



Report to the Board of Supervisors

COVER

Prepared by the Maricopa County Air Quality Department

Board of Health Meeting Date:	September 10, 2014
Board Hearing Date:	April 8, 2015
Case #/Title:	AQ-2013-002-Rule 345
Agenda Item:	C-85-15-017-M-00
Supervisor Districts:	All Districts

The Maricopa County Air Quality Department (department) is removing AQ-2013-002-Rule 345 from the Board of Supervisors' April 8, 2015 agenda and is no longer requesting that the Board of Supervisors conduct a public hearing to consider rule revisions at this time.

In the 30-days preceding the public hearing, the department received comments from Stakeholders regarding an equation in Rule 345 for calculating volatile organic compound (VOC) coating limits. The department will consider the Stakeholders' proposal and will re-propose revisions to Rule 345.



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Agenda Item: C-85-15-017-M-00

Supervisor Districts: All Districts

Applicant: Staff

Request: Approve the proposed revisions to Rule 345 (Vehicle and Mobile Equipment Coating), which will delete obsolete rule requirements, update current industry practices for spray-gun use, and clarify volatile organic compound (VOC) coating limits and work practices.

Support/Opposition: The Maricopa County Air Quality Department (department) has reviewed all of the comments received throughout the rulemaking process and has addressed issues from both the national and local regulated communities. The department held three public workshops: November 21, 2013, February 27, 2014 and July 10, 2014, and published a Notice of Proposed Rulemaking (NPRM) in the Arizona Administrative Register. The rule revisions proposed throughout this rulemaking process have increasingly improved rule clarification and simplified requirements without changing the VOC coating limits.

During the informal rulemaking process, the department conducted a kick-off Stakeholder Workshop on November 21, 2013. Vehicle coating manufacturer and supplier representatives expressed concern about several sections of Rule 345. In response to their concerns, the department conducted a "follow-up" meeting on January 16, 2014. The American Coatings Association (ACA) also submitted written comments on these issues in February 2014. The comments received resulted in correcting rule deficiencies, adding, amending, and redefining more than thirty definitions, and combining or deleting sections of the rule.

The formal rulemaking process (a 30-day comment period) began on October 3, 2014, when the NPRM was published in the Arizona Administrative Register. The department received comments from three Stakeholders: DeVilbiss, a manufacturer of vehicle coatings and equipment, Sinthium, a local vehicle coating facility, and the American Coatings Association (ACA). Their comments and the department's responses are described in detail in Item 13 of the Draft Notice of Final Rulemaking (attached to this report). However, a summary is as follows: The three Stakeholders' comments centered around spray-gun requirements and limits (Rule 345, Section 303.1), spray-gun cleaning requirements (Rule 345, Section 303.2), recordkeeping and reporting

requirements for spray-gun transfer efficiency (Rule 345, Section 501.2), compliance determination for spray-gun tip pressure measurement (Rule 345, Section 502.4), and a formula for determining the VOC limits of coatings (Rule 345, Section 503.1).

Stakeholders asked for clarification regarding whether or not facilities must actually perform spray-gun certification and the type of documentation needed for such certification. The department is proposing to clarify in Rule 345 the compliance certification and documentation required when using a certified spray-gun or an alternative application method. If a facility uses a certified spray-gun, then the spray-gun will have to meet the definition of “high-volume low pressure (HVLP)” and will have to meet the spray-gun tip pressure measurement test. The facility may be required to perform the spray-gun tip pressure measurement test when spray-gun operations are outside normal operating parameters. The HVLP spray-gun manufacturer should provide a device and instructions for measuring spray-gun tip pressure. If a facility uses an alternative application method, which includes the use of new spray application technologies, then the facility will not have to perform spray equipment transfer efficiency testing. The spray-gun manufacturer will provide third-party documentation of the spray-gun transfer efficiency.

Stakeholders asked that Rule 345 allow for cleaning spray-guns without having to use a spray-gun cleaning machine. Rule 345 has always allowed spray-gun cleaning without the use of a spray-gun cleaning machine, if spray-guns are cleaned using water or a cleaning mixture that is more than 50% by weight or volume. The department is proposing to clarify Rule 345 regarding which solvent cleaners a facility can use to clean spray-guns without having to use a spray-gun cleaning machine. For example, under the proposed revisions to Rule 345, a facility would not be required to use a spray-gun cleaning machine if it were using solvent cleaners that were less than 10 percent VOC, contained less than 8.0 percent by weight of VOC (including water and non-precursor organic compounds), and had a VOC-vapor pressure below 35 mm Hg at 20°C (68°F). If a facility opts to use such solvent cleaners, then such facility will not be required to use a spray-gun cleaning machine.

Stakeholders asked that the department retain the “VOC-multi” equation, because such equation matches that found in the U.S. Environmental Protection Agency (EPA) National Rule for vehicle coating facilities. The “VOC-multi” equation allows for calculating VOC when applying more than one coat of paint to a vehicle. The department is proposing to retain the “VOC-multi” equation; however, the department is proposing to remove the automatic doubling of the clearcoat component in the calculation. If a facility applies only one coat of paint to a vehicle, then the facility would only have to use this equation once. If a facility applies more than one coat of paint to a vehicle, then the facility would have to use this equation for each coat applied.

**Staff
Recommendation:**

Approve

**Board of Health
Recommendation:**

Approve per staff recommended language. The Board of Health, during its public meeting conducted on September 10, 2014, granted

approval for this rulemaking to proceed as an Expedited Process Rulemaking.

**Additional
Comments:**

The department complied with all statutory and county policies throughout this rulemaking process. The department followed the Enhanced Regulatory Outreach Program (EROP) Policy for this rulemaking. In doing so, the department issued a case number “AQ-2013-002-Rule 345” and in January 2013, briefed the Maricopa County Manager and Board of Supervisors on the proposed rulemaking. On November 21, 2013, February 27, 2014, and July 10, 2014, the department held Stakeholder workshops. On September 10, 2014, the department met with the Maricopa County Board of Health at their public meeting, during which the Board of Health granted approval for this rulemaking to proceed as an Expedited Process Rulemaking. On October 3, 2014, a Notice of Proposed Rulemaking was published in the Arizona Administrative Register (20 A.A.R. 2687, October 3, 2014) opening the 30-day comment period. The comment period was closed on November 3, 2014.

Presented By:

Philip A. McNeely, R.G., Director

Prepared By:

Kathleen Sommer, Planner

Attachments:

[Summary of the proposed regulatory change](#) (See Item 6 of the Draft Notice of Final Rulemaking)

[Analysis of input received during the process and how that input was responded to](#) (See Item 13 of the Draft Notice of Final Rulemaking)

[Language of proposed regulatory change or amendment](#) (See Item 17 of the Draft Notice of Final Rulemaking)

[Preamble required by Arizona Revised Statutes](#) (A.R.S.) § 49-471.05, (See Draft Notice of Final Rulemaking)

[Minutes from Board of Health meeting](#)

[Copies of all written and electronic stakeholder input](#)

DRAFT NOTICE OF FINAL RULEMAKING

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

PREAMBLE

AQ-2013-002-RULE 345

- | <u>1.</u> | <u>Rule affected</u> | <u>Rulemaking action</u> |
|-----------|--|--------------------------|
| | Rule 345: Vehicle and Mobile Equipment Coating | Amend |
-
2. **Statutory authority for the rulemaking:**
Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480
Implementing statute: A.R.S. § 49-112
3. **The effective date of the rule:**
Tentative date of adoption: April 8, 2015
4. **List of all previous notices appearing in the Register addressing the rulemaking:**
Notice of Proposed Rulemaking: 20 A.A.R. 2687, October 3, 2014
5. **Name and address of department personnel with whom persons may communicate regarding the rulemaking:**
Name: Kathleen Sommer
Maricopa County Air Quality Department
Planning and Analysis Division
Address: 1001 N Central Avenue, Suite 125
Phoenix, Arizona 85004
Telephone: (602) 506-6010
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E-Mail: aqplanning@mail.maricopa.gov

6. **Explanation of the rule, including the department's reasons for initiating the rulemaking:** [Return to List of Attachments](#)

The Maricopa County Air Quality Department (department) is proposing revisions to Rule 345 (Vehicle and Mobile Equipment Coating) to ensure that the standards and work practices for commercial vehicle coating operations control volatile organic compound (VOC) emissions from paints or coatings used by vehicle coatings facilities. VOC emissions react in the presence of sunlight to form ground-level ozone, a major component of “smog” and are hazardous to human health and the environment.

The objective of these proposed revisions is to transform Rule 345 into a clear, concise, and understandable rule for the owners and operators of vehicle coating facilities. This can be accomplished with the proposed

restructuring of Rule 345 so that there is a better flow of information. In this restructure, Rule 345 revisions propose to identify VOC coating limits based on vehicle weight which eliminates the need to use the North American Industrial Classification System (NAICS) to describe the vehicle parts, facilities and the corresponding coating limits. Repetitive and obsolete language is also proposed for deletion. For example, obsolete reporting requirements such as those for small facilities and those applicable to suppliers and manufacturers of vehicle paints and coatings are proposed for deletion. Proposed revisions include combining standards and clarifying work practices. For example, Rule 345 revisions propose to allow for the use of different models of spray-guns. These proposed revisions to Rule 345 will clarify and simplify rule requirements, encourage compliance with the rule, and lead to the control of air emissions.

Description of Proposed Amendments:

- **Section 102:** To delete the use of the facility classification according to the North American Industrial Classification System (NAICS) to determine VOC limits for coating types.
- **Section 103.3:** To prohibit coating with non-refillable aerosol cans that have a greater capacity than 22 fluid ounces (0.66 liter).
- **Section 200:** To delete twelve (12) definitions that only contributed confusion to the rule purpose of controlling VOC emissions, to add twenty-four (24) new definitions and update eight (8) of the old definitions.
- **Sections 216 – 217:** To add categories of vehicles based on vehicle weight to simplify identification of VOC coating.
- **Section 238.8:** To add truck bed liner coatings as a category of “specialty coatings”.
- **Section 301:** To clarify definitions of coating types listed in Tables 345-1, 345-2, and 345-3 that compliment both national and local Stakeholder purposes.
- **Sections 302:** To clarify operating requirements for surface preparations and solvent cleaners.
- **Section 303.1:** To add specifications to allow for the use of different models of spray guns.
- **Section 303.2:** To clarify when spray-gun cleaning can be accomplished without using a spray-gun cleaning machine.
- **Section 402:** To delete the obsolete reporting requirements for small facilities.
- **Section 403:** To delete recordingkeeping requirements for jobbers/suppliers.
- **Section 503.1:** To update the calculation of VOC content of coating materials subject to this rule.
- **Section 505.3:** To add a test method that facilitates demonstration of transfer efficiency for alternative application methods.

7. Demonstration of compliance with A.R.S. §49-112:

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the applicable requirements of A.R.S. §49-112.

