MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 336
SURFACE COATING OPERATIONS

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MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 336

SURFACE COATING OPERATIONS

SECTION 100 – GENERAL

101 PURPOSE: To limit the emission of volatile organic compounds (VOCs) from surface coating operations.

102 APPLICABILITY: This rule applies to VOC coatings listed in Tables 336-1 through 336-7 of this rule that are not more specifically regulated by another source specific rule within Maricopa County Rules 300 to 359 of Regulation III, as listed in Section 104 of this rule. Additionally:

102.1 Surface-coating activities regulated under this rule include, but are not limited to, the application of coating, coating preparation/mixing at the facility applying the coating, and the cleanup of coating application equipment.

102.2 Section 103 sets forth partial exemptions for certain materials or uses employed by a surface coating operation subject to this rule.

102.3 This rule is not applicable to coatings having a VOC content, minus exempt compounds, of less than 0.15lb VOC/gal (18g/L) nor to solvents having a VOC content of material less than 0.15lb VOC/gal.

102.4 In addition to this rule, facilities may be subject to New Source Performance Standards (NSPS) in Rule 360 and/or to National Emission Standards for Hazardous Air Pollutants (NESHAP) in Rule 370 of these rules.

103 PARTIAL EXEMPTIONS:

103.1 Qualified Materials Exemption:

a. Leak-Preventing Materials: Sealants, caulking, and similar materials used on the following substrates for the primary purpose of leak prevention are exempt from this rule:

   (1) Non-metallic substrates; and

   (2) Substrates made post manufacture, such as, but not limited to, old joints and seals on pipe and valve assemblies.

b. Certain Joint Fillers: Caulking and beaded sealants used to fill gaps or to fill joints between surfaces are exempt from this rule, except those used in manufacturing other metal parts and products or in the manufacturing of cans.
103.2 **Extreme Performance Coatings Exemption:** Extreme performance coatings are exempt from the VOC limits in Tables 336-1 through 336-7 of this rule but not from any other sections of this rule when used under the following conditions:

a. On internal combustion engine components that are normally above 250°F (121°C) during use; or

b. At temperatures above 250°F (121°C) on items that are both included under the North American Industry Classifications System (NAICS) codes 334210, 334220, 334290, 334416, 334417, 334418, 334419, 334310 or 336419 and are electronic products in space vehicles and/or are communications equipment.

103.3 **Plastic Parts Coating Exemption:** The following types of plastic parts coatings are exempt from the VOC limits in Tables 336-1 through 336-7 of this rule but are subject to the remaining provisions of this rule.

a. Touch-up and repair coatings.

b. Stencil coatings applied on clear or transparent substrates.

c. Clear or translucent coatings.

d. Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings.

e. Non-compliant coatings: After a sufficient demonstration by the owner or operator that no compliant substitute coating exists, an owner or operator is permitted to use no more than 50 gal/yr. of an individual non-compliant coating, not exceeding 200 gal/yr total usage of all such coatings provided such coatings are approved for use in a Maricopa County Air Pollution Permit.

f. Reflective coatings applied to highway cones.

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

h. Electromagnetic Interference (EMI)/ Radio-Frequency Interference (RFI) shielding coatings.

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

j. Business machine plastic part coatings:
   
   (1) Texture coatings.
   
   (2) Vacuum metalizing coatings.
   
   (3) Gloss reducers.
   
   (4) Adhesion primers.
   
   (5) Electrostatic preparation coatings.
   
   (6) Resist coatings.
   
   (7) Stencil coatings.
103.4 **Application Methods Exemption:** The following coatings are exempt from application methods in Section 302 of this rule but are subject to the remaining provisions of this rule:

a. Metal part texture coatings.

b. Metal part touch-up and repair coatings.

c. Plastic part coating for airbrush operations using less than 5 gal/yr of coating.

d. Extreme high gloss coatings for pleasure craft surface coating operations.

103.5 **Application Methods and VOC-Limit Exemption:** The following surface coating operations are exempt from Sections 301, 302, and 305 of this rule but shall comply with Section 303, 304, and 500 of this rule.

a. Aerosol can spray coating.

b. Low Usage of VOC Coatings Which Exceed VOC Thresholds for Coating Categories Listed in Tables 336-1 Through 336-7 of this Rule: Non-compliant coatings are permitted for use if the annual aggregate usage does not exceed 55 gallons per year (208 liters/yr.) at a facility. The owner or operator shall update usage records of these coatings at the end of each month, pursuant to Section 501.2 of this rule.

c. A Small Surface-Coating Source: A facility that has less than a 2 ton/year VOC emission limit in a Maricopa County Air Pollution Permit for surface coating operations regulated by this rule.

d. A Quality Class Q protective coating that is used on equipment, structures, and/or components within a containment facility of a nuclear power plant.

e. A tactical military-equipment coating that is approved in a Maricopa County Air Pollution Permit subsequent to a sufficient demonstration by the user that no compliant substitute exists.

f. **Large Appliance Coating:**

   (1) Stencil coatings.

   (2) Safety-indicating coatings.

   (3) Solid-film lubricants.

   (4) Electric-insulating and thermal-conducting coatings.

   (5) Coating application utilizing aerosol can spray coating.

g. **Metal Parts Coating:**

   (1) Stencil coatings.

   (2) Safety-indicating coatings.

   (3) Solid-film lubricants.

   (4) Electric-insulating and thermal-conducting coatings.

   (5) Magnetic data storage disk coatings.

   (6) Plastic extruded onto metal parts to form a coating.
104 TOTAL CATEGORICAL EXEMPTIONS: This rule does not apply to the following operations:

104.1 Aerospace coating operations (Rule 348).
104.2 Architectural coatings including buildings and erected structures (Rule 335).
104.3 Solvent cleaning or stripping a surface for coating or other purpose (Rule 331).
104.4 Marine vessel exterior refinishing (EPA 453/B-97-001).
104.5 Printing and graphic arts coating (Rule 337).
104.6 Semiconductor manufacturing (Rule 338).
104.7 Coating or refinishing a highway vehicle or mobile equipment (Rule 345).
104.8 Coating wood furniture and fixtures (Rule 342).
104.9 Coating wood millwork (Rule 346).

