 50 gallons per year of aerospace coating is used.

~~(4)~~(iii) Coatings with separate formulations that are used in volumes of less than 20 gallons per year provided not more than 50 gallons per year of all such coatings are used at the stationary source.

(iv) Coatings used exclusively for purposes of research and development provided not more than 50 gallons per year of all such coatings are used at the stationary source.

(v) Coatings applied using non-refillable handheld aerosol spray containers.

(vi) Prepreg composite materials provided that these materials comply with the provisions of Rule 67.12.

It shall be the responsibility of any person claiming any of the above exemptions to maintain monthly records of coating usage. Such records shall show the amount of each coating used and in accordance with Subsection (f)(1) of this rule. These records shall be retained on site for at least three years and shall be made available to the District upon request.

(2) The provisions of Subsection (d)(2) shall not apply to the use of air brushes with a capacity of two ounces (59.1 ml) or less.

(3) The provisions of Subsection (f)(2) shall not apply to adhesives and sealants which have a VOC content, as applied, of less than 250 grams per liter of VOC, less water and less exempt compounds.

(4) The provisions of Subsection (f)(2) shall not apply to adhesives and sealants which are not applied in application stations required to have a District Permit to Operate.

It shall be the responsibility of any person claiming exemptions (b)(3) or (b)(4) above to maintain yearly usage records. Such records shall show the amount of each adhesive and sealant used and in accordance with Subsection (f)(1) of this rule. These records shall be retained on site for at least three years and shall be made available to the District upon request.

**(c) DEFINITIONS**

For the purposes of this rule the following definitions shall apply:

(1) "Adhesive" is a coating that is used to bond one surface to another surface by attachment.

(1)(2) "Adhesive Bonding Primer" is a coating applied in a very thin film to aerospace metal-adhesive bond detail components for corrosion inhibition and adhesion of the subsequently applied adhesive.

(3) "Aerospace Coatings" are materials including but not limited to the materials specified in the table in Subsection (d)(1)(i) of this rule.

(2)(4) "Aerospace Component" is any raw material, partial or completed fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including mockups and prototypes.

(5) "Antichafe Coating" is a coating applied to aerospace components' moving surfaces which may rub other aerospace components' surfaces during normal operation. A material shall not be classified as an antichafe coating if it can also be classified as a dry lubricative material or a solid film lubricant.

(7)(6) "Application Equipment" is equipment used for applying coatings to a substrate. Application equipment includes coating distribution lines, coating hoses, equipment used in hand application methods, and equipment used in mechanically operated application methods, including but not limited to spray guns, spinning disks, and pressure pots.

(7) "Caulking and Smoothing Compounds" are semi-solid materials which are applied by hand application methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses.

(8) "Conformal Coating" is a coating applied to electrical conductors and circuit boards to protect them against electrical discharge damage and/or corrosion.

(9) "Dry Lubricative Material" is a coating consisting of lauric acid, cetyl alcohol, waxes, or other non-cross linked or resin-bound materials which act as a dry lubricant.

(3)(10) "Electromagnetic Radiation Effect Coatings" are coatings primarily applied to prevent radar detection and electromagnetic interference.

(11) "Exempt Compound" is any of the following compounds: methylene chloride, 1,1,1-trichloroethane, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), tetrafluoroethane (HFC-134a), dichlorofluoroethane (HCFC-141b), and chlorodifluoroethane (HCFC-142b).

(4)(12) "Flight Test Coating" is a temporary coating applied to test an aircraft prior to flight testing to protect the aircraft from corrosion and to provide the required markings during flight test evaluation.

(13) "Form Release Agent" is a coating applied to metal sheets to prevent galling and/or to keep the metal from being held by a mold or die during forming.

(14) "Fuel Tank Adhesive" is an adhesive used to bond aerospace components exposed to fuel and must be compatible with fuel tank coatings.

(5)(15) "Fuel Tank Coating" is a coating applied to the interior of a fuel tank of an aircraft or space vehicle to protect it from corrosion, including corrosion due to acidic by-products of bacterial growth.