§ 49-112 County regulation; standards

§ 49-112(A)

When authorized by law, a county may adopt a rule, ordinance or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all of the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition.
2. There is credible evidence that the rule, ordinance or other regulation is either;
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the County rule, ordinance or other regulation is equivalent to federal statutes or regulation.
3. Any fee or tax adopted under the rule, ordinance or other regulation will not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

§ 49-112(B)

When authorized by law, a county may adopt rules, ordinances or other regulations in lieu of a state program that are as stringent as a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if the county demonstrates that the cost of obtaining permits or other approvals from the county will approximately equal or be less than the fee or cost of obtaining similar permits or approvals under this title or any rule adopted pursuant to this title. If the state has not adopted a fee or tax for similar permits or approvals, the county may adopt a fee when authorized by law in the rule, ordinance or other regulation that does not exceed the reasonable costs of the county to issue and administer that permit or plan approval program.

Maricopa County complies with A.R.S. § 49-112 in that the proposed amendment to Rule 345 is not more stringent than or in addition to a provision of Title 49 or rule adopted by the director or any board or commission authorized to adopt rules pursuant to Title 49 and the proposed amendment to Rule 345 is not in lieu of a state program.

8. Reference to any study relevant to the rule that the department reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

EPA study authorized by the Clean Air Act Section 183(e) and cited in 60 FR 15264 (March 23, 1995); 64 FR 13422 (Mar. 18, 1999); 70 FR 69759 (Nov. 17, 2005); 71 FR 28320 (May 16, 2006).

This is a series of studies conducted to assess the potential source of emissions of volatile organic compounds (VOC) from the use of consumer and commercial products, e.g., automotive coatings that contribute to the violation of the NAAQS for ozone.

9. Showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:

Not applicable

10. Summary of the economic, small business, and consumer impact:

The following discussion addresses each of the elements required for an economic, small business and consumer impact statement under A.R.S. § 41-1055.

An identification of the rulemaking.

This rulemaking is proposing to revise Rule 345 (Vehicle and Mobile Equipment Coating).

An identification of the persons who will be directly affected by, bear the costs of or directly benefit from the rulemaking.

The persons who will be directly affected by and bear the costs of this rulemaking will be commercial vehicle and mobile equipment coating operations in Maricopa County. The department has issued permits to more than 300 such sources which are regulated by Rule 345 for emissions of VOC that contribute to ozone.

A cost benefit analysis of the following:

(a) The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the rulemaking.

Because this rulemaking does not impose any new compliance burdens on regulated entities or introduce additional regulatory requirements, the department deemed that none of the revisions have potentially significant economic impacts. It is expected that the department will benefit from the increased clarity of the rule with decreased time to inspect a facility or prepare a permit. In addition, the rulemaking will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

The assumptions of savings with the rule revisions will be reviewed after rule implementation to confirm their effectiveness. However, the benefits of the rule revisions are anticipated to be a result of the following changes:

- Restructuring the rule to clarify VOC coating limits required for use, providing greater certainty and saving time for both the regulated community and regulators;
- Clarifying an exemption for coating with a non-refillable aerosol can;
- Defining spray-gun requirements;
- Eliminating obsolete reporting requirement for small facilities;
- Eliminating regulation of suppliers or manufacturers;
- Updating formula calculations of VOC content of coatings.

(b) The probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the rulemaking

The rule revisions will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

(c) The probable costs and benefits to businesses directly affected by the rulemaking, including any anticipated effect on the revenues or payroll expenditures of employers who are subject to the rulemaking.

The department anticipates that increased clarity provided by the Rule 345 revisions will provide a benefit to the regulated community; it will take less time for sources subject to the rule to understand and comply with the rule, which leads to increased compliance, which leads to decreased costs of compliance to the regulated community. The department does not anticipate these rule revisions to have a significant impact on a person's income, revenue, or employment in this state related to this activity. The rule revisions will not impose increased monetary or regulatory costs on individuals so regulated.

(d) A general description of the probable impact on private and public employment in businesses, agencies and political subdivisions of this state directly affected by the rulemaking.

The rule revisions will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

(e) A statement of the probable impact of the rulemaking on small businesses.

The rule revisions will not impose increased monetary or regulatory costs on any business, persons, or individuals so regulated.

(f) An identification of the small businesses subject to the rulemaking.

Small businesses subject to this rulemaking are commercial vehicle and mobile equipment coating operations in Maricopa County.

(g) The administrative and other costs required for compliance with the rulemaking.

This rulemaking corrects and clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. The department considered the implications of the proposed amendments to the regulated entities and the implementing agency and deemed that none of the rule revisions have potentially significant economic impacts.

(h) A description of the methods that the agency may use to reduce the impact on small businesses.

(i) Establishing less costly compliance requirements in the rulemaking for small businesses.

By correcting and clarifying existing rule provisions and definitions, this rulemaking lessens or eases the regulatory burden for small businesses.

(ii) Establishing less costly schedules or less stringent deadlines for compliance in the rulemaking.

This rulemaking corrects or clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. Existing schedules and deadlines for compliance with Rule 345 remain unchanged.

(iii) Exempting small businesses from any or all requirements of the rulemaking.

This rulemaking corrects or clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. In addition, this rulemaking clarifies an exemption for coating with a non-refillable aerosol can.

(i) The probable cost and benefit to private persons and consumers who are directly affected by the rulemaking.

This rulemaking does not impose any new compliance burdens on regulated entities or introduce additional regulatory requirements and will not impose increased monetary or regulatory costs on any business, persons, or individuals so regulated.

(j) A statement of the probable effect on state revenues.

The rule revisions will not impose increased monetary or regulatory costs on other state agencies, political subdivisions of this state, persons, or individuals so regulated.

(k) A description of any less intrusive or less costly alternative methods of achieving the purpose of the rulemaking.

This rulemaking corrects or clarifies existing rule provisions and definitions to reduce confusion and improve understanding and readability. The rule revisions provide flexibility for the use of different models of spray-guns for the application of paints or coatings used by commercial vehicle coating operations.

11. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact:

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12. Description of the changes between the proposed rule, including supplemental notices and final rule:

Since the Notice of Proposed Rulemaking was published in the Arizona Administrative Register on October 3, 2014, (20 A.A.R. 2687), the department is proposing the following additional amendments:

- Section 103.2: To clarify the exemption for coating individual parts.

- Sections 216 and 217: To clarify that equipment can only be categorized in one vehicle group, either “Group I motor vehicles and mobile equipment” or “Group II motor vehicles”.
- Section 229: To remove the phrase “outer surfaces of trucks and other utility vehicles” from the definition of “paint stripping”.
- Section 235: To clarify the definition of “refinish, refinishing”.
- Section 301: In Tables 345-1 and 345-2, to correct the coating limits for surface preparations or solvent cleaners to state 168 grams/liter or the equivalent 1.4 pounds /gallon.
- Section 301.2: To clarify the mixing requirements; must meet the VOC limits of this rule.
- Sections 302.1(c) and (d): To clarify the dip cleaning requirements and the paint stripping requirements.
- Section 302.4(b): To clarify the requirement that labels are posted on containers.
- Section 303.1(a)(1): To clarify that an HVLP spray-gun is defined to atomize 100 percent by air pressure and is operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure and that the method for compliance determination of the spray-gun tip pressure is in Section 503.3.
- Section 303.1(a)(4): To clarify the requirements for using an alternative spray application method.
- Section 303.1(b): To clarify that any one of the conditions of Section 303.1(b) must be met in order to use a device or method other than the devices or methods described in Section 303.1(a).
- Section 303.2: To change the term “paint gun” to “spray-gun” and to change the format to allow easier identification of the conditions under which a spray-gun can be cleaned without using a spray-gun cleaning machine.
- Section 501.1(c) and (d): To clarify that an owner and/or operator must keep a current list of VOC actual for coatings, VOC regulatory for coatings, and VOC content for solvent cleaners.
- Section 501.2: To clarify that an owner and/or operator must keep alternative application method transfer efficiency documentation.
- Section 501.3: To clarify that an owner and/or operator must keep the results of the spray-gun tip pressure measurement test.
- Sections 501.5(a) and 502.1: To add “Safety Data Sheets (SDS)”. By June 1, 2015, product manufacturers must supply new Safety Data Sheets (SDS), which will replace Material Safety Data Sheets (MSDS).
- Sections 501.6 and 501.7: To move text regarding how records must be kept to the introductory statement in Section 501.
- Section 502.4: To clarify the compliance determination for spray-gun tip pressure measurement.
- Section 503.1: To retain the “VOC-multi” equation and to remove the automatic doubling of the clearcoat component in the calculation. This change requires using number of total coats in the dominator instead of the previous “midcoat plus 3”.

- Section 505.1: To correct the statement that the department will provide “copies” of the ASTM test methods referenced in this rule. ASTM test methods are copyrighted and are not permitted for reproduction unless purchased or approved by ASTM. The reference is changed to state the ASTM documents will be “available for review” at the Maricopa County Air Quality Department offices.
- Section 505.2(f): To delete proposed Section 505.2(f) because the test method listed was redundant with the test method listed in Section 505.2(d).

13. Summary of the comments made regarding the rule and the department response to them: [Return to List of Attachments](#)

The department conducted three public workshops during the informal rulemaking process - November 2013- July 2014. The department received formal comments during the 30-day comment period – October –November 2014 from DeVilbiss, a manufacturer of vehicle coatings and equipment, Sinthium, a local vehicle coating facility and the American Coatings Association (ACA). The formal comments and the department’s responses are written below.

Comment #1 - Section 303.1(a): DeVilbiss requested clarification of the compliance certification and documentation required for HVLP spray-guns or alternative application methods that are used in coating operations.

Response #1: The department is proposing to clarify the compliance certification and documentation required when using a certified spray-gun (high-volume low pressure (HVLP) spray-gun) or an alternative application method. If a facility uses an HVLP spray-gun, then the HVLP spray-gun will have to meet the definition of “HVLP” and will have to meet the spray-gun tip pressure measurement test. If a facility uses an alternative application method, then such method must be an HVLP equivalent or must achieve a transfer efficiency of greater than or equal to 65%.

Comment #2 - Sections 303.1(a) (1) and (4): The department was asked if a vehicle coating facility is required to perform spray-gun certification.

Response #2: There are two types of spray-gun compliance tests: spray-gun tip pressure measurement and spray equipment transfer efficiency. The test needed depends on the type of spray application used. If a vehicle coating facility is using a high-volume low pressure (HVLP) spray-gun, then the facility may be required to perform the spray-gun tip pressure measurement test when spray-gun operations are outside normal operating parameters. The HVLP spray-gun manufacturer should provide a device and instructions for measuring spray-gun tip pressure. Section 502.4 of Rule 345 describes the spray-gun tip pressure measurement compliance test requirements. If a vehicle coating facility is using an alternative application method, then the facility will not have to perform spray equipment transfer efficiency testing. The spray-gun manufacturer will provide third party documentation of the spray-gun transfer efficiency. Section 505.3(d) of Rule 345 describes the spray equipment transfer efficiency compliance test requirements.