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County Air Pollution Control Rules, the definitions in this rule take precedence.

201 ADHESIVE: A material used for the primary purpose of bonding two or more surfaces together.

202 ADHESION PRIMER: A coating that is applied to a plastic polymer part to promote the adhesion of a subsequent coating.

203 AEROSOL CAN SPRAY COATING: A coating sold in a hand-held, pressurized, non-refillable container, of less than 22 fluid ounces (0.66 liter) capacity, and that is expelled from the container in a finely divided form when a valve on the container is depressed.

204 AIR-DRIED COATING: A coating dried by the use of air or forced warm air at temperatures up to and including 200°F (93.3°C).

205 ALTERNATIVE APPLICATION METHODS: Any method approved by the Administrator as HVLP-equivalent.

206 ANTIFOULANT COATING: A coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms, and registered with the United States Environmental Protection Agency (EPA) as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136).

207 BAKED COATING: A coating that is dried or cured in an oven in which the oven temperature exceeds 200°F (93.3°C).

208 BUSINESS MACHINE: A device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission, such as:

208.1 Products classified as typewriters under SIC Code 3572;
208.2 Products classified as electronic computing devices under SIC Code 3573;
208.3 Products classified as calculating and accounting machines under SIC Code 3574;
208.4 Products classified as telephone and telegraph equipment under SIC Code 3661;
208.5 Products classified as office machines, not elsewhere classified, under SIC Code 3579; and (6) photocopy machines, a subcategory of products classified as photographic equipment under SIC Code 3861.

209 CAMOUFLAGE COATING: A coating used, principally by the military, to conceal equipment from detection.

210 CAN COATING: A coating either used in the production of metal cans applied to the surface(s) of formed cans or applied at a can making facility to the surface(s) of flat metal sheets or strips that are formed there into cans.

211 CAN PRINTING INK: A fluid or viscous formulation used in can printing that imparts design, pattern, and/or alphanumeric symbols to a can.

212 CLEAR COAT: A coating that lacks color or opacity or is transparent.

213 COATING APPLICATION EQUIPMENT: Any equipment including, but not limited to, spray guns, wands, rollers, brushes used to apply or cover a surface with a coating for either aesthetic, protection or other purpose.

214 COIL COATING: A coating applied to the surface(s) of flat metal sheets or strips that is formed into rolls or coils not used to make cans.

215 DAY: A period of 24 consecutive hours beginning at midnight.

216 DIP COATING: A method of applying a coating to a substrate by submersion into and removal from a coating bath.

217 DRUM COATING: Coating of a cylindrical metal shipping container larger than 12 gallons capacity but no larger than 110 gallons capacity.

218 ELECTRIC DISSIPATING COATING: A coating that rapidly dissipates a high-voltage electric charge.

219 ELECTRIC INSULATING VARNISH: 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.

220 ELECTROMAGNETIC INTERFERENCE (EMI)/RADIO-FREQUENCY INTERFERENCE (RFI) SHIELDING: A coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference, or static discharge.
221 **ELECTROSTATIC SYSTEM:** A method of applying atomized paint by electrically charging the coating and the object being coated with opposing charges. A higher proportion of the coating reaches and coats the object than would occur in the absence of a charge.

222 **EMISSION CONTROL SYSTEM (ECS):** A system, approved in writing by the Control Officer, to reduce emissions of volatile organic compounds. Such a system consists of an emissions collection system and an emissions processing subsystem.

223 **END SEALING COMPOUND:** A compound which is coated onto can ends and functions as a gasket when the end is attached to the can.

224 **ETCHING FILLER:** A coating that contains less than 23 percent solids by weight and at least ½ percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

225 **EXEMPT COMPOUNDS:** The federally listed non-precursor organic compounds, which have been determined to have negligible photochemical reactivity as listed in 40 CFR 51.100(s)(1) and in Appendix G of these rules.

226 **EXTERIOR CAN BASECOAT:** A coating applied to the exterior of a can to provide protection for the metal or to provide background for any lithographic or printing operation.

227 **EXTREME HIGH-GLOSS COATING:** A coating when tested by the ASTM D-523 adopted in 1980 shows reflectance of 75 or more on a 60° meter.

228 **EXTREME-PERFORMANCE COATING:** A coating used on a surface where the coated surface in its intended use is at temperatures consistently in excess of 250°F (121°C).

229 **FABRIC:** A textile material. Non-manufactured items from nature are not fabric except for natural threads, fibers, filaments, and similar that have been manufactured into textile fabric.

230 **FABRIC COATING:** A decorative or protective coating or reinforcing material applied either onto or impregnated into textile fabric.

231 **FILLER:** A relatively non-adhesive substance added to an adhesive to improve its working properties, permanence, strength, or other qualities.

232 **FILM COATING:** A coating applied in a web coating process on film substrate other than paper or fabric, including, but not limited to, typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap.

233 **FINISH PRIMER/SURFAKER:** A coating applied for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections. A finish primer/surfacer shall have a wet film thickness of less than 10 mils as determined by ASTM Method D 1212-85. A one-component finish primer is any finish primer where the coating resin cures without the need for an added catalyst or converter. A two-component finish primer is any finish primer where the coating resin cures only when a catalyst or converter is added.
FLEXIBLE PLASTIC PART OR PRODUCT: A plastic part or product designed to withstand significant deformation without damaging it for its intended use. Not included are flexible plastic parts that are found on a can, coil, metal furniture, or large appliance, or that are already a part of an aerospace component, highway vehicle, mobile equipment, architectural building or structure, or a previously coated marine-vessel.

FLOW COAT: A non-atomized technique of applying coatings to a substrate with a fluid nozzle in a fan pattern with no air supplied to the nozzle.