(16) "Hand Application Method" is the application of coatings by manually held non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags and sponges.

(17) "High Temperature Coating" is a coating that must withstand temperatures higher than 350° F (177° C).

(6)(18) "High Temperature Resistant, Thermal Flash Resistant, Rain Erosion Resistant Coating" is a fluoroelastomeric coating that is designed specifically to protect aerospace vehicles from thermonuclear flash, erosion from airborne particles such as rain, ice, sand, etc., and temperatures above 450° F (233° C) resulting from aerodynamic heating.

(19) "High-Volume Low-Pressure (HVLP) Spray" is a coating application method using a pressurized air at a permanent pressure between 0.1 and 10.0 psig, not to exceed 10.0 psig measured at the air cap of the coating application system, and a permanent liquid coating pressure of not more than 50 psig.

(20) "Heat Treatment Scale Inhibitor" is a coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of scale.

(21) "Impact Resistant Coating" is a flexible coating that protects aerospace components, such as aircraft landing gear, landing gear compartments and other under fuselage surfaces, subject to abrasion from impact from runway debris.

(22) "Maskant for Chemical Milling" is a coating applied directly to metal aerospace components to protect surface areas during chemical milling.

(7)(23) "Maskant for Chemical Processing" is a coating applied directly to a aerospace components metal part to protect surface areas during chemical milling, anodizing, aging, bonding, plating, etching, or other chemical surface operations.

(24) "Optical Anti-Reflective Coating" is a coating with a low reflectance in the infrared and visible wavelength range used for anti-reflection on or near optical laser hardware.

(25) "Prepreg Composite Material" is a reinforcing material impregnated with epoxy, polyester or polyurethane resins d ready for application.

(26) "Preservative Oils and Compounds" are non-pigmented coatings which are applied on areas that are not intended to be painted such as cables and exterior surfaces to prevent corrosion and to provide lubrication.

(8)(27) "Pretreatment Coating" is a coating which contains a small quantity at least one-half percent by weight of acid to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion and ease of stripping.

(9)(28) "Primer" is a coating usually applied for purposes of corrosion prevention, protection from the environment, functional fluid resistance and adhesion of subsequent coatings. A primer would include a coating which is formulated to be used as a primer but which, in a specific application, is used as an initial and final coating without subsequent application of a topcoat.

(29) "Rain Erosion Resistant Coating" is a coating that protects leading edges of an aircraft from erosion due to rain, dust and other particles during flight, take-off or landing.

(30) "Research and Development" means aerospace coating operations, including operations performed for purposes of testing and quality control, which are not used for production purposes to directly produce a deliverable product or service, other than the first-article product or service.

(31) "Sealant" is a viscous semisolid material that fills voids in order to seal out water, fuel, other liquids, solids, or in some cases air currents, and is applied with brushes, syringes, caulking guns, or spatulas or is applied by fill and drain method.

(32) "Solid-Film Lubricant" is a very thin coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum disulfate, graphite, polytetrafluoroethylene, or other solids that act as a dry lubricant between tightly fitting surfaces.

(10)(33) "Space Vehicle Coating" is a coating applied to vehicles designed for use beyond the earth's atmosphere.

(34) "Stationary Source" means a unit or an aggregation of units of non-vehicular air contaminant emitting articles, machines, equipment or other contrivances, all of which are located on one property or adjoining properties under the same ownership or entitlement to use and operate. This includes any unit or aggregation of units in the California Coastal Waters off San Diego County.

(35) "Stencil Coating" is an ink or coating which is rolled or brushed using a template to add identifying letters and/or numbers to aerospace components.

(12)(36) "Stripper" is a volatile liquid applied to remove a maskant, paint, paint residue or temporary protective coating.

(37) "Structural Adhesive - Autoclavable" is an adhesive used to bond load-carrying aircraft components which is cured by heat and pressure in an autoclave.

(38) "Structural Adhesive - Non-Autoclavable" is an adhesive cured under ambient conditions which is used to bond load-carrying aircraft components or to perform other critical functions, such as bonding near engines.