Comment #3 - Section 501.2: Devilbiss provides a certificate showing all the air quality districts that have written approvals for each of their non-HVLP spray-guns (Refer to link below). This information is also

available on their web site (<http://www.autorefinishdevilbiss.com/support/compliance-information/tekna-pro-prolite-approval-letters.aspx>) with links to the individual approval letters. Is this sufficient?

Response #3: If the manufacturer's certified spray-gun transfer efficiency documentation specifically states that the alternative application method, e.g., non-HVLP spray-gun, achieves either an HVLP equivalency or a transfer efficiency of greater than or equal to 65%, then such documentation meets the requirements of Rule 345.

Comment #4 - Section 303.1: The American Coatings Association (ACA) requested the rule approve the use of new spray application technologies as they become available without going through an extensive approval process.

Response #4: In Section 303.1(a) (4) (An Alternative Application Method) of Rule 345, the department has provided provisions for using alternative application methods, which includes the use of new spray application technologies. The use of such alternative application methods does not have to go through an extensive approval process but must provide documentation that the application method complies with the requirements in Section 303.1(a)(4).

Comment #5 -Section 502.4: What is the compliance determination test for the spray-gun tip measurement? Rule 345 currently includes a requirement for the spray to be configured to a fan diameter of eight to ten inches on a flat surface. Is this accurate?

Response #5: In Rule 345, Section 502.4, the department is proposing to update the spray-gun tip pressure measurement compliance test requirements with current spray-gun tip pressure measurement requirements. Such requirements measure air pressure dynamically at the center of the air cap and the air horns. This proposed revision eliminates the obsolete requirement that the spray must be configured to a fan diameter of eight to ten inches spray on a flat pattern perpendicular to the surface getting coated.

Comment #6 – Section 303.2: Sinthium has requested that Rule 345 be revised to allow spray-gun cleaning under conditions that do not require using a spray-gun cleaning machine. Sinthium cleans their spray-guns with solvents, without a spray-gun cleaning machine, when different types of coatings are used. Two different spray-guns using different types of paints are contaminated when both spray-guns are cleaned in one gun-cleaning machine. A manual cleaning process is also more efficient and requires less solvent.

Response #6: Rule 345 has always allowed spray-gun cleaning without the use of a spray-gun cleaning machine, if spray-guns are cleaned using water or a cleaning mixture that is more than 50 percent water by weight or volume. The department is proposing to clarify Rule 345 regarding which solvent cleaners a facility can use to clean spray-guns without having to use a spray-gun cleaning machine. If a facility opts to use such solvent cleaners, then such facility will not be required to use a spray-gun cleaning machine.

Comment #7 – Section 503.1: The American Coatings Association (ACA) requested the department retain the "VOC multi" calculation as it currently is listed in Section 503.1 of Rule 345. The ACA's concern is

that excluding the automatic doubling of the clearcoat component of the calculation would create confusion. The “VOC multi” calculation matches that found in the EPA National Rule for vehicle coating facilities and the introduction of this “averaging” or “summing” method of the VOCs in the multi-layer coating calculation does not provide a clear benefit.

Response #7: After considering all comments received concerning eliminating or changing the “VOC multi” calculation, the department continues to recommend changing, but not eliminating, this calculation. During a meeting held on January 16, 2014, manufacturers /suppliers and the department’s compliance staff expressed concern that this “VOC multi” calculation is obsolete. At this meeting, the regulated community explained that automatically using two clearcoats, as the “VOC multi” calculation represents, is an out-of-date industry protocol. The automatic doubling of the clearcoat component in the calculation is no longer the standard. The U.S. Environmental Protection Agency (EPA) reviewed the August 6, 2014 draft of Rule 345 and recommended eliminating the calculation entirely. Other EPA Region 9 jurisdictions (e.g., California Air Resources Board-Suggested Control Measure and South Coast Air Quality Management District Rule 1151) no longer include a multi-stage VOC calculation in their regulations. The department has determined that the “VOC multi” calculation will remain in the rule; however, the department is proposing to remove the doubling of the clearcoat component in the calculation.

14. Other matters prescribed by statute that are applicable to the specific department or to any specific rule or class of rules:

Not applicable

15. Incorporations by reference and their location in the rule:

EPA Reference Methods, ASTM International (ASTM) standards and other documents incorporated by reference in Rule 345:

Section 505.2

Method 2—Determination of stack gas velocity and volumetric flow rate (Type S pitot tube);

Method 2A—Direct measurement of gas volume through pipes and small ducts;

Method 2C—Determination of stack gas velocity and volumetric flow rate in small stacks or ducts (standard pitot tube);

Method 2D—Measurement of gas volume flow rates in small pipes and ducts;

Method 18 - Measurement of Gaseous Organic Compound Emissions by Gas Chromatography and its submethods.

Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings.

Method 25 - Determination of Total Gaseous Nonmethane Organic Emissions as Carbon and its submethods.

Methods 204, 204a, 204b, 204c, 204d, 204e and 204f - Criteria For and Verification of a Permanent or Temporary Total Enclosure.

EPA criteria for measuring spray-applied coating transfer efficiency.

Section 505.3

California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992; Amended May 18, 2005), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings".

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

ASTM D1613-06(2012): Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products.

California's South Coast Air Quality Management District (SCAQMD) "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray- Guns"(September 26, 2002).

California's South Coast Air Quality Management District (SCAQMD) "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (May 24, 1989)

16. Was the rule previously an emergency rule?

No

17. Full text of the rule follows:

REGULATION III – CONTROL OF AIR CONTAMINANTS

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RULE 345

MOTOR VEHICLE AND MOBILE EQUIPMENT COATING

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Adopted 02/15/95
 Revised 11/20/96
 Revised 04/21/99
 Revised 09/25/13

Adopted 02/15/95; Revised 11/20/96; Revised 04/21/99; Revised 09/25/13; Revised XX/XX/XX [Return to the List of Attachments](#)

**MARICOPA COUNTY
 AIR POLLUTION CONTROL REGULATIONS**

REGULATION III CONTROL OF AIR CONTAMINANTS

RULE 345

MOTOR VEHICLE AND MOBILE EQUIPMENT COATING

SECTION 100 – GENERAL

101 PURPOSE: To limit emissions of volatile organic compounds (VOCs) from ~~the surface preparation and coating of highway vehicles and mobile equipment.~~ motor vehicle and mobile equipment coating and surface preparation operations, which contribute to the formation of ground level ozone.

102 APPLICABILITY:

~~102.1~~ The provisions of this rule apply to ~~the coating of any vehicle or mobile equipment able to travel or be drawn upon a highway, except for Original Equipment coatings at light-duty vehicle manufacturing plants. A summary is provided by the following directory: any owner and/or operator, who leases, operates and/or controls a motor vehicle coating operation that applies coatings to motor vehicles, mobile equipment or any associated parts or components.~~

~~DIRECTORY OF THE REGULATIONS THAT APPLY TO NEW FINISHES & TO REFINISHES~~

Type of Vehicle II	Applicable Regulation for Original Equipment Coating and Coating on Never Coated Surface II	Applicable Regulation for Refinishing II
Car, pickup, minivan, & light duty utility vehicle, or their chassis, produced on large assembly lines; i.e., included by code #33611 in NAICS, as incorporated by reference in subsection 505.3.	New Source Performance Standard for cars & light duty vehicles made on assembly lines, subpart MM, 40 CFR 60, as incorporated by reference in Rule 360.	Table 1 (of this rule) (vehicle bodies, cabs, and chassis only)
Car, pickup, minivan, or light duty utility vehicle NOT produced on large assembly lines; all motorcycles and golf carts.	Table 3 (of this rule)	Table 1 (vehicle bodies, cabs, and chassis only)
All vehicles that qualify as “heavy trucks”, as defined by §215 of this rule, (buses, large trucks, tractor/trailers, etc.)	Table 3	Table 2 (of this rule) (vehicle bodies, cabs, chassis & their trailers)
All heavy duty vehicles that do not qualify as “heavy trucks”, and all mobile equipment	Table 3	Table 3 except for pretreatment wash
*Small never coated surfaces on a coated vehicle being refinished are subject to Table 2 or §302.3.		

~~102.2~~**103** Non-Applicability:EXEMPTIONS:~~a.~~—This rule Rule 345 does not apply to:

103.1 Use of Low VOC Materials: An owner and/or operator who exclusively uses:

- ~~a.~~ materialsMaterials that contain 2.0% or less VOC by either weight or volume; or
- ~~b.~~ haveMaterials with a VOC content that is less than 0.17 lbs VOC per gallon (20 g/liter) material VOC content, as determined by the formula in ~~subsection 503.3~~ Section 503 of this rule.

~~b.~~ **103.2 Coating Individual Parts:** An owner and/or operator who exclusively coats ~~This rule does not apply to the coating of separate motor vehicle parts or mobile equipment parts that have never been installed since manufacture or remanufacture are subject to Rule 336 (Surface Coating Operations) of these rules ;, unless they are current This does not include replacements for a defective/missing body part parts and are being coated installed in the course of refinishing the vehicle body; they will become part of.~~

103.3 Coating with a Non-Refillable Aerosol Can: An owner and/or operator who coats with a non-refillable aerosol can is not subject to Rule 345.

~~102.3~~—NSPS & NESHAP: 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 and Regulations.

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

202 AIRLESS AND AIR-ASSISTED AIRLESS SPRAY: Any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle. Air assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

~~201~~ **203 AUTOMATIC SPRAY-GUN-CLEANING MACHINE (GUN CLEANER):** A machine which, after being loaded, cleans paint spray-guns without the assistance of a person.

~~202~~—**AUTOMOBILE/LIGHT DUTY VEHICLE:** A vehicle manufactured by a facility that is designated by code 33611 of the 1997 North American Industrial Classification System (NAICS), as incorporated by reference in subsection 505.3. This comprises only vehicles manufactured by a large production line facility that makes the following complete vehicles or chassis [for such vehicles]: automobile, light duty van, light duty motor home, pick up truck, and/or utility vehicle.

204 BASECOAT: A pigmented topcoat which is the first topcoat applied as part of a multi-stage topcoat system.

205 BUS: A motor vehicle, which is designed primarily for the transportation of persons, that has a manufacturer's gross vehicle weight of more than 8600 pounds and a design capacity of over 12 persons.