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

GLOSS REDUCER: A coating that is applied to a plastic part solely to reduce the shine of the part and is applied at a thickness of less than or equal to 0.5 mils of coating solids.

HAND APPLICATION METHODS: Application of coatings by non-mechanical, hand-held equipment including, but not limited to, paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

HEAT-RESISTANT COATING: A coating that must withstand a temperature of at least 400°F (204°C) during normal use.

HIGH PERFORMANCE ARCHITECTURAL COATING: A coating used to protect architectural subsections and that meets the requirements of the Architectural Aluminum Manufacturer Association's publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).

HIGH BUILD PRIMER/SURFACER: A coating applied for purposes of providing corrosion resistance, adhesion of subsequent coatings, or a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections. A high-build primer/surfacer shall have a wet-film thickness of 10 mils or more as determined by ASTM Method D1212-85.

HIGH GLOSS COATING: A coating that achieves at least 85 percent reflectance on a 60° meter when tested by ASTM D 523-89.

HIGH TEMPERATURE COATING: A coating that is certified to withstand a temperature of 1000°F (537°C) for 24 hours.

HIGH-VOLUME, LOW PRESSURE (HVLP) SPRAY GUN: Spray equipment that is used to apply coating by means of a spray gun that operates at 10 psig of atomizing air pressure or less at the center of the air cap. A permanently affixed manufacturer’s gun identification or manufacturer’s gun literature shall identify and be proof of an HVLP gun.
HIGHWAY VEHICLE: A vehicle that is physically capable of being driven upon a highway including, but not limited to, cars, pickups, vans, trucks, truck-tractors, motor-homes, motorcycles, and utility vehicles.

INTERIOR BASECOAT: A coating applied to the interior of a can to provide a protective lining between the intended contents and the metal shell of the can.

INTERIOR BODY SPRAY: A coating sprayed onto the interior of a can to provide a protective film between the intended contents and the metal shell of the can.

IN USE OR HANDLED: Actively engaging the materials with activities such as mixing, depositing, brushing, rolling, padding, wiping or removing or transferring material into or out of the container.

LARGE APPLIANCE: A door, case, lid, panel, or interior support part of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, evaporative coolers, and other similar products.

LOW PRESSURE SPRAY GUN: An air-atomized spray gun, which by design, functions best at air cap pressures below 10 psig (0.7 bar), measured according to Section 503.1(d) of this rule, and for which the manufacturer makes no public claims that the gun can be used effectively above 12 psig (0.8 bar).

MARINE VESSEL: A tugboat, tanker, freighter, passenger ship, barge, or other boat, ship or watercraft used for commercial purposes. This definition excludes those boats used primarily for recreational purposes.

METAL FURNITURE: Furniture made of metal or any metal part which will be assembled with other parts made of metal or other material(s) to form a furniture piece.

METALLIC COATING: A coating that contains more than 5 grams of metal particles per liter of coating as applied.

MILITARY SPECIFICATION COATING: A coating that has a formulation that has been approved by a United States Military Agency for use on military equipment.

MOBILE EQUIPMENT: Equipment that is physically capable of being driven or drawn on a highway including, but not limited to, construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (wheel tractor, plow, pesticide sprayer); hauling equipment (truck trailers, utility bodies, camper shells); and miscellaneous equipment (street cleaners, mopeds, golf carts).

MOLD-SEAL COATING: The initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

MULTI-COLORED COATING: A coating that is packaged in a single container, applied in a single coat and exhibits more than one color when applied.
258  **MULTI-COMPONENT COATING:** A coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, prior to application to form an acceptable dry film.

259  **ONE-COMPONENT COATING:** A coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner necessary to reduce the viscosity is not considered a component.

260  **OPTICAL COATING:** A coating applied to an optical lens.

261  **OTHER METAL PARTS AND PRODUCTS:** Any metal part or product, excluding the following items that are made of metal: can, coil, furniture, large appliance, aerospace component, metal foil, metal textile fabric, semiconductor metal, highway vehicle, mobile equipment, an architectural building or structure, a previously coated marine-vessel.

262  **OVERVARNISH:** A coating applied to a can to reduce the coefficient of friction, to provide gloss, or to protect the finish against abrasion and/or corrosion.

263  **PAN BACKING COATING:** A coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating element.

264  **PAPER COATING:** A coating applied on or impregnated into paper, including, but not limited to, adhesive tapes, book covers, post cards, office copier paper, and drafting paper.

265  **PLASTIC:** Substrates made from one or more resins and may be solid, porous, flexible, or rigid. Plastics include fiber reinforced plastic composites. Any solid, synthetic: resin, polymer, or elastomer, except rubber. For the purposes of this rule, plastic film is considered film; fabric and paper made of polymeric plastic fibers are considered fabric and paper, respectively.

266  **PLEASURE CRAFT:** Vessels which are manufactured or operated primarily for recreational purposes, or leased, rented, or chartered to a person or business for recreational purposes.

267  **PLEASURE CRAFT COATING:** A marine coating that is applied to or intended by the manufacturer to be applied to pleasure craft.

268  **PREFABRICATED ARCHITECTURAL COMPONENT COATING:** A coating applied to metal parts and products which are to be used as an architectural structure.

269  **PRESSURE SENSITIVE TAPE OR LABEL:** A flexible strip of paper, backing material, or other material that is coated on one side with a permanently tacky adhesive which will adhere to a variety of surfaces with light pressure.

270  **PRETREATMENT COATING:** A coating containing no more than 12 percent solids by weight, and at least ½ percent acid, by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion and ease of stripping.

271  **PRETREATMENT WASH PRIMER:** A coating that contains no more than 12 percent solids, by weight, and at least ½ percent acids, by weight, is used to provide surface etching, and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.
PRIMER: A coating applied directly to substrate for any one or combination of the following purposes: corrosion prevention, protection from the environment, functional fluid resistance, or adhesion of subsequent coatings.