(13)(39) "Temporary Protective Coating" is a coating applied to an aerospace component to protect it from mechanical and environmental damage during manufacturing or shipping.

(14)(40) "Thermocontrol Coating" is a coating applied to space vehicle components to reflect heat and formulated to give specific heat reflectance, absorption and emissivity properties, or is a coating required for aerospace engine components to delay component failure due to fire.

(15)(41) "Topcoat" is a coating applied over a primer or directly to the aerospace component as the final coat for purposes such as appearance, identification, or protection.

(42) "Touch-up Coating" is a coating that is used for that portion of the coating operation which is incidental to the main coating process but necessary to cover minor imperfections or to achieve coverage as required.



(43) "Transfer Efficiency" is the ratio of the weight or volume of coating solids adhering to the part being coated to the weight or volume of coating solids used in the application process, expressed as a percentage.

~~(16)(44)~~ "Volatile Organic Compounds (VOC)" for the purpose of this rule means any volatile compound or combination of volatile compounds of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, ammonium carbonate, metallic carbides, and metallic carbonates, and exempt compounds methylene chloride, 1,1,1-trichloroethane and trichlorofluoromethane which may be emitted to the atmosphere during application of and/or subsequent drying or curing of coatings operations or activities subject to this rule. For purposes of calculating the VOC content of a coating, any water or any of the above excluded volatile compounds of carbon shall not be considered to be part of the coating. VOC content of coatings is expressed in grams of VOC per liter of coating as applied, less water and less exempt compounds. VOC content of strippers, surface preparation and cleaning materials is expressed in grams of VOC per liter of material.

(45) "Wet Fastener Installation Coating" is a sealant applied by dipping, brushing, or daubing to fasteners which are installed before the coating is cured.

(d) **STANDARDS**

(1) VOC Limits.

~~(1)(i)~~ A person shall not use apply to in aerospace components coating operations subject to this rule any coating which contains VOC in excess of the following limits on and after the effective date specified:

| <u>Coating Category</u>                 | <u>VOC content, grams per liter of coating as applied, less water and less exempt compounds</u> |               |               |
|---|---|---------------|---------------|
|   | <u>Effective Dates</u><br><u>(Date of adoption)</u>   | <u>7/1/92</u> | <u>7/1/94</u> |
| <u>Adhesive Bonding Primers</u>         |   | <u>850</u>    | <u>250</u>    |
| <u>Adhesives:</u>                       |   |               |               |
| <u>Structural Autoclavable</u>          |   | <u>50</u>     |               |
| <u>Structural Non-Autoclavable</u>      |   | <u>850</u>    |               |
| <u>All Other Adhesives</u>              |   | <u>850</u>    | <u>250</u>    |
| <u>Antichafe Coatings</u>               |   | <u>600</u>    |               |
| <u>Caulking and Smoothing Compounds</u> |   | <u>850</u>    |               |

VOC content, grams per liter of coating as applied,  
less water and less exempt compounds