- 206** **CLEAR COATING:** A coating that contains no pigments and is labeled and formulated for application over a color coating or another clear coating.
- ~~203~~ **207** **COATING AS APPLIED:** Refers to a coating at the time immediately prior to its application, including any final addition of solvent to the coating before such coating is applied.
- 208** **COATING COMPONENT:** Any portion of a coating, such as a reducer, thinner, hardener, or additive recommended (by the manufacturer or importer) to distributors or end-users for motor vehicle refinishing. The raw materials, such as polyurethane resin, used to produce the coating component which are mixed by the end user to prepare a coating for application are not considered coating components.
- ~~204~~ **CONVENTIONAL AIR ATOMIZED SPRAY (SYSTEM):** A spray which is atomized with air in a system designed to exceed 25 psig (1.7 bar) at the center of the spray gun tip and which is not used with an electrostatic transfer system.
- ~~205~~ **209** **DAY:** A period of 24 consecutive hours beginning at midnight.
- ~~206~~ **DEPARTMENT:** The Maricopa County Air Quality Department.
- ~~207~~ **210** **DETAILING GUNS AND TOUCH-UP GUNS:** Small air spray devices, including air brushes, that operate at no greater than 6 cfm (170 liters per minute) air flow and no greater than 50 psig (3.4 bar) air pressure and are used to coat small areas.
- ~~208~~ **211** **DILUENT:** For the purposes of this rule, any fluid in or added to a coating such as thinner, retarder, reducer, solvent, or drying accelerator which solubilizes, adjusts concentration, viscosity, flow, or drying rates and which evaporates as the coating film solidifies and cures.
- ~~209~~ **212** **ELECTROSTATIC APPLICATION:** A method of applying coating by electrically charging coating droplets or particles with an electrical device, causing their deposition onto a substrate by electrostatic attraction.
- ~~210~~ **213** **EMISSION CONTROL SYSTEM (ECS):** A system, approved in writing by the Control Officer, designed and operated in accordance with good engineering practice to reduce emissions of volatile organic compounds. Such system consists of an emissions collection subsystem and an emissions processing subsystem.
- ~~211~~ **214** **ENAMEL:** Any non-lacquer topcoat.
- ~~212~~ **215** **FLEXIBLE PLASTIC:** A surface or part made of solid (non-rubber) polymer designed to withstand significant deformation without damaging it for its intended use.
- 216** **GROUP I MOTOR VEHICLES AND MOBILE EQUIPMENT:** (Equipment can only be categorized in one vehicle group. Any equipment specifically listed as a Group I motor vehicle and mobile equipment is not a Group II motor vehicle.)
- 216.1** **Automobiles (transport and capacity less than 12 persons):**
- 216.2** **Small and medium-sized trucks and vans:**
- 216.3** **Motor homes:**
- 216.4** **Motorcycles; and**
- 216.5** **Mobile equipment.**

- 217** **GROUP II MOTOR VEHICLES:** (Equipment can only be categorized in one vehicle group. Any equipment specifically listed as a Group II motor vehicle is not a Group I motor vehicle and mobile equipment.)
- 217.1** Large trucks;
- 217.2** Buses;
- 217.3** Construction equipment, such as earthmovers, tractors, diggers, mobile cranes, bulldozers, and concrete mixers;
- 217.4** Farm machinery, such as forklifts, tractors, and plows; and
- 217.5** Miscellaneous equipment, such as street cleaners.
- ~~213~~ **218** **HARDENER:** A coating component specifically designed to promote a faster cure of an enamel finish.
- ~~214~~ **HEAVY TRUCK:** Any cab/tractor, truck, van, bus, or motorhome with a manufacturer's gross vehicle weight rating of 8600 lbs or more that is licensable for highway travel; this includes any trailer or semi-trailer that is equipped to be pulled by any such cab/tractor, truck, or van.
- ~~215~~ **HEAVY DUTY VEHICLE:** Any highway vehicle, except for an automobile/light duty vehicle as defined in Section 202. This includes, but is not limited to, all vehicular products manufactured under NAICS code 3362, such as trailers, buses, canopies, and the following: trucks, construction equipment, and recreational vehicles.
- ~~216~~ **HIGH VOLUME LOW PRESSURE (HVLP) APPLICATION:** A type of coating spray system in which the final air pressure does not exceed 10 psig (67 kilopascals) and which depends on relatively large volumes of air to atomize the coating.
- 219** **HIGH-VOLUME LOW PRESSURE (HVLP) SPRAY-GUN:** Spray application equipment that is permanently labeled as such and used to apply any coating by means of a spray-gun, which is designed to atomize 100 percent by air pressure only and is operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.
- ~~217~~ **220** **LACQUER:** A coating which becomes or remains soft when subjected to heat (thermoplastic), which dries primarily by solvent evaporation, and which is resolvable in its original solvent.
- ~~218~~ **LOW PRESSURE GUN:** An air atomized spray gun which by design functions best at tip pressures below 10 psig (0.7 bar), measured according to subsection 502.4, and for which the manufacturer makes no written claims that the gun can be used effectively above 12 psig (0.8 bar).
- 221** **MIDCOAT:** A semi-transparent topcoat which is the middle topcoat applied as part of a three-stage process.
- ~~219~~ **222** **MIXING INSTRUCTIONS:** The coating or coating component manufacturer's or importer's specification of the quantities of coating components for mixing a coating.
- ~~220~~ **223** **MOBILE EQUIPMENT:** Any equipment that is physically capable of being driven or drawn upon a highway including, but not limited to, the following types of equipment: construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (such as wheel tractor, plow, pesticide sprayer); hauling equipment (such as truck trailers, utility bodies, camper shells); and miscellaneous equipment (such as street cleaners, golf carts, all terrain vehicles)

~~{ATVs}, mopeds) etc.~~ Any equipment that is physically capable of being driven or drawn upon a highway and that is not eligible as or considered an automobile used for transportation on roads or highways, even if such mobile equipment is self-propelled. Mobile equipment includes but is not limited to, the following types of equipment:

223.1 Hauling equipment, such as truck trailers, utility bodies, and camper shells;

223.2 Miscellaneous equipment, such as golf carts, all-terrain vehicles (ATVs), and mopeds; and

223.3 Equipment used inside and around an airport, dock, depot, and industrial and commercial plants.

224 **MOTOR HOME:** A motor vehicle originally designed, or permanently altered, and equipped for human habitation as defined in Arizona Revised Statutes (A.R.S.) § 28-4301(20).

225 **MOTOR VEHICLE:** A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including both small and large sized vehicles trucks, buses, large sized off-road equipment and any non-motorized attachments, such as but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

226 **MOTORCYCLE:** A motor vehicle other than a tractor having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and weighing less than 1500 pounds, except that four wheels may be in contact with the ground when two of the wheels are a functional part of a sidecar.

~~224~~ **227** **MULTI-COLORED TOPCOAT PROCESS:** A ~~topcoat~~ process that exhibits more than one color when applied, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

228 **MULTI-STAGE PROCESS:** A basecoat/clearcoat topcoat system or any three-stage or more system, manufactured as a system, and used as specified by the manufacturer.

229 **PAINT STRIPPING:** The removal of dried coatings from wood, metal, plastic, and other substrates. A single source may have multiple paint stripping operations.

230 **PRETREATMENT COATING:** Any coating that contains a minimum of one-half (0.5) percent acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.

~~222~~ **PRETREATMENT WASH PRIMER:** A primer that contains a minimum of 0.5 percent acid by weight that is applied directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent coatings.

~~223~~ **231** **PRIMER:** Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and/or adhesion.

~~224~~ **232** **PRIMER-SEALER:** Any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and/or color uniformity and to promote the ability of an undercoat to resist penetration by the topcoat.

- ~~225~~ **233** **PRIMER-SURFACER:** Any coating applied prior to the application of a topcoat for the purpose of filling surface imperfections in the substrate, corrosion resistance, and/or adhesion of the topcoat.
- ~~226~~ **234** **REDUCER:** Any solvent used to thin ~~enamels~~ coatings.
- ~~227~~ **235** **REFINISH, REFINISHING:** Recoating of previously paint-finished parts of a motor vehicle, motorcycle or of the body of an automobile/light duty vehicle. The body does not include mechanical parts or chassis, except as they are incorporated into the surface of the body, such as a motor driven mirror assembly and coated underbody.
- ~~228~~ **236** **SINGLE-STAGE TOPCOATPROCESS:** ~~A topcoat consisting of only a single coating formulation applied in one or more coats.~~ A pigmented automotive coating, excluding primers and multi-color coatings, specifically labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.
- 237** **SOLVENT CLEANER:** A solvent used to remove contaminants and other materials, such as dirt, grease, or oil from equipment associated with a coating operation, such as spray booths, spray-guns, racks, tanks, and hangers.
- ~~229~~ **238** **SPECIALTY COATING:** Any coating that is specifically designated by the coating manufacturer as being one or more of the following:
- ~~229.1~~ **238.1** **Adhesion Promoter:** A coating designed to facilitate the bonding of a primer or topcoat on surfaces such as trim moldings, door locks, and door sills, where sanding is impracticable, and on plastic parts and the edges of sanded areas.
- ~~229.2~~ **238.2** **Bright Metal Trim Repair Coating:** A coating applied directly to chrome plated or other bright metal surface(s) to attain a desired appearance.
- ~~229.3~~ **238.3** **Cut-In, or Jambing, Clearcoat:** A fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.
- ~~229.4~~ **238.4** **Elastomeric Coating:** A coating designed for application over flexible parts, such as elastomeric bumpers.
- ~~229.5~~ **238.5** **Impact-Resistant Coating:** A specialty coating used on the lower 12 inches (31.6 cm) of a quarter-panel, door, or fender to resist chipping caused by road debris.
- ~~229.6~~ **238.6** **Low-Gloss Coating:** A coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.
- ~~229.7~~ **238.7** **Radar Dispersing Coating:** A coating designed to disperse radar signals, applied to any part of a military vehicle or military mobile equipment.
- 238.8** **Truck Bed Liner Coating:** Any coating, excluding clear, color, multi-color, and single stage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.
- ~~229.8~~ **238.9** **Underbody Coating:** A coating designed for protection and sound deadening that is typically applied to the wheel wells and underbody of an automobile.
- ~~229.9~~ **238.10** **Uniform Finish Blenders:** Any coating that is applied in a spot repair for the purpose of blending a paint overspray (“feathered”) area of a repaired topcoat to match the appearance of an adjacent existing topcoat.