QUALITY CLASS Q: A system, structure, coating or other component that, if defective or inoperable, could cause or increase the severity of a nuclear incident, thereby imposing undue risk to the health and safety of the public.

REFRIGERATED GLASS DOOR COATING: A two-component coating or ink used for the manufacturing of refrigerated glass doors that forms a decorative or protective film and provides a substrate for bonding materials such as seals, spacers, and sealants.

REPAIR COATING: A coating used to recoat the portion of a completed finish that suffered post-production damage at the facility where the finish was applied.

SHOCK-FREE COATING: A coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and having resistance to breaking down under high voltage.

SILICONE RELEASE COATING: A resin coating, the major cured portion of which is silicone resin, having as its primary function the release of food products from metal surfaces such as baking pans.

SMALL SURFACE-COATING SOURCE (SSCS): A facility from which the total VOC emissions for all surface coating operations that are subject to this rule without, or prior to, any emission control, is less than 2 tons/yr (1814 kg); as demonstrated by both adequate records of coating and diluent use (according to Section 501.2 of this rule) and a separate tally of the number of days each month such coating operations occur.

SOLAR-ABSORBENT COATING: A coating with the prime purpose of absorption of solar radiation.

STENCIL COATING: An ink or a coating that is rolled or brushed onto a template or stamp in order to add identifying letters, symbols and/or numbers.

STRIPPABLE BOOTH COATING: A temporary coating that is applied to spray booth surfaces to receive the overspray and protect the surfaces, and which is designed to readily be pulled off the substrate in strips or sheets, and disposed of.

SURFACE COATING: A liquid, fluid, or mastic composition that is converted to a solid (or semi-solid) protective, decorative, or adherent film or deposit after application as a thin layer. Surface coating is generally distinct and different from impregnation and from applying adhesive for bonding purposes.

SURFACE COATING OPERATION: Preparation, handling, mixing, and application of surface coating, and cleanup of application equipment and enclosures at a facility where surface coating is applied.

TEXTURE COATING: A coating that is applied which, in its finished form, consists of discrete raised spots of the coating.
THREE-PIECE CAN SIDE-SEAM COATING: A coating sprayed onto the interior and/or exterior of a can body seam on a three-piece can to protect the exposed metal.

TOPCOAT: The final, permanent, coating formulation that completes the finish on a surface.

TOUCH-UP COATING: A coating used to cover minor coating imperfections after the main coating operation. This includes touch-up coating that accompanies the purchase of an object already coated with that coating.

TRANSFER EFFICIENCY: The ratio of the weight of coating solids adhering to the part being coated to the weight of coating solids used in the application process expressed as a percentage.

TWO-PIECE CAN EXTERIOR END COATING: A coating applied to the exterior end of a can to provide protection to the metal.

VACUUM METALIZING COATING: The undercoat applied to the substrate on which metal is deposited or the overcoat applied directly to the metal film. Vacuum metalizing is the process of evaporating metals inside a vacuum chamber and then bonding the metals to the desired substrate to achieve a uniform metalized layer.

VINYL COATING: A decorative or protective coating or reinforcing coating applied over vinyl-coated textile fabric or vinyl sheets.

VOC ACTUAL: The weight of volatile organic compounds minus the weight of water and minus the weight of exempt organic compounds divided by the total volume of the materials. Units of VOC Actual are in pounds of VOC per gallon (or grams per liter) of material and shall be calculated using the following equation:

\[
\text{VOC Actual} = \frac{W_s - W_w - W_{es}}{V_m}
\]

Using consistently either English or metric measures in the calculations, where:

\[W_s\] = weight of all volatile material in pounds (or grams) including VOC, water, non-precursor organic compounds and dissolved vapors

\[W_w\] = weight of water in pounds (or grams)

\[W_{es}\] = weight of all non-precursor organic compounds in pounds (or grams)

\[V_m\] = volume of total material in gallons (or liters)

VOC CONTENT: The organic chemicals in a material that have a vapor pressure at ordinary room temperature. This vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air. The term VOC content is a general term used throughout the rule and includes VOC, VOC Actual and VOC Regulatory.

VOC REGULATORY: The weight of volatile organic compounds minus the weight of water and minus the weight of exempt compounds divided by the volume of material minus the volume of water and minus the volume of exempt compounds. Units of VOC.
Regulatory are in pounds of VOC per gallon (or grams per liter) of material and shall be calculated using the following equation:

\[
\text{VOC Regulatory} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}
\]

Using consistently either English or metric measures in the calculations, where:

- \(W_s\) = weight of all volatile material in pounds (or grams), including VOC, water, non-precursor organic compounds and dissolved vapors
- \(W_w\) = weight of water in pounds (or grams)
- \(W_{es}\) = weight of all non-precursor organic compounds in pounds (or grams)
- \(V_m\) = volume of total material in gallons (or liters)
- \(V_w\) = volume of water in gallons (or liters)
- \(V_{es}\) = volume of all non-precursor organic compounds in gallons (or liters)

**SECTION 300 – STANDARDS**

**301 SURFACE COATINGS**: An owner or operator shall comply with one of the following for all applications of surface coatings:

- **301.1** Meet the limits in Tables 336-1 through 336-7 of this rule. Coating limits are calculated as VOC Regulatory (as applied). Compliance will be determined based on the VOC content limit, as expressed in metric units. English units are provided for information only; or

- **301.2** Operate an Emission Control System (ECS) in accordance with Section 305 of this rule when applying a coating that exceeds the VOC limits in Tables 336-1 through 336-7 of this rule. All VOC coatings used that exceed the VOC limits in Tables 336-1 through 336-7 of this rule shall be clearly labeled such that coating-operators are informed that an ECS must be used during application of surface coatings; or

- **301.3** Qualify for an exemption under Sections 103 or 104 of this rule.
Table 336-1
Coating Limits for Metal Parts and Products