| <u>Coating Category</u>  | <u>Effective Dates</u>    |               |               |
|--|---------------------------|---------------|---------------|
|  | <u>(Date of adoption)</u> | <u>7/1/92</u> | <u>7/1/94</u> |
| <u>Conformal Coatings</u>  | <u>750</u>                |               |               |
| <u>Dry Lubricative Materials:</u>  |                           |               |               |
| <u>Fasteners Lubrication</u>   | <u>880</u>                | <u>250</u>    |               |
| <u>Non-Fasteners Lubrication</u>   | <u>880</u>                |               |               |
| <u>Electromagnetic Radiation Effect Coatings</u>   | <u>800</u>                |               |               |
| <u>Flight Test Coatings:</u>   |                           |               |               |
| <u>Use on Missiles, Targets</u>  | <u>420</u>                |               |               |
| <u>All Others</u>  | <u>840</u>                |               |               |
| <u>Form Release Agents</u>   | <u>800</u>                |               |               |
| <u>Fuel Tank Adhesives</u>   | <u>850</u>                | <u>620</u>    |               |
| <u>Fuel Tank Coatings</u>  | <u>650</u>                |               | <u>420</u>    |
| <u>Heat Treatment Scale Inhibitors</u>   | <u>880</u>                |               |               |
| <u>High Temperature Coatings</u>   | <u>850</u>                |               |               |
| <u>High Temperature Resistant Thermal Flash<br/>Resistant, Rain Erosion Resistant Coatings</u> | <u>800</u>                |               |               |
| <u>Impact Resistant Coating</u>  | <u>600</u>                |               | <u>420</u>    |
| <u>Maskants (See also (d)(1)(ii) and (iii) for:</u>  |                           |               |               |
| <u>Chemical Milling</u>  | <u>600</u>                | <u>250</u>    |               |
| <u>Chemical Processing</u>   | <u>600</u>                | <u>250</u>    |               |
| <u>Optical Anti-Reflective Coatings</u>  | <u>700</u>                |               |               |
| <u>Preservative Oils and Compounds</u>   | <u>850</u>                |               |               |
| <u>Pretreatment Coatings</u>   | <u>750</u>                |               |               |
| <u>Primers:</u>  |                           |               |               |
| <u>Not Resistant to Phosphate Esters</u>   | <u>350</u>                |               |               |
| <u>Resistant to Phosphate Esters</u>   | <u>650</u>                | <u>350</u>    |               |
| <u>Primers Compatible with Rain Erosion<br/>Resistant Coatings</u>                             | <u>850</u>                |               |               |
| <u>Rain Erosion Resistant Coatings</u>   | <u>690</u>                |               | <u>420</u>    |
| <u>Sealants</u>  | <u>850</u>                | <u>600</u>    |               |
| <u>Solid Film Lubricants:</u>  |                           |               |               |
| <u>Fasteners Lubrication</u>   | <u>880</u>                |               |               |
| <u>Non-Fasteners Lubrication</u>   | <u>880</u>                |               |               |

VOC content, grams per liter of coating as applied,  
less water and less exempt compounds

| <u>Coating Category</u>                   | <u>Effective Dates</u><br><u>(Date of adoption)</u> | <u>7/1/92</u> | <u>7/1/94</u> |
|---|---|---------------|---------------|
| <u>Space Vehicle Coatings:</u>            |   |               |               |
| <u>Electrostatic Discharge Protection</u> |   | <u>800</u>    |               |
| <u>Other Space Vehicle Coatings</u>       |   | <u>1000</u>   |               |
| <u>Adhesives</u>                          |   | <u>800</u>    |               |
| <u>Temporary Protective Coatings</u>      |   | <u>250</u>    |               |
| <u>Thermocontrol Coatings</u>             |   | <u>600</u>    |               |
| <u>Topcoats</u>                           |   | <u>600</u>    | <u>420</u>    |
| <u>Wet Fastener Installation Coatings</u> |   | <u>675</u>    |               |

(ii) Before July 1, 1992, a person shall not use maskants which have a perchloroethylene content, as applied, of greater than 1200 grams per liter of maskant, less water and less exempt compounds, nor which have a VOC content, excluding perchloroethylene, of greater than 600 grams per liter, as applied.

(iii) After July 1, 1992, a person shall not use maskants for chemical processing which have a VOC content, excluding perchloroethylene, of greater than 250 grams per liter, less water and less exempt compound, as applied.

The requirements of Subsection (d)(1) may be met using an Alternative Emission Control Plan (AECP) that has been approved pursuant to Rule 67.1. The AECP shall not include credit for reductions in the emissions of perchloroethylene nor credit for use of perchloroethylene.

(2) Application Equipment

Effective (six months after date of adoption), a person shall not apply coatings in aerospace coating operations subject to this rule except by means of the following application methods:

- (i) Electrostatic spray application, or
- (ii) Flow coat application, or
- (iii) Dip coat application, or
- (iv) Hand application methods, or

(v) Airless spray application for use with maskants and temporary protective coatings only, or

(vi) High-volume low pressure (HVLP) spray application, or

(vii) Other coating application methods that are demonstrated to achieve as a minimum 65 percent transfer efficiency or have transfer efficiency at least equal to one of the above application methods, and which are used in such a manner that parameters under which they were tested are permanent features of the method. Such coating application methods shall be approved in writing by the Air Pollution Control Officer, California Air Resources Board and Environmental Protection Agency.