- ~~229.10~~ **238.11** **Water Hold-Out Coating:** A coating applied to the interior cavity areas of doors, quarter panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.
- ~~229.11~~ **238.12** **Weld-Through Primer:** A primer that is applied to an area before welding is performed, and that provides corrosion resistance to the surface after welding has been performed.
- ~~230~~ **239** **SPOT REPAIR ON A HEAVY TRUCK GROUP II MOTOR VEHICLES:** A repair of a damaged or uncoated area of a Group II motor vehicle heavy truck in which not more than a total of 1 liter (1.1 quart) of topcoat(s) and a total of 1 liter primers are used; and such coatings are applied from a reservoir that can hold no more than 1.2 liters when completely full.
- ~~231~~ **SURFACE PREPARATION AND SURFACE CLEANING FLUIDS:** ~~Fluids that are used to prepare a surface for further operations by aiding the removal of grime, greases, waxes, unwanted deposits and embedded particles from the surface.~~
- 240** **SPRAY-APPLIED COATING OPERATIONS:** Applies to operations in which coatings are applied using a hand-held device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this rule, spray-applied coating operations do not include the following materials or activities:
- 240.1** Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electro-deposition coating, web coating, coil coating, touch-up markers, or marking pens;
- 240.2** Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.
- 241** **STRIPPABLE BOOTH COATING:** A temporary coating that is applied to a paint booth wall to provide a protective film to receive overspray during finishing operations and that is subsequently peeled off and disposed of.
- ~~232~~ **STRIPPERS:** ~~Powerful solvents used to dissolve permanent, cured coatings, usually to attain a bare substrate.~~
- 242** **SURFACE PREPARATIONS:** Products designed to remove old coatings and rust, either mechanically or chemically, or to prepare for a new coating. Preparation products include paint strippers and products used to prepare a surface for further operations by aiding the removal of grime, oil, grease, wax, unwanted deposits and embedded particles from the surface.
- ~~233~~ **243** **THINNER:** Any solvent used to reduce the viscosity or solids content of a coating.
- ~~234~~ **244** **THREE-STAGE TOPCOAT PROCESS:** A ~~topcoat process~~ composed of a pigmented basecoat, a midcoat, and a transparent clearcoat.
- ~~235~~ **245** **TOPCOAT:** Any coating or series of coatings applied over a primer or an existing finish for the purpose of protection or beautification.
- ~~236~~ **246** **TOUCH-UP COATING:** A coating applied by brush, air-brush, or non-refillable aerosol can to cover minor surface damage.

~~237~~ ~~**TWO-STAGE TOPCOAT:** A topcoat consisting of a pigmented basecoat and a transparent clearcoat.~~

247 **TRANSFER EFFICIENCY:** The ratio of the weight or volume of coating solids adhering to the part being coated to the weight or volume of coating solids as applied in the application process, expressed as a percentage.

248 **TRUCK:** A motor vehicle designed, used, or maintained primarily for the transportation of property.

248.1 **Large-Sized Truck:** Any motor vehicle having a manufacturer's gross vehicle weight rating of more than 8600 pounds.

248.2 **Medium-Sized Truck:** Any motor vehicle having a manufacturer's gross vehicle weight rating of 6001 to 8600 pounds.

248.3 **Small-Sized Truck:** Any motor vehicle having a manufacturer's gross vehicle weight rating of 6000 pounds or less and which is designed primarily for the purposes of transportation of property or is a derivative of such vehicle, or is available with special features enabling on-street or off-highway operation and use.

249 **TWO-STAGE PROCESS:** A process consisting of a pigmented basecoat and a transparent clear coating.

250 **VAN:** A closed truck for carrying property or persons.

250.1 **Medium-Sized Van:** A van having a manufacturer's gross vehicle weight rating of 6001 to 8600 pounds.

250.2 **Small-Sized Van:** A van having a manufacturer's gross vehicle weight rating at 6000 pounds or less.

~~238~~ ~~**VEHICLE REFINISH COATING COMPONENT:** Any portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end users for vehicle refinishing. The raw materials (such as polyurethane resin, etc.) used to produce the components that are mixed by the end user to prepare a coating for application are not considered vehicle refinish coating components.~~

~~239~~ ~~**VEHICLE REFINISHING OPERATION:** For the purposes of this rule, any coating of vehicles or mobile equipment, their parts and components, including partial body collision repairs, for the purpose of protection, restoration or beautification, and which is subsequent to the original coating applied at a coating assembly line at an Original Equipment Manufacturing (OEM) plant.~~

240 **251** **VOC CONTENT:** See subsections 503.2 and 503.3. The portion of a chemical or substance of the organic compound that participates in atmospheric photochemical reactions, except for the non-precursor organic compounds. Section 503 of this rule instructs how to calculate the VOC content of a substance.

SECTION 300 – STANDARDS

301 **LIMITATIONS: VOC CONTENT OF REFINISH COATINGS FOR LIGHT DUTY VEHICLES: VOC COATING LIMITS FOR MOTOR VEHICLE COATING OR REFINISHING**

301.1 No person shall sell for use, supply for use, or apply, coating on a previously finished automobile/light duty vehicle in Maricopa County unless the coating's VOC content

complies with the applicable limits in Table 1 **VOC Coating Limits:** The VOC coating limits for refinishing motor vehicles, mobile equipment, their parts and components are listed in Tables 345-1, 345-2, and 345-3 of this rule.

- a. VOC content is determined according to Sections 502, 503.2, and 505.
- b. Compliance will be determined based on the VOC content limit, as expressed in metric units. (English units {lbs VOC/gal} are provided for information only.)

TABLE 1
REFINISHES APPLIED TO THE BODIES OF AUTOMOBILE/LIGHT DUTY VEHICLES OR
MOTORCYCLES
VOC LIMITS FOR REFINISH COATINGS AS APPLIED, MINUS EXEMPT COMPOUNDS

TABLE 345-1
VOC COATING LIMITS FOR GROUP I MOTOR VEHICLES AND MOBILE EQUIPMENT

Coating Category/Type of Coating	Grams VOC per liter	Pounds VOC per gal
Pretreatment wash primers <u>Pretreatment coating</u>	780	6.5
Primers/primer surfacers <u>Primer surfacers</u>	580	4.8
Primer sealers	550	4.6
Single / or two-stage topcoats <u>process</u>	600	5.0
Topcoats <u>Process</u> of more than two stages	630	5.2
Multi-colored topcoats <u>process</u>	680	5.7
Specialty coatings	840	7.0
Strippable booth coatings	420	3.5
<u>Surface preparations or Solvent cleaners</u>	<u>168</u>	<u>1.4</u>

301.2 ~~Refinishing Surfaces that are Not Part of Body/Chassis: The recoating of a section of a light-duty vehicle that is not part of its body/chassis, its body's appurtenances, nor its wheels, shall comply with the VOC limits of Table 3. This includes drive train, steering gear, suspension, etc.~~

301.3 ~~Refinishing Replacement Appurtenances on the Vehicle Body: Vehicle body appurtenances such as mirrors, trim strips, license plate frames, etc., used to replace or supplement existing appurtenances on an automobile/light-duty vehicle bodies may be coated with coatings that meet the applicable VOC limits in Table 1, even if the item has never been coated or used.~~

302 ~~REFINISHING HEAVY DUTY TRUCKS AND TRUCK TRAILERS:~~

302.1 ~~Refinish VOC Limits: No person shall apply refinish coating to any section or appurtenance of the body or chassis of a heavy truck unless that coating complies with the VOC limits in Table 2.~~

- a. VOC content is determined according to Sections 502, 503.2, and 505.
- b. Compliance will be determined based on the VOC content limit, as expressed in metric units. (English units {lbs VOC/gal} are provided for information only.)

TABLE 2

VOC LIMITS FOR REFINISH COATING AS APPLIED TO HEAVY TRUCK BODIES

VOC LIMIT and Effective Date	Current	November 1, 1999	November 1, 2000	November 1, 2001	ROW
TYPE OF COATING					
Pretreatment wash primer	780 g/L 6.5 lb/gal				1
Primers/primer surfacers	580 g/L 4.8 lb/gal	same	same	420 g/L 3.5 lb/gal	2
Primer sealers	550 g/L 4.6 lb/gal	same	same	420 g/L 3.5 lb/gal	3
Single stage, solid color	600 g/L 5.0 lb/gal	same	same	420 g/L 3.5 lb/gal	4
Single stage, metallic/iridescent	550 g/L 4.6 lb/gal	same	same	420 g/L 3.5 lb/gal	5
2-Stage topcoat basecoat & clearcoat	600 g/L 5.0 lb/gal per formula**	same	same	480 g/L 4.0 lb/gal per formula**	6
Topcoats of more than two stages	630 g/L 5.2 lb/gal per formula**	same	same	480 g/L 4.0 lb/gal for trailers**	7
Spot coats, 1 liter limit each stage	600 g/L 5.0 lb/gal			546 g/L (11/2/02)	8
Specialty Coatings as defined by §231	840 g/L 7.0 lb/gal				9
Strippable booth coatings	2.0 lb/gal				

**Formula for computing the VOC content of multi stage coating is in subsection 503.1

302.2 — ~~Refinishing Replacement Appurtenances on A Heavy Truck: At the time of (re)placement, a person may coat heavy truck body appurtenances such as mirrors, trim strips, license plate frames, wheel covers, etc., with coatings that meet the applicable VOC limits in Table 2 or the requirements of subsection 302.3, if the item is about to be used to replace or supplement existing appurtenances, even if the item has never been coated or used.~~

302.3 — ~~Spot Refinishing of Heavy Trucks: A person may coat a heavy truck panel, a juncture of panels, or a body appurtenance using a coating with a VOC content that does not exceed the VOC limits set forth in subsection a below, provided that the coatings as applied meet the requirements as set forth in subsection b:~~

a. — ~~VOC Limits for Spot Refinishing of Heavy Trucks:~~

(1) — ~~Through November 1, 2002— 600 g VOC/L (5.0 lb VOC/gal).~~

(2) — ~~After November 1, 2002— 546 g VOC/L (4.55 lb VOC/gal).~~

b. — ~~Volume Limits:~~

(1) — ~~The coating shall be applied from a reservoir having a gross volume not exceeding 1.2 liters (5 cups) and containing no more than 1 liter (1.1 qt.) of coating.~~

(2) — ~~The complete topcoat of a single stage finish shall not use more than 1 liter.~~

- ~~(3) The complete topcoat of a multi-stage finish shall not exceed 2 liters.~~
- ~~(4) The total of all non-topcoat coatings, including wash and primers shall not exceed 1 liter.~~

e. Wash Primers may have up to 780 g/L (6.5 lb/gal).