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>Air Dried</th>
<th></th>
<th>Baked</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g VOC/l</td>
<td>lb VOC/gal</td>
<td>g VOC/l</td>
<td>lb VOC/gal</td>
</tr>
<tr>
<td>Camouflage</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Drum Coating, New, Exterior</td>
<td>340</td>
<td>2.8</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>Drum Coating, New, Interior</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Drum Coating, Reconditioned, Exterior</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Drum Coating, Reconditioned, Interior</td>
<td>500</td>
<td>4.2</td>
<td>500</td>
<td>4.2</td>
</tr>
<tr>
<td>Electric-Insulating Varnish</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Etching Filler</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Extreme High-Gloss</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Extreme Performance</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Heat-Resistant</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>High Performance Architectural</td>
<td>740</td>
<td>6.2</td>
<td>740</td>
<td>6.2</td>
</tr>
<tr>
<td>High Temperature</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Metallic</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Military Specification</td>
<td>340</td>
<td>2.8</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>Mold-Seal Coating</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Multi-Component</td>
<td>340</td>
<td>2.8</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>One-Component</td>
<td>340</td>
<td>2.8</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>Other Metal Parts and Products: Includes Non-Adhesive Coating, Adhesive, Adhesive Primer, Beaded Sealant, and Caulking</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Pan Backing</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Prefabricated Architectural Multi-Component</td>
<td>420</td>
<td>3.5</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>Prefabricated Architectural One-Component</td>
<td>420</td>
<td>3.5</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>Pretreatment Coating</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Repair</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Silicone Release</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Solar-Absorbent</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>240</td>
<td>2.0</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Touch-up</td>
<td>420</td>
<td>3.5</td>
<td>360</td>
<td>3.0</td>
</tr>
<tr>
<td>Vacuum Metalizing</td>
<td>420</td>
<td>3.5</td>
<td>420</td>
<td>3.5</td>
</tr>
</tbody>
</table>
### Table 336-2
Coating Limits for Cans and Coils

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>g VOC/l</th>
<th>lb VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strippable Booth Coating (applies to both can and coil coating categories)</td>
<td>240</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Can Coating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can Printing Ink</td>
<td>300</td>
<td>2.5</td>
</tr>
<tr>
<td>End Sealing Compound</td>
<td>440</td>
<td>3.7</td>
</tr>
<tr>
<td>Sheet Basecoat (Exterior and Interior) and Overvarnish</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>Three-Piece Can Side-Seam Spray</td>
<td>660</td>
<td>5.5</td>
</tr>
<tr>
<td>Two and Three-Piece Can Interior Body Spray</td>
<td>510</td>
<td>4.2</td>
</tr>
<tr>
<td>Two-Piece Can Exterior (Basecoat and Overvarnish)</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>Two-Piece Can Exterior End (Spray or Roll Coat)</td>
<td>510</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Coil Coating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>310</td>
<td>2.6</td>
</tr>
</tbody>
</table>

### Table 336-3
Coating Limits for Plastic Parts and Products

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>g VOC/l</th>
<th>lb VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Dissipating Coatings and Shock-Free Coatings</td>
<td>800</td>
<td>6.7</td>
</tr>
<tr>
<td>Extreme Performance</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>(2-pack coatings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flexible Plastic Parts and Products</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basecoat</td>
<td>540</td>
<td>4.5</td>
</tr>
<tr>
<td>Clearcoat</td>
<td>540</td>
<td>4.5</td>
</tr>
<tr>
<td>Color Topcoat</td>
<td>450</td>
<td>3.8</td>
</tr>
<tr>
<td>Primer</td>
<td>490</td>
<td>4.1</td>
</tr>
<tr>
<td>Metallic</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Military Specification</td>
<td>340 (1 pack)</td>
<td>2.8 (1 pack)</td>
</tr>
<tr>
<td>(2 pack)</td>
<td>420</td>
<td>3.5 (2 pack)</td>
</tr>
<tr>
<td>Mold-Seal Coating</td>
<td>760</td>
<td>6.3</td>
</tr>
<tr>
<td>Multi-Colored Coating</td>
<td>680</td>
<td>5.7</td>
</tr>
<tr>
<td>Multi-Component</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>One-Component</td>
<td>280</td>
<td>2.3</td>
</tr>
<tr>
<td>Optical Coatings</td>
<td>800</td>
<td>6.7</td>
</tr>
<tr>
<td>Plastic Parts and Products that Are Not Defined as Flexible</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>240</td>
<td>2.0</td>
</tr>
<tr>
<td>Vacuum Metalizing</td>
<td>800</td>
<td>6.7</td>
</tr>
</tbody>
</table>

### Table 336-4
Coating Limits for Business Machines

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>g VOC/l</th>
<th>lb VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fog Coat</td>
<td>260</td>
<td>2.2</td>
</tr>
</tbody>
</table>
### Table 336-4
Coating Limits for Business Machines

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>g VOC/l</th>
<th>lb VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer</td>
<td>350</td>
<td>2.9</td>
</tr>
<tr>
<td>Repair</td>
<td>350</td>
<td>2.9</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>240</td>
<td>2.0</td>
</tr>
<tr>
<td>Texture Coating</td>
<td>350</td>
<td>2.9</td>
</tr>
<tr>
<td>Topcoat</td>
<td>350</td>
<td>2.9</td>
</tr>
<tr>
<td>Touch-up</td>
<td>350</td>
<td>2.9</td>
</tr>
</tbody>
</table>

### Table 336-5
Coating Limits for Metal Furniture and Large Appliances

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>Air Dried</th>
<th>Baked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g VOC/l</td>
<td>lb VOC/gal</td>
</tr>
<tr>
<td>Extreme High Gloss</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>Extreme Performance</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Heat-Resistant</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Metallic</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Multi-Component</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>One-Component</td>
<td>275</td>
<td>2.3</td>
</tr>
<tr>
<td>Pretreatment Coating</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Refrigerated Glass Door Coating</td>
<td>480</td>
<td>4.0</td>
</tr>
<tr>
<td>Solar-Absorbent</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>240</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Table 336-6
Coating Limits for Paper, Fabric, Film, Foil, and Vinyl