(3) Coating Strippers.

A person shall not use a stripper in aerospace coating operations unless the stripper:

(i) Contains 400 grams of VOC per liter of material or less as applied, or

(ii) Has a total vapor pressure of VOC of 9.5 mm Hg or less at 68°F (20° C).

(4) Materials for Surface Preparation and Cleaning.

A person shall not use a material for surface preparation or cleaning of an aerospace component unless:

(i) The material contains 200 grams of VOC per liter of material or less as applied, or

(ii) The material has a total vapor pressure of VOC of 45 mm Hg or less at 68°F (20° C), or

(iii) The aerospace component is cleaned in an enclosed surface preparation or cleaning material container which is only opened when accessing parts or adding surface preparation or cleaning materials.

(5) Cleanup Solvents for Application Equipment:

After (six months after adoption) a person shall not clean aerospace coating application equipment unless:

(i) The equipment is cleaned in a solvent container which is covered when not being accessed, which has a facility for draining cleaned parts and the drained solvent is returned to a closed container, or

(ii) The equipment is cleaned in a device which totally encloses the application component parts during washing, rinsing and draining; or

(iii) The cleaning solvent is transferred through the application equipment, without exposure to air, into a container that has in place an apparatus or cover which completely covers the container and has no visible holes, breaks, openings or separations between adjoining components of the container or container cover (the container may be equipped with vents provided that such vents are necessary to comply with applicable fire and safety codes); or

(iv) The cleaning solvent contains 200 grams or less of VOC per liter or has a total vapor pressure of VOC of 20 mm Hg or less at 68°F (20° C).

(6) A person shall not specify the application of a coating subject to this rule for any aerospace coating operation in San Diego County if such application results in a violation of any provision of this rule. This prohibition is applicable to any written or oral contract under the terms of which any coating is applied to any aerospace component within San Diego County.

(7) After (date of adoption plus one year) a person shall not manufacture, sell, offer for sale, or supply any coating for use in aerospace coating operations within San Diego County unless the coating container displays the type of coating category as listed in the table in Subsection (d)(1)(i) and defined in Section (c) under which the coating would be classified.

(8) After (date of adoption plus one year) a person shall not manufacture, sell, offer for sale, or supply any coating for use in aerospace coating operations in San Diego County unless the coating container displays the maximum VOC content of the coating as applied and after any thinning as recommended by the manufacturer. The VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt solvent). The VOC content displayed may be calculated using product formulation data or may be determined using the test method in Section (g)(2).

(9) A person shall not sell, offer for sale, or apply any coating, stripping or cleaning solvent for use in aerospace coating operations in San Diego County that after (date of adoption) was newly formulated to contain or reformulated to increase the content of methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-

12). trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC-115)

(10) After (date of adoption plus one year) a person shall not manufacture, sell, offer for sale, or supply any coating, stripping or cleaning material for use in aerospace coating operations in San Diego County unless the coating, stripping or cleaning material container displays the content of methylene chloride, trichlorofluoromethane ( CFC-11), dichlorodifluoromethane (CFC-12), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC-115).

~~(i) 350 grams per liter of primer as applied. This final VOC limit shall not apply to the application of the following categories of primers until July 1, 1988, provided that primers used prior to July 1, 1988 have a VOC content, as applied, of no more than 650 grams per liter of primer and the requirement to use one or more of such primers is demonstrable and such demonstration is made to the Air Pollution Control Officer upon request and has been approved by the Air Pollution Control Officer, in writing:~~

~~(A) primer applied to aerospace components designed to be exposed to phosphate ester hydraulic fluid; or,~~

~~(B) primer applied to identical aerospace components which require the use of primer resistant to phosphate ester hydraulic fluid because the specific end-use of the components is not known at the time of primer application.~~