TABLE 345-2
VOC COATING LIMITS FOR GROUP II MOTOR VEHICLES

<u>Type of Coating</u>	<u>Grams VOC per liter</u>	<u>Pounds VOC per gal</u>
<u>Pretreatment coating</u>	<u>780</u>	<u>6.5</u>
<u>Primer surfacers</u>	<u>420</u>	<u>3.5</u>
<u>Primer sealers</u>	<u>420</u>	<u>3.5</u>
<u>Single stage process, solid color</u>	<u>420</u>	<u>3.5</u>
<u>Single stage process, metallic/iridescent</u>	<u>420</u>	<u>3.5</u>
<u>2-Stage process - basecoat & clear coating</u>	<u>480</u>	<u>4.0</u>
<u>Process of more than two stages</u>	<u>480</u>	<u>4.0</u>
<u>Spot Repair, 1 liter each stage (Volume limits apply Section 301.3 of this rule)</u>	<u>546</u>	<u>4.6</u>
<u>Specialty coatings</u>	<u>840</u>	<u>7.0</u>
<u>Strippable booth coatings</u>	<u>240</u>	<u>2.0</u>
<u>Surface preparations or Solvent cleaners</u>	<u>168</u>	<u>1.4</u>

303 — ~~COATING NEW SURFACES & REFINISHING HEAVY VEHICLES:~~

- ~~303.1 Coating New or Never Coated Surfaces: New or never coated surfaces of mobile equipment and of a vehicle, including a heavy truck, that is not manufactured under NAICS code 33611, are subject to a VOC limit of 3.5 lb VOC/gal (420 g/L) for all unbaked coatings over metal or plastic. The VOC content of coating applied on or over surfaces included in Table 3 shall comply with the VOC limits of Table 3.~~
- ~~303.2 Refinishing Surfaces that are Not Part of Body/Chassis: The recoating of a section of mobile equipment or a heavy duty vehicle, including a heavy truck, that is not part of its body/chassis, its wheels, nor appurtenances, shall comply with the VOC limits of Table 3. This includes drive train, steering gear, suspension, etc.~~
- ~~303.3 Refinishing Mobile Equipment and Heavy Duty Vehicles: No person shall refinish mobile equipment or any heavy duty vehicle that is not a heavy truck unless the coating as applied conforms to the VOC limits in Table 3, except that pre-treatment acid etchant wash shall conform to the VOC limits of row 1 in Table 2.~~

TABLE 3
VOC Limits for Coating As Applied To Uncoated Vehicle Surfaces COATING

COATING ON METAL SURFACES		
The following includes Coating, Adhesive, & Adhesive Primer	Lbs. per gallon	Grams per liter
Air Dried Coating	3.5	420
Baked Coating [above 200°F (93°C)]	3.0	360

COATING ON VINYL SURFACES	3.8	450
COATING ON FABRIC SURFACES	2.9	350
COATING PLASTIC SURFACES not defined as flexible	3.5	420
COATING FLEXIBLE PLASTIC SURFACES (not Vinyl)		
Primer	4.1	490
Color Topcoat	3.8	450
Basecoat/Clear Coat (Combined System)	4.5	540

TABLE 345-3

VOC COATING LIMITS AS APPLIED TO UNCOATED VEHICLES & MISCELLANEOUS SURFACES

<u>COATING ON METAL SURFACES</u>	<u>Grams VOC per liter</u>	<u>Pounds VOC per gal</u>
<u>The following includes coating, adhesive, and adhesive primer</u>		
<u>Air Dried Coating</u>	<u>420</u>	<u>3.5</u>
<u>Baked Coating (above 200°F (93°C))</u>	<u>360</u>	<u>3.0</u>
<u>COATING ON VINYL SURFACES</u>	<u>450</u>	<u>3.8</u>
<u>COATING ON FABRIC SURFACES</u>	<u>350</u>	<u>2.9</u>
<u>COATING ON PLASTIC SURFACES (not defined flexible)</u>	<u>420</u>	<u>3.5</u>
<u>COATING FLEXIBLE PLASTIC SURFACES (not vinyl)</u>		
<u>Primer</u>	<u>490</u>	<u>4.1</u>
<u>Color Topcoat</u>	<u>450</u>	<u>3.8</u>
<u>Basecoat/Clear Coating (Combined System)</u>	<u>540</u>	<u>4.5</u>

304 **301.2** **Mixing Requirements:**

- 304.1 ~~Suppliers Provide Mixing Instructions: No person shall supply vehicle refinishes regulated by Table 1 or Table 2 of this rule unless instructions for proper mixing/diluting are provided.~~
- 304.2 ~~Vehicle Appropriate VOC Content and Instructions: If a supplier of a refinish coating represents that such coating is appropriate to coat a particular type of vehicle listed in Table 1 or Table 2:~~
- a. ~~The coating as mixed and applied must meet the applicable VOC limit in Table 1 or Table 2; and,~~
 - b. ~~The supplier must provide only those mixing/blending instructions that meet the VOC limit; except,~~
 - e. ~~Instructions that included both compliant and non-compliant formulation directions are acceptable if they have a line, mark, or totally obscuring coating through/over each word of all non-compliant mixing instructions.~~
- 304.3 ~~Mixing Requirements for the Coating User: No person~~ An owner and/or operator who adds adding VOC containing thinner, reducer, or other diluent to any refinish coating regulated by either Table 1 or Table 2 Tables 345-1, 345-2, or Table 345-3 of this rule shall meet the applicable VOC limits found in such tables. add such diluents in

proportions higher than those specified or recommended by the instructions provided by the supplier of the coating.

301.3 Volume Limits for Spot Repair on Group II Motor Vehicles:

- a. The coating shall be applied from a reservoir having a gross volume not exceeding 1.2 liters (5 cups) and containing no more than 1 liter (1.1 qt.) of coating.
- b. The complete coating of a single stage finish shall not exceed more than 1 liter.
- c. The complete coating of a multi-stage finish shall not exceed 2 liters.
- d. The total of all non-topcoat coatings, including wash and primers shall not exceed 1 liter.

301.4 Calculation of VOC Content: VOC content shall be calculated according to Section 503 of this rule.

301.5 Compliance: Compliance will be determined based on the VOC content limit, as expressed in metric units. English units (lbs VOC/gal) are provided for information only.

302 OPERATING REQUIREMENTS:

305 **302.1 SURFACE PREPARATION AND SURFACE CLEANING FLUIDS** **Surface-Preparations and Solvent Cleaners:** Limits and work practices for surface preparations and solvent cleaners include the following:

- 305.1 a. ~~A person~~An owner and/or operator cleaning or preparing a surface of a motor vehicle or mobile equipment for coating using a wipe method or other non-dip method shall use a material with a VOC content as applied of no more than 1.4 pounds of VOC per gallon as determined calculated by methods the formula set forth in subsections 502.1d or 502.3Section 503.3 of this rule.
- 305.2 b. ~~Neither surface cleaning nor surface preparation material that contains VOC~~ Surface preparations containing VOC shall not be applied by means of motor-compressed air if applied in a mist or (finely atomized) spray.
- 305.3 c. **Dip Cleaning:** Dip cleaning requirements for motor vehicle or mobile equipment surfaces are described in Rule 331(Solvent Cleaning) of these rules. applies to the dip cleaning of vehicle or mobile equipment surfaces.
- d. **Paint Stripping:** An owner and/or operator using a tank for stripping off coatings or for cleaning objects shall:
 - (1) Cover tanks when not in use; and
 - (2) Minimize solvent dragout by tilting or rotating the object to drain off any pools of solvent before removing the object from above the tank.

302.2 Emission Control System (ECS): As an alternative to meeting an applicable coating-VOC limit and/or work practice pursuant to Sections 301 and 302 of this rule, an owner and/or operator is allowed to operate an Emission Control System (ECS) that reduces VOC emissions by at least 85% pursuant to Section 504 of this rule.

306 **302.3** ~~Any person~~ **Maintenance:** An owner and/or operator subject to this rule shall operate and maintain in proper working order all production and cleaning equipment in which VOC-containing materials are used or stored.

302.4 **Storage and Disposal of VOC and VOC-Containing Material:** An owner and/or operator subject to this rule shall:

- a. Store all VOC-containing materials, including but not limited to waste coatings, waste solvents and their residues, and rags in closed containers.
- b. Post a legible label identifying all container's contents in clear view on the container.
- c. Keep all containers closed except when contents are added or removed.
- d. Dispose of waste or surplus VOC-containing materials in a manner that inhibits VOC evaporation, such as having these materials hauled off site in sealed containers.
- e. Collect all solvent cleaner used to manually clean spray-guns in a container and close the container immediately after all of the solvent cleaner has been collected.

303 **APPLICATION REQUIREMENTS**

307 **303.1** ~~PAINT GUN REQUIREMENTS AND LIMITS~~ **Spray-Gun Requirements and Limits:**

307.1 a. ~~No person shall apply any coating with a VOC content exceeding 3.0 lb VOC/gal (360 g/l) using a spray gun, unless such spraying employs one of the following devices or systems:~~ An owner and/or operator subject to this rule shall employ one of the following devices or systems when conducting a spray-applied coating operation that uses a coating that is equal to or greater than 3.0 lb VOC/gal (360 g/l):

- a. ~~(1)~~ A low pressure spray gun or system (such as HVLP) A high-volume low pressure (HVLP) spray-gun that meets the definition of HVLP in this rule and that meets the spray-gun tip pressure measurement test described in Section 502.4 of this rule;
- b. ~~(2)~~ An electrostatic system;
- c. ~~(3)~~ A system that atomizes principally by hydraulic pressure, including "airless", "air-assisted airless"; or
 - (4) An Alternative Application Method: Any method which achieves either an HVLP equivalent or a transfer efficiency of greater than or equal to 65% as demonstrated in accordance with the provisions of Section 505.3(d) of this rule.

307.2 b. ~~A person is allowed to use a spray gun other than one allowed by subsection 307.1 under the following conditions~~ An owner and/or operator subject to this rule is allowed to use a device or system other than that described in Section 303.1(a) of this rule under any one of the following conditions:

- a. ~~(1)~~ For applying materials that have a VOC content not exceeding 3.0 lb VOC/gal (360 g/l) as applied, less water and non-precursor compounds. When conducting a spray-applied coating operation that uses a coating that is less than 3.0 lb VOC/gal (360 g/l).

- b- (2) If such spray-guns are designed and used solely for detailing and/or touch-up, and have a maximum reservoir capacity of 250 cc (8.8 fluid ounces).
- e- (3) If such spray-guns are used to apply adhesives.

303.2 **Spray-Gun Cleaning Requirements:** An owner and/or operator subject to this rule shall use a spray-gun cleaning machine to clean spray-guns except under all of the following conditions:

- a. When using a solvent cleaner that is water or a cleaning mixture that is more than 50 percent water by weight or volume.
- b. When using a solvent cleaner that is less than 10 percent VOC.
- c. When using a solvent cleaner that contains less than 8.0 percent by weight of VOC (including water and non-precursor organic compounds).
- d. When using a solvent cleaner that has a VOC-vapor pressure below 35 mm Hg at 20°C (68°F).
- e. When cleaning is done without spraying or atomizing a solvent cleaner with the gun.

303.3 **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 which 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. Have all covers and other surfaces that are exposed to gaseous or liquid solvent cleaner be impervious to both gaseous and liquid solvent cleaner.
- f. Be located on-site where the spray application occurs.