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>kg VOC/kg Coating (lb VOC/lb solids)</th>
<th>kg VOC/kg Solids (lb VOC/lb solids)</th>
<th>g VOC/l</th>
<th>lb VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>–</td>
<td>–</td>
<td>350</td>
<td>2.9</td>
</tr>
<tr>
<td>Paper, Film, and Foil Surface Coating (Not Including Pressure Sensitive Tape and Label)</td>
<td>0.08</td>
<td>0.40</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Pressure Sensitive Tape and Label Surface Coating</td>
<td>0.067</td>
<td>0.20</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>–</td>
<td>–</td>
<td>240</td>
<td>2.0</td>
</tr>
<tr>
<td>Vinyl</td>
<td>–</td>
<td>–</td>
<td>450</td>
<td>3.8</td>
</tr>
</tbody>
</table>
Table 336-7
Coating Limits for Pleasure Craft

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>g VOC/l</th>
<th>lbs VOC/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Other Pleasure Craft Surface Coatings for Metal or Plastic</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Aluminum Substrate Antifoulant Coating</td>
<td>560</td>
<td>4.7</td>
</tr>
<tr>
<td>Extreme High Gloss Topcoat</td>
<td>600</td>
<td>5.2</td>
</tr>
<tr>
<td>Finish Primer/Surfacer</td>
<td>600</td>
<td>5.2</td>
</tr>
<tr>
<td>High Build Primer/Surfacer</td>
<td>340</td>
<td>2.8</td>
</tr>
<tr>
<td>High Gloss Topcoat</td>
<td>420</td>
<td>3.5</td>
</tr>
<tr>
<td>Other Substrate Antifoulant Coating</td>
<td>400</td>
<td>3.4</td>
</tr>
<tr>
<td>Pretreatment Wash Primer</td>
<td>780</td>
<td>6.5</td>
</tr>
<tr>
<td>Strippable Booth Coating</td>
<td>240</td>
<td>2.0</td>
</tr>
</tbody>
</table>

302 APPLICATION METHODS FOR SURFACE COATINGS:

302.1 An owner or operator shall use one of the following methods for all applications of surface coating materials containing more than 2 pounds of VOC per gallon (240 g/L), minus exempt compounds (VOC Regulatory):

a. HVLP spray gun;

b. Electrostatic system;

c. A system that atomizes principally by hydraulic pressure, including “airless” and “air assisted airless”;

d. Hand application methods, including but not limited to;
   (1) Flow Coat;
   (2) Roll Coat;
   (3) Dip-Coating;

e. An Alternative Application Method: Any method approved by the Administrator as HVLP-equivalent.

302.2 An owner or operator is allowed to use an application method other than that described in Section 302.1 of this rule:

a. For applications of surface coating materials containing less than or equal to 2 pounds of VOC per gallon (240 g/L), minus exempt compounds (VOC Regulatory).

b. For applications of surface coating materials containing more than 2 pounds of VOC per gallon (240 g/L), minus exempt compounds (VOC Regulatory):
   (1) If VOC emissions from the finishing application are captured and directed to an ECS complying with the provisions of Section 305 of this rule; or
   (2) If coating the inside of pipes and tubes with a wand-style applicator; or
   (3) If using an airbrush or other small gun that has a reservoir capacity not exceeding 250 cc (8.8 fl. oz.) and is used solely for detailing, lettering, touch-up, and/or repair.
CLEANUP OF APPLICATION EQUIPMENT: An owner or operator shall comply with the following when using VOC-containing material to clean application equipment:

303.1 Spray-Gun Cleaning Requirements:

a. Clean spray-guns without spraying or atomizing a solvent cleaner with the gun.

b. Spray-Gun Cleaning Machine: Use a spray-gun cleaning machine that complies with the following requirements unless the owner or operator complies with the manual spray-gun cleaning requirements in Section 303.2 of this rule.

(1) Spray-Gun Cleaning Machine-General Requirements: The spray-gun cleaning machine shall meet all of the following requirements:

(a) Be designed to clean spray-guns.

(b) Have at least one pump that drives solvent cleaner through and over the spray-gun.

(c) Have a basin which permits containment of the solvent cleaner.

(d) Be kept in proper repair and free from liquid leaks.

(e) Be fitted with a cover.

(f) Be located on-site where the spray application occurs; and

(g) Be operated and maintained according to manufacturer’s or distributor’s instructions.

(h) Porous Material:

(i) Do not clean nor use porous or absorbent materials to clean parts or products in a cleaning machine. For the purpose of this rule, porous or absorbent materials include, but are not limited to, cloth, leather, wood, and rope.

(ii) Do not place an object with a sealed wood handle, including a brush, in or on a cleaning machine.

(iii) Do not place porous or absorbent materials, including, but not limited to, cloth, leather, wood, and rope in or on a cleaning machine.

(2) Automatic Spray-Gun Cleaning Machine: An automatic spray-gun cleaning machine shall have a self-covering or enclosing cover feature that in the cover’s closed position allows no gaps exceeding 1/8 inch (3 mm) between the cover and the cabinet. This self-enclosing feature shall be maintained and consistently cover or enclose to these gap limits.

(3) Non-Automatic Remote Reservoir Cleaning Machine: A non-automatic remote reservoir cleaning machine shall meet all of the following requirements:

(a) Drain solvent cleaner from the sink/work-space into a remote reservoir when work-space is not in use;

(b) Machine reservoir shall not have cumulative total openings, including the drain opening(s) exceeding two square inches in area; and
(c) The base of the sink/work-space may function as the reservoir’s top surface, as long as the fit/seal between sink base and reservoir container allows the reservoir to meet the opening limits specified in Section 303.1(b)(3)(b) of this rule.