~~(ii) 420 grams per liter of topecoat as applied. The final VOC limit shall not apply to the application of topecoats until July 1, 1988, provided that topecoats used prior to July 1, 1988 have a VOC content, as applied, of no more than 600 grams per liter of topecoat.~~

~~(iii) 780 grams per liter of pretreatment coating as applied.~~

~~(iv) 850 grams per liter of adhesive bonding primer as applied.~~

~~(v) 840 grams per liter of flight test coating as applied.~~

~~(vi) 650 grams per liter of fuel tank coating as applied.~~

~~(vii) 800 grams per liter of electromagnetic radiation effect coating as applied.~~

~~(viii) 600 grams per liter of thermocontrol coating as applied.~~

~~(ix) 250 grams per liter of temporary protective coating as applied.~~

~~(x) 600 grams per liter of maskant as applied. This VOC limit shall not apply to:~~

~~(A) maskants that have a perchloroethylene content, as applied, of less than 1200 grams per liter of maskant and which contain no other VOC which, in total, exceed 600 grams per liter, excluding perchloroethylene; or,~~

~~(B) operations where the VOC emissions from the maskant operations are reduced by at least 90 percent by weight.~~

~~(xi) 400 grams per liter of stripper as applied. This VOC content shall not apply to a stripper which has a composite vapor pressure of VOC of 9.5 mm Hg or less at 20° C (68° F).~~

~~(xii) 800 grams per liter of high temperature resistant, thermal flash resistant, rain erosion resistant coating as applied, provided no more than 75 gallons per year of such coating are applied at a stationary source and records of such usage are maintained and made available to the Air Pollution Control Officer upon request.~~

~~(2) A person shall not use VOC which have a composite vapor pressure of 20 mm Hg or greater at a temperature of 20° C (68° F) for cleanup operations excluding stripper, and shall not use, after November 15, 1987, VOC containing materials which have a composite vapor pressure of 45 mm Hg or greater at a temperature of 20° C (68° F) for surface preparation operations, excluding stripper.~~

~~(3) A person shall not use, after January 1, 1986, VOC for the cleanup of spray equipment used in aerospace component coating operations unless 85 percent of the VOC are collected and properly disposed of such that they are not emitted to the atmosphere, or the cleanup materials contain 15 percent or less, by weight, VOC. Containers of cleanup materials shall be closed when not in use.~~

~~(4) A person shall not use other than closed containers for storage of cloth or paper impregnated with solvent containing VOC which are used for surface preparation, cleanup or paint removal.~~

~~(5) Notwithstanding Section (a), any operations subject to this rule shall be subject to Rule 66 until such time that compliance with the emission standards of this rule is required.~~

~~(6) Equivalency: In lieu of complying with the VOC Standards of this rule a person may achieve compliance by means of equivalency. To achieve equivalency a person shall comply with an alternative emission control plan which has been approved in writing by the Air Pollution Control Officer and which satisfies all of the following requirements:~~

~~(i) Emissions of VOC shall be no greater than that amount which would result if the affected coating line or lines complied with all applicable requirements of Subsections (d)(1), (d)(2), (d)(4) and (d)(5). The equivalency averaging period shall be as short as possible and shall be determined by the Air Pollution Control Officer on a case-by-case basis. In no case shall the equivalency averaging period be greater than one calendar week.~~

~~(ii) The plan shall contain credit only for VOC emission reductions achieved on coating lines subject to this rule. The plan shall not include credit for emission reductions required by other rules of this District. Credits for the use of perchloroethylene shall not be allowed.~~

~~(iii) The plan shall include methods acceptable to the Air Pollution Control Officer for demonstrating compliance with the plan on a weekly basis. The person submitting the plan shall maintain such records and submit such information as is required by the Air Pollution Control Officer to determine compliance with the plan.~~

~~(iv) The records required in (iii) shall be available for inspection by the Air Pollution Control Officer on each production day.~~