303.4 **Spray-Gun Cleaning Machine-Specific Requirements:** The spray-gun cleaning machine shall meet all of the following requirements, as applicable:

- a. **Automatic Spray-Gun Cleaning Machine:** If the spray-gun cleaning machine is an automatic spray-gun cleaning machine, then the spray-gun cleaning machine shall meet all of the following requirements:
 - (1) Be self-covering or enclosing when not loading or unloading.
 - (2) Have a self-closing cover or other self-enclosing feature which in the cover's closed position allows no gaps exceeding 1/8 inch (3 mm) between the cover and the cabinet.
 - (3) Be designed and maintained to prevent operation of its mechanical cleaning feature(s) unless it is completely covered or enclosed to the gap limits specified in Section 303.2(a)(2)(a)(ii) of this rule.

b. Non-Automatic Remote Reservoir Spray-Gun Cleaning Machine: If the spray-gun cleaning machine is a non-automatic remote reservoir spray-gun cleaning machine, then the spray-gun cleaning machine shall meet all of the following requirements:

- (1) Drain solvent cleaner from the sink/work-space quickly into a remote reservoir when work-space is not in use.
- (2) Have the machine reservoir ability to contain VOC vapors and not have a cumulative total opening, including the drain opening(s), allowing VOC-escape to the atmosphere exceeding two square inches in area.
- (3) Allow a machine design in which the base of the sink/work-space functions 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 303.2(a)(2)(a)(ii) of this rule.

303.5 Line Cleaning: All solvent cleaner used for line cleaning shall be pumped or drained into a container and kept closed when not in use. Line cleaning shall not be conducted by spraying or atomizing solvent cleaner with the gun.

~~308 — EMISSION CONTROL SYSTEM: As an alternative to meeting an applicable coating-VOC limit and/or work practice pursuant to Sections 302, 304, 305, or 307, an operator is allowed to operate an Emission Control System (ECS) that reduces VOC emissions by at least 85%, pursuant to Section 504.~~

~~309 — CLEANUP AND CLEANING SUPPLY AND APPLICATION EQUIPMENT:~~

~~309.1 — All solvent used to manually clean spray guns shall be collected into a container which shall be immediately closed after all the solvent has been collected.~~

~~309.2 — All solvent used for line cleaning shall be pumped or drained into a container kept closed when not in use.~~

~~309.3 — Tanks used for stripping off coating or for cleaning objects shall be covered when not in use. Solvent dragout shall be minimized by tilting or rotating the object to drain off any pools of solvent before removing the object from above the tank.~~

~~310 — GUN CLEANING MACHINES: Any person subject to this rule shall use a paint gun cleaning machine to clean paint guns if the vehicle refinishing operation is required to have an Air Pollution Control Permit by Rule 200 of these Rules.~~

~~310.1 — Manual Pre-Cleaning and Water Cleanup:~~

~~a. — Manual cleaning outside of the cleaning machine is allowed if the cleaning machine is used immediately after manual cleaning, and if done without spraying cleaning solvent with the gun.~~

~~b. — A cleaning machine is not required to clean a paint gun if the gun is cleaned with water or a cleaning mixture that is more than 1/2 water by weight or volume.~~

~~310.2 — General Requirements for Gun Cleaning Machines: The gun cleaning machine shall:~~

~~a. — Be designed to clean paint guns and be kept in proper repair and free from liquid leaks.~~

- ~~b. Have at least one pump which drives cleaning solvent through and over the gun, and a basin which permits containment of the cleaning solvent.~~
- ~~c. Have all covers and other surfaces that are exposed to gaseous or liquid VOC solvent be impervious to both gaseous and liquid VOC solvent.~~

~~310.3 Specific Requirements for 2 Types of Cleaning Machines:~~

~~a. Automatic Gun Cleaning Machine:~~

- ~~(1) Shall be self covering or enclosing when not loading or unloading.~~
- ~~(2) The machine shall have a self closing cover or other self enclosing feature which in the cover's closed position allows no gaps exceeding 1/8 inch (3 mm) between the cover and the cabinet.~~
- ~~(3) The machine shall be designed and maintained to prevent operation of its mechanical cleaning feature(s) unless it is completely covered or enclosed to the gap limits specified in the preceding subsection 310.3a.(2).~~

~~b. Non Automatic Remote Reservoir Gun Cleaning Machine:~~

- ~~(1) The cleaning machine shall be designed such that cleaning solvent drains from the sink/work space quickly and completely into a remote reservoir when the work space is not in use.~~
- ~~(2) The reservoir shall have the ability to contain VOC vapors and shall not have a cumulative total opening, including the drain opening(s), allowing VOC escape to the atmosphere exceeding two square inches in area.~~
- ~~(3) Machine designs are allowed in which the base of the sink/work space functions as the reservoir's top surface, as long the fit/seal between sink base and reservoir container allows the reservoir to meet the opening limits specified in the preceding subsection 310.3b(2).~~

~~311 STORAGE AND DISPOSAL OF VOC AND VOC CONTAINING MATERIAL:~~

~~311.1 Any person subject to this rule shall store all VOC containing materials, including but not limited to waste coatings, waste solvents and their residues, and rags in closed containers.~~

~~311.2 A container must have a legible label identifying the container's contents.~~

~~311.3 A container shall be kept closed except when contents are added or removed.~~

~~311.4 Disposal of waste or surplus VOC containing materials shall be done in a manner that inhibits VOC evaporation, such as having these materials hauled off site in sealed containers.~~

~~312 EXEMPTIONS:~~

~~312.1 Exemptions from other Rules: Maricopa County Air Pollution Rules and Regulations Rules 330 and 336 do not apply to any vehicle or mobile equipment coating or refinishing operation to which this Rule 345 is applicable.~~

~~312.2—Formal Vehicle Refinishing Training: A student in classes at an accredited school which teaches vehicle refinishing is exempt from the recordkeeping provisions of this rule.~~

~~312.3—Coating with a non-refillable aerosol can is exempt from this Rule 345.~~

~~312.4—Out of Date Coatings: Coating otherwise subject to Table 1 limits but manufactured before January 15, 1999, is exempt from Table 1 VOC limits until November 1, 1999.~~

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 ECS EMISSIONS CONTROL SYSTEM (ECS) SCHEDULE: Any owner and/or operator intending to install an ECS in a facility to comply with requirements of this rule shall comply with the requirements of ~~subsection 504.3~~ Section 504 of this rule.

~~402—THE RESPONSIBILITIES OF LARGE USERS:~~

~~402.1—The owner or operator of a facility which emits 10,000 pounds or more of VOC in any calendar year must submit a report of such emissions on a form supplied by the Department after the end of that calendar year.~~

~~402.2—An owner or operator of a facility which in a calendar year meets or exceeds any of the following quantities must notify the Control Officer of this fact in writing by February 28 (within two months) after the end of that calendar year:~~

~~a.—Used a total of 1000 gallons (3785 l) of coating (with reducer and hardener); or~~

~~b.—Received a total of 1300 gallons (4920 l) of cleaning solvent, lacquer thinner and wash thinner; or~~

~~c.—Disposed of more than 1000 gallons or 6000 pounds (2722 kg) to hazardous waste collection; or~~

~~d.—Submitted a total exceeding 9000 pounds (4082 kg) of VOC in the facility's most recently completed Maricopa County annual air emission inventory form.~~

~~402.3—The Control Officer may require in writing a report of annual emissions from a facility which has given notification as required by the preceding subsection 402.2, or from any other facility which in the Control Officer's determination can have annually emitted 5 tons (4536 kg) or more of VOC.~~

~~403—JOBBER/SUPPLIERS RECORDKEEPING RESPONSIBILITY FOR REFINISHES:~~

~~403.1—An owner or operator selling or supplying vehicle refinishing coatings, coating components, or refinishing supplies directly to facilities that refinish automobiles, light-duty vehicles, or heavy trucks in Maricopa County shall maintain records of the VOC content of such materials; and~~

~~a.—Records shall be sufficient to calculate the total VOC annually sold to facilities described in the preceding subsection 403.1.~~

~~b.—Records shall include sales of cleanup and surface preparation materials that contain more than 2% VOC by weight or volume, or more than 0.17 lb VOC/gal (20 g/L).~~

~~403.2—An owner or operator shall total cumulative vehicle refinishing VOC sold during a current calendar year (pursuant to 403.1) in a quarterly manner, by the end of the month following each quarter.~~

~~403.3—Jobbers or suppliers annually supplying less than 100 pounds of vehicle refinishes and supplying less than 100 pounds of cleaning/surface prep materials to vehicle refinishers are exempt from the requirement of subsections 403.1 and 403.2.~~

~~404—WEIGHT EXCLUSION: Vehicles having a manufacturer's gross vehicle weight rating of 8600 lbs or more are excluded from NAICS code 33611, unless clearly identified as being included by the NAICS, as incorporated by reference in Section 505.~~

SECTION 500 – MONITORING AND RECORDS

501 **RECORDKEEPING AND REPORTING:** ~~Any person~~ An owner and/or operator subject to this rule shall keep the following records required under this Section 501 of this rule, in a consistent and complete manner and shall make ~~them~~ records available to the Control Officer without delay during normal business hours, and shall keep records in either written or electronic format. An owner and/or operator subject to this rule shall retain records for five years. The Control Officer may account as VOC emissions to the atmosphere any VOC that is not accounted for by adequate records of disposal or of reuse within a facility. Records shall express VOC content in pounds of VOC per gallon (or grams/liter), less water and non-precursor organic compounds, excepting waterborne cleaners which shall include the water.

501.1 **Responsibility for Products in Use:** ~~An owner or operator shall maintain written records in the facility which give the name or code number of each VOC containing product and its VOC content as received. VOC content shall be expressed in pounds of VOC per gallon (or grams/liter), less water and non-precursors, excepting waterborne cleaners which shall include the water.~~ a. Examples of What to Include: All coating components as received from the supplier, before any in-house blending, such as coating base and tint base for topecoats, mideoats, primers, specialty coatings, sealers, and strippable booth coating; other coating components such as hardeners, catalysts, reducers, promoters, inhibitors and other coating additives; and stripper, wash thinner, lacquer thinner, gun cleaning solvent, surface prep cleaners and other cleaners, including waterborne cleaners which contain some VOC. A current list of all VOC coatings and solvent cleaners used that are subject to this rule shall include the following:

- a. Material name and manufacturer.
- b. Coating type (as listed in Tables 345-1, 345-2, 345-3 of this rule) and mix ratio specific to the coating.
- c. VOC actual for coatings and VOC regulatory for coatings as applied.
- d. VOC content for solvent cleaners.

501.2 **Alternative Application Method Transfer Efficiency Documentation:** If using an alternative application method for spray application of coatings, the manufacturer's certified spray-gun transfer efficiency documentation.

501.3 If using an HVLP spray-gun for spray application of coatings, results of the spray-gun tip pressure measurement test.

501.4 Hazardous wastes manifests.

~~b- 501.5~~ **Sufficient Documentation:** Any one of the following may be used to meet the requirements of ~~subsection 501.1, as long as all VOC containing refinishing products are accounted for pursuant to subsection 501.1, (first paragraph)~~ Section 501 of this rule:

- ~~(1) An up to date hardcopy (in writing) list prepared for that facility.~~
- (2) a. Current material safety data sheets (MSDS), Safety Data Sheets (SDS), or product data sheets showing ~~the~~ VOC content.
- (3) b. Purchase documentation that gives VOC content, such as invoices and/or receipts ~~showing VOC content identifying the coating type (as listed in Section 501.1 of this rule), name, and volume of coatings and solvents.~~
- (4) c. Current, dated manufacturers publications such as charts or lists which show VOC content, with the products used in the facility highlighted or otherwise clearly marked.