303.2 Manual Spray-Gun Cleaning Requirements: An owner or operator manually cleaning spray-guns shall comply with the following requirements:

a. Disassembled spray-guns must be cleaned by non-mechanical, hand-held method of application of cleaners.

b. If disassembled spray-guns are soaked they shall remain covered at all times, except when the application equipment is being handled in the container or transferred into or out of the container.

304 WORK PRACTICES-HANDLING, DISPOSAL AND STORAGE OF VOC-CONTAINING MATERIAL: An owner or operator of any surface coating facility shall store, handle, and dispose of VOC-containing material in a manner that prevents the evaporation of VOC to the atmosphere. Work practices limiting VOC emissions include, but are not limited to, all of the following:

304.1 Use and Storage: An owner or operator shall cover and keep covered each VOC-containing material which is not currently in use. An owner or operator shall store finishing and cleaning materials in closed or covered leak-free containers.

304.2 Disposal of VOC-Containing Material: An owner or operator shall store all VOC-containing materials intended for disposal including, but not limited to, rags, waste coatings, waste brushes, waste rollers, waste applicators, waste solvents, and their residues, in closed, leak free containers. The containers shall remain covered with a leak tight cover, when not in use.

304.3 Minimize spills of VOC-containing coatings, thinners, and coating-related waste materials.

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

304.5 Containers in which VOC-containing materials are stored must have a legible label identifying the container’s contents.

305 EMISSION CONTROL SYSTEM (ECS) REQUIREMENTS:

305.1 ECS Control Efficiencies: To meet the requirements pursuant to Section 301.2 of this rule, an ECS shall be operated as follows:

a. Overall ECS Efficiency: The overall control efficiency of an ECS shall be determined by multiplying the capture efficiency by the destruction efficiency of the control device expressed as a percentage. An owner or operator, who chooses to use an ECS instead of meeting the limits in Tables 336-1 through 336-7 of this rule and specified application methods, shall operate an ECS that has a 90 percent overall ECS efficiency.

b. Alternative for Very Dilute Input: For VOC input-concentrations of less than 100 ppm (as methane) at the inlet of the ECS, the control efficiency is satisfied if
the VOC output is less than 20 mg VOC/m³ (as methane) adjusted to standard conditions.

305.2 Operation and Maintenance (O&M) Plan Required for ECS:

a. An owner or operator shall provide and maintain (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices used pursuant to this rule or to a Maricopa County Air Pollution Permit.

b. The owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device used pursuant to this rule.

c. The owner or operator shall comply with all identified actions and schedules provided in each O&M Plan.

305.3 Providing and Maintaining ECS Monitoring Devices: An owner or operator incinerating, adsorbing, or otherwise processing VOC emissions pursuant to this rule shall provide, properly install and maintain in calibration, in good working order devices described in the facility’s O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly and is properly maintained. Records shall be kept pursuant to Section 502 of this rule which demonstrate that the ECS meets the overall control standard required by Section 305.1 of this rule and is operated in accordance with the equipment manufacturer’s specifications.

305.4 O&M Plan Responsibility: An owner or operator of a facility that is required to have an O&M Plan pursuant to Section 305.2 of this rule must fully comply with all O&M Plans that the owner or operator has submitted for approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

305.5 Operation and Maintenance (O&M) Plan Contents for an ECS: An O&M Plan for any ECS including any ECS monitoring devices shall include all of the following information:

a. ECS equipment manufacturer;

b. ECS equipment model;

c. ECS equipment identification number or identifier that owner or operator subject to this rule assigns to such ECS equipment when manufacturer’s equipment identification number is unknown; and

d. Information required by Sections 502 and 503 of this rule.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE VOC LIMITS:

401.1 Emission Control System (ECS): An owner or operator installing an ECS shall:

a. Implement all recordkeeping provisions, including Section 502 of this rule.

b. Announce the intention to use an ECS to the Control Officer in writing if the ECS is used as an alternative to meeting the VOC limits of Section 301.1 of this rule.
401.2 **VOC Limits and Rule Requirements:** Upon adoption of this rule, the owner or operator shall discontinue purchase of materials that are non-compliant with Section 301.1 of this rule. The owner or operator has up to May 2, 2017 to complete use of existing non-compliant materials already purchased. A schedule for phasing out non-compliant materials shall be prepared and made available to an inspector upon request. This schedule shall specify that only compliant materials will be used after May 2, 2017.

402 **COMPLIANCE SCHEDULE O&M PLAN:** O&M Plans for ECS equipment subject to this rule shall be revised/updated by February 2017. The Control Officer shall notify the applicant in writing of approval or denial.

SECTION 500 – MONITORING AND RECORDS

501 **RECORDKEEPING AND REPORTING:** An owner or operator shall comply with the following recordkeeping requirements:

501.1 Records shall be retained for five years and shall be made available to the Control Officer without delay upon verbal or written request.

501.2 **Current Lists:** Maintain a current list of coatings or any other VOC-containing materials regulated by this rule. The list:

a. Shall express VOC content in one of the following forms:
   (1) Pounds VOC per gallon;
   (2) Grams VOC per liter; or
   (3) The percent VOC by weight along with the specific gravity or density.

b. Shall have the written value of the VOC coating, in one of the following forms. The documentation must provide accurate VOC content values or be based on enforceable test methods as approved by the Administrator to determine the VOC content.
   (1) A manufacturer’s technical data sheet;
   (2) A manufacturer’s safety data sheet (SDS or MSDS); or
   (3) Actual test results.

c. Shall maintain usage or purchase records as follows:

(1) **Monthly:** Records of the amount of VOC-containing materials purchased or used shall be totaled by the end of the month for the previous month. This includes, but is not limited to, all coating materials, all materials added during preparation of coatings, all materials used to clean coating application equipment, and all materials used to clean coating application areas.