~~(v) If any District rule is adopted or amended after the approval of the plan which requires emission reductions which are included in the plan, a new plan shall be submitted which does not include credit for those reductions.~~

~~(vi) The person submitting the plan shall reimburse the District for all District costs incurred in reviewing the plan. The District costs shall be determined using the labor rates specified in Rule 40, Schedule 94.~~

~~The Air Pollution Control Officer shall disapprove any plan for achieving compliance by means of equivalency if it is determined that the plan is not reasonably enforceable.~~

**(e) CONTROL EQUIPMENT**

(1) Any person subject to this rule may comply with the provisions of Subsections (d)(1) through (d)(5) by using air pollution control equipment which has been approved in writing by the Air Pollution Control Officer provided that:

(i) The air pollution control equipment has been installed in accordance with an Authority to Construct; and

(ii) The emission collection system which captures and transports VOC emissions to the air pollution control device collects at least 90 percent by weight of the emissions generated by the coating, stripping or cleaning operations, including all VOC emissions from applied coatings; and

(iii) The control device reduces VOC emissions by at least 95 percent by weight.

(2) A person electing to comply with the provisions of Subsections (d)(1) through (d)(5) by using air pollution control equipment shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance Plan for the air pollution control device and emission collection system. Such plan shall:

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsections (e)(1)(ii) and (e)(1)(iii) of this section.

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.



(3) The Operation and Maintenance plan must be submitted to the Air Pollution Control Officer and receive approval prior to operation of the air pollution control equipment. A person subject to the requirements of this section shall implement the plan on the approval of the Air Pollution Control Officer.

**(f) RECORDKEEPING**

Effective (date of adoption) any person using coatings, strippers, thinners, surface preparation materials or cleaning materials in aerospace coating operations shall maintain records in accordance with the following requirements:

(1) Maintain a current list of coatings, strippers, thinners, surface preparation and cleaning materials in use. This list shall provide the data necessary to evaluate compliance, including, but not limited to:

(i) Type and/or category of coating, stripper, thinner, surface preparation or cleaning material used, including manufacturer identification;

(ii) Mix ratio of components;

(iii) Density, VOC content and/or total vapor pressure of VOC of each coating, thinner, stripper, surface preparation and cleaning material, as applied;

(iv) Water and exempt solvents content, density of solvent, and solid content of each coating, as applied.

(2) Maintain daily records showing the amount of each coating, stripper, thinner, cleaning and surface preparation material used.

All records shall be retained on site for at least three years and shall be made available to the District upon request.

**(g) TEST METHODS**

(1) Measurements of VOC content subject to Section (d) of this rule shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) as it exists on (date of adoption) and ASTM Test Method D 4457-85.

(2) Calculations of the VOC content of coatings and strippers less water and less exempt compounds shall be performed in accordance with ASTM Standard Practice D 3960-87 for determining VOC content of paints and related coatings.

(3) Measurements of VOC emissions subject to Section (e) of this rule shall be conducted in accordance with EPA Methods 18 and 25 (40 CFR 60, Appendix A) and with EPA Guidelines for Developing Capture Efficiency Protocols as they exist on (date of adoption)

(4) Measurements of transfer efficiency pursuant to Subsection (d)(2)(vii) of this rule shall be conducted in accordance with the South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" as it exists on (date of adoption).

(5) Total vapor pressure of VOC containing compounds pursuant to Subsections (d)(3)(ii) and (d)(4)(ii) of this rule shall be calculated by using District's "Procedure for Estimating the Vapor Pressure of a Solvent Mixture" as it exists on (date of adoption). If the vapor pressure of the liquid mixture exceeds the limits specified in Subsections (d)(3)(ii) and (d)(4)(ii), as applicable, the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-83, Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.

(6) Measurements of acid content of pretreatment coating pursuant to Subsection (c)(27) of this rule shall be conducted in accordance with ASTM Standard Test Method D 1613-85 for Determination of Acidity in Volatile Solvents and Intermediates used in Paint, Varnish, Lacquer and Related Products or in accordance with the test procedure specified in MIL-C-8514C(ASG) as it exists on (date of adoption).