(2) **Grouping by VOC Content:** For purposes of recording usage, an owner or operator may give VOC coatings, cleaners, and solvents of similar VOC content (VOC Regulatory) a single group-name, distinct from any product names in the group. The total usage of all the products in that group is then recorded under just one name. In such a case, the owner or operator must also keep a separate list that identifies the product names of the particular solvents included under the group name. To the group name shall be
assigned the highest VOC content (VOC Regulatory) among the members of that group, rounded to the nearest tenth of a pound of VOC per gallon of material or to the nearest gram VOC per liter of material.

d. Shall make the following listings for all coatings that have VOC limits listed in Tables 336-1 through 336-7 of this rule:

(1) **VOC Before Reducing:** The VOC content of each coating as received, minus exempt compounds. List the manufacturer’s final VOC content as mixed in the proportions specified by the manufacturer.

(2) **List Maximum VOC Content of Coating as Applied:** For each coating that is thinned/reduced or additive is introduced, record in a permanent log the VOC content, after mixing the maximum amount of thinner/reducer and other additives, as determined by the formula in the definition of VOC Regulatory of this rule. This log will include the following:

(a) The maximum number of fluid ounces thinner/reducer added to a gallon of unreduced coating (or maximum g/liter) and the maximum fluid ounces of every other additive mixed into a gallon of the coating; or

(b) The VOC content of the coating after adding the maximum amount of thinner/reducer and other additives as determined by the formula in the definition of VOC Regulatory in this rule.

e. Shall maintain usage or purchase records for aerosol can spray coating, including VOC content.

### 502 ECS RECORDING REQUIREMENTS:

An owner or operator shall maintain all of the following records in accordance with an approved O&M Plan for any ECS:

**502.1** On each day an ECS is used at a facility pursuant to this rule, the owner or operator shall make a permanent record of the key system operating parameters as required by the O&M Plan including, but not limited to, the following:

a. Flow rates;
b. Pressure drops;
c. Temperature; or
d. Other operating conditions necessary to determine if the approved ECS is functioning properly.

**502.2** An explanation shall be recorded for periods of time an approved ECS is not operating.

**502.3** For each day or period the O & M Plan requires maintenance, the owner or operator shall make a permanent record of the maintenance actions taken within 24 hours of the maintenance completion.

**502.4** Corrective action taken, if any.

**502.5** An explanation shall be entered for scheduled maintenance that is not performed during the period designated for it in the O&M Plan.

### 503 COMPLIANCE DETERMINATION AND TEST METHODS:
503.1 **Compliance Determination:** The following means shall be used to determine compliance with this rule.

a. Measurement of VOC content of materials subject to Section 301 or Section 302 of this rule shall be conducted and reported using one of the following means:

   (1) VOC content of coatings, solvents, and other substances having less than 5% solids will be determined by the test method in Sections 503.2(f) of this rule (BAAQMD Method 31 [April 15, 1992]) or 503.2(g) (SCAQMD Method 313-91 [April 1997]) of this rule.

   (2) The VOC content of coatings or other materials having 5% or more solids will be determined by the test method in Sections 503.2(c) (EPA Method 24), 503.2(f) (BAAQMD Method 31 [April 15, 1992]) or 503.2(g) (SCAQMD Method 313-91 [April 1997]) of this rule.

   (a) Plastisols, powder coatings, and radiation-cured coatings shall be cured according to the procedures actually used in the coating process being tested before final VOC-emission determinations are made.

   (b) In the case of multi-component, polymerizing coatings tested according to Section 503.1(a) of this rule, Method 24 shall be modified to eliminate the post-mixing dilution-step (that employs toluene or other solvent). Instead, the mixture shall be spread by appropriate technique to form a thin layer, occupying the entire bottom of the foil pan. Techniques included in the method referenced in Section 503.1(b) of this rule can be used as a guide for such spreading.

b. The VOC content of gaseous emissions entering and exiting an ECS shall be determined by either EPA Method 18 referred to in Section 503.2(b) of this rule, or EPA Method 25 and its submethod, referred to in Section 503.2(d) of this rule.

c. Capture efficiency of an ECS shall be determined either by the methods in Section 503.2(c) of this rule (EPA Method 204 and its submethods), or by using mass balance calculation methods in concert with the methods in Section 503.2(a) of this rule (EPA Methods 2, 2a, 2c, and 2d).

d. Measurement of air pressure at the center of the spray gun tip of an air-atomizing spray gun shall be performed using an attachable device in proper working order supplied by the gun's manufacturer for performing such a measurement.

e. Temperature measurements shall be done with an instrument with an accuracy and precision of less than one-half degree Fahrenheit (0.25°C) for temperatures up to 480°F (250°C).

503.2 **Compliance Determination-Test Methods Incorporated by Reference:** The following test methods are approved for use for the purpose of determining compliance with this rule. The test methods are incorporated by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. Alternative test methods as approved by the Administrator or other EPA-approved test methods may be used upon prior written approval from the Control Officer. When more than one test method is permitted for the same determination, an exceedance under any
method will constitute a violation. Copies of test methods referenced in this section are available at the Maricopa County Air Quality Department.


e. EPA Test Methods 204 (“Criteria for and Verification of a Permanent or Temporary Total Enclosure”), 204a, 204b, 204c, 204d, 204e, and 204f (Appendix M, 40 CFR 51).


g. California’s South Coast Air Quality Management District (SCAQMD) Method 313-91 (April 1997).

503.3 Test Methods for ECS: For coatings controlled pursuant to Section 305 of this rule:

a. Measurements of VOC emissions from an ECS shall be conducted in accordance with EPA Methods 18 or its submethods, or by Method 25 or its submethods (40 CFR 60, Appendix A).

b. Capture efficiency of an ECS shall be determined by mass balance in combination with ventilation/draft rate determinations done in accordance with Section 503.3(c) of this rule or with US EPA Test Methods 204, 204a, 204b, 204c, 204d, 204e, and 204f (Appendix M, 40 CFR 51).

c. Ventilation/draft rates shall be determined by EPA Methods 2, 2a, 2c, and 2d (40 CFR 60, Appendix A).