~~501.2~~ **501.6 Documentation of Purchases:** Purchase records showing the volume of each VOC-containing ~~refinishing coating~~ related product purchased shall be kept available. ~~for the current and the previous year.~~ Actual invoices and receipts showing the volume of the material purchased will suffice in place of ledger-style records.

~~501.3 Record Retention: Records shall be retained for five years.~~

~~501.4 Records: The Control Officer may account as VOC emissions to the atmosphere any VOC that is not accounted for by adequate records of disposal or of reuse within a facility.~~

502 COMPLIANCE DETERMINATION:

~~502.1 For routine purposes, the~~ The Control Officer may determine VOC content from a manufacturer's product data document such as a current manufacturer's safety data sheet (MSDS) or Safety Data Sheet (SDS) that provides exact product contents.

~~502.2 Measurement of VOC content of coating materials subject to this rule, including the requirements of Section 301, shall be conducted and reported in accordance with EPA Test Method 24 (as incorporated by reference in Section 505), with the following restrictions for multi-component, polymerizing coatings: Method 24 shall be a modified to eliminate the post-mixing dilution step (that employs toluene or other solvent). The mixture shall be spread instead by appropriate technique to form a thin layer, occupying the entire bottom of the foil pan. California's Bay Area Air Quality Management District Method 31 (amended 4/15/92) can be used as a guide for such spreading.~~ **Measurement of VOC Content of Coating Materials Subject to this Rule:** EPA Test Method 24 (as incorporated by reference in Section 505 of this rule) shall be used to determine VOC coating material content with the following restrictions for multi-component, polymerizing coatings:

- a. Method 24 shall be modified to eliminate the post-mixing dilution step (that employs toluene or other solvent) for the multi-component, polymerizing coatings.
- b. Method 31 (amended 5/18/2005) California's Bay Area Air Quality Management District shall be used as a guide for the multi-component, polymerizing coating measurement. The VOC measurement requires a specific technique of spreading a thin layer over the entire bottom of a foil pan used for the measurements. Refer to Section 505.3(a) of this rule as a guide for application of this method.

502.3 Low or No-Solids Materials:

- a. The VOC content of solutions, dispersions, and emulsions that have no solids or less than 5% solids shall be determined by either of the following methods: as incorporated by reference in Section 505 of this rule.
 - (1) Method 313-91 - South Coast Air Quality Management District, Method 313-91, as incorporated by reference in Section 505.
 - (2) Method 31 of California's Bay Area Air Quality Management District, as incorporated by reference in Section 505.
- b. Measurement of the VOC content of ~~cleaning fluids, including those cleaners limited by Section 305 of this rule,~~ solvent cleaners shall be calculated according to the formula in ~~subsection~~ Section 503.3 of this rule and applicable test methods in Section 505 of this rule.

502.4 ~~With reference to subsection 307.1a, measurement of air pressure at the tip of an air atomized paint spray gun that atomizes shall be performed using a device supplied by the gun's manufacturer for that purpose. The measurement shall be made dynamically at the center of the air cap and at the air horns, with the spray configured to a fan diameter of eight to ten inches on a flat surface being coated. The axis of the fan pattern shall be perpendicular to this surface.~~ **Spray-Gun Tip Pressure Measurement:** The measurement of air pressure of an air atomized spray-gun shall be demonstrated by any of the following methods:

- a. ~~Dynamically at the center of the air cap.~~
- b. ~~At the air horns, with the spray configured to a fan diameter of eight to ten inches on a flat surface being coated.~~
- e. ~~The axis of the fan pattern shall be perpendicular to this surface.~~
- a. Operating the air atomized spray-gun using an air pressure tip gauge supplied by the manufacturer of the spray-gun. The measurement of the air pressure shall be made dynamically at the center of the air cap and at the air horns. The measurement shall be performed upon request by the Control Officer.
- b. Identifying the permanent mark on the spray-gun of the maximum inlet air pressure of the spray-gun.
- c. Providing the maximum inlet air pressure of the spray-gun on the letterhead of the manufacturer of the spray-gun.
- d. Providing the maximum inlet air pressure of the spray-gun in the technical literature provided by the manufacturer of the spray-gun.

502.5 ~~Pretreatment Wash Primers: The acid weight percent of pretreatment wash primers must be determined using the American Society for Testing and Materials (ASTM) Test Method D-1613-96, as incorporated by reference in Section 505. If the pigment in a pretreatment wash primer prevents the use of this test method for determining the acid weight percent of the coating, then the test method shall be used for the nonpigmented component of the coating, and the acid weight percent shall be calculated based on the acid content of the nonpigmented component and the mixing ratio of the nonpigmented component to the remaining components recommended by the regulated entity.~~

Pretreatment Coatings: ASTM D1613-06 as incorporated by reference in Section 505.3(c) of this rule shall be used to determine the acid weight percent of a pretreatment coating, with the following exceptions:

- a. The pigment in a pretreatment coating prevents the use of this test method for determining the acid weight percent of the coating, then the test method shall be used for the non-pigmented component of the coating; and
- b. The acid weight percent shall be calculated based on the acid content and the mixing ratio of the non-pigmented component and compared to the remaining components recommended by the regulated entity.

502.6 ECS Testing:

- a. ~~The VOC content of gaseous emissions entering and exiting an ECS shall be determined by either EPA Method 18 or EPA Method 25 and its submethod(s), as are incorporated by reference in Section 505.~~ **EPA Method 18 or EPA Method 25 and its Submethod(s):** These methods, incorporated by reference in Section 505 of this rule, shall be used to determine VOC content of gaseous emissions entering and exiting an ECS.
- b. Capture efficiency of an ECS shall be determined either by EPA Method 204 and its submethods, or by using mass balance calculation methods in concert with EPA Methods 2, 2a, 2c, and 2d, as are incorporated by reference in Section 505 of this rule.

503 FORMULAS: For the purpose of determining compliance with the VOC content limits listed in the tables in Section 301 of this rule, the following calculations apply:

503.1 For the purpose of determining compliance with the VOC content limits in ~~Table 1~~ Tables 345-1, 345-2, and 345-3 of this rule, each regulated entity shall determine the VOC content of a coating using the procedures described in ~~subsection 503.2~~ Section 503.2 of this rule for a ~~single coating stage~~ single-stage process or as follows for the VOC content of a multi-stage ~~coating process~~.

$$\text{VOC multi} = \frac{\text{VOC}_{bc} + \sum_{i=0}^M \text{VOC}_{mc_i} + 2 \text{VOC}_{cc}}{M + 3}$$

$$\text{VOC multi} = \frac{\text{VOC}_{bc} + \sum_{i=0}^M \text{VOC}_{mc_i} + \text{VOC}_{cc}}{N}$$

Where:

- $\text{VOC}_{\text{multi}}$ = VOC content of multi-stage ~~topcoat~~ process, in grams VOC/liter of coating;
- VOC_{bc} = VOC content of the basecoat, as determined in ~~subsection 503.2~~ Section 503.2 of this rule;
- VOC_{mc_i} = VOC content of midcoat i, as determined in ~~subsection 503.2~~ Section 503.2 of this rule;

- VOC_{cc} = VOC content of the ~~clear coat~~ clear coating, as determined in ~~subsection 503.2~~ Section 503.2 of this rule; ~~and~~
- M = Number of midcoats; and
- N = Number of coats.

In a situation where a “ground coat” is used prior to a basecoat, use of the equation shall be adjusted as follows: The ground coat will be considered the basecoat and the basecoat will be considered one of the midcoats.

503.2 ~~Pounds of VOC per Gallon of Coating (Grams VOC/Liter)~~ Pounds of VOC Per Gallon of Coating Less Water and Less Exempt Compounds: The mass of VOC per combined volume of VOC-plus-coating-solids before coating application, which can be calculated by the following equation:

$$\text{Pounds of VOC per Gallon (Grams/liter) of Coating} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

- W_s = weight of volatile material in pounds (or grams)
- W_w = weight of water in pounds (or grams)
- W_{es} = weight of non-precursors in pounds (or grams)
- V_m = volume of total material in gallons (or liters if using grams)
- V_w = volume of water in gallons (or liters if using grams)
- V_{es} = volume of non-precursor compounds in gallons (or liters)

503.3 VOC Content of Cleaners and Reducers (Material VOC-Content):

$$\text{VOC Content of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

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 compounds in pounds (or grams)
- V_m = volume of total material in gallons (or liters)

504 EMISSION CONTROL SYSTEM (ECS) AND RELATED SYSTEM OPERATING REQUIREMENTS:

504.1 ECS Requirements: To meet the requirements pursuant to Section ~~308~~ 302.2 of this rule, an ECS shall be operated as follows:

- a. The emissions-processing subsystem of the ECS shall reduce the VOC entering it by at least 90 percent.
- b. Throughout the period when the VOC content exceeds the applicable VOC limits, the ECS shall be operated to control VOC emissions.
- c. Materials that exceed the applicable VOC-limits shall be clearly identified such that workers are informed an ECS must be used.

504.2 Recordkeeping for A an ECS:

- a. On each day that an ECS is used to comply pursuant to Section ~~308~~ 302.2 of this rule, an owner and/or operator shall record the amount and VOC content of the material for which the ECS was used.
- b. **ECS Operation and Maintenance Records:**
 - (1) On each day an ECS is used, make a permanent record of the operating parameters of the key systems as required by the Operations & Maintenance (O&M) Plan.
 - (2) For each day or period in which the O&M Plan requires that maintenance be performed, a permanent record shall be made of the maintenance actions taken within 24 hours of maintenance completion.

504.3 ECS Schedule: Any owner and/or operator of a facility, first intending to install and commence to use an ECS pursuant to ~~Section 308~~ Section 302.2 of this rule, shall submit for the Control Officer's approval an emission control plan describing the following: the ECS by the first day of the 4th month after the month in which such facility becomes subject to the ECS requirement. The plan shall show how the ECS is to be used to achieve full compliance. The plan shall specify dates for completing increments of progress, such as the contractual arrival date of new control equipment. The Control Officer may require a person submitting such emission control plan to submit subsequent reports on progress in achieving compliance. Any and all ECS used to achieve such compliance shall be in operation by 15 months after the facility becomes subject to the ECS requirement.

- a. Within three months that such facility has become subject to the ECS requirement, the owner and/or operator shall submit the ECS plan to the Control Officer;
- b. The ECS plan shall show how the ECS is to be used to achieve full compliance;
- c. The plan shall specify dates for completing increments of progress, such as the contractual arrival date of new control equipment;
- d. The Control Officer may require a person submitting such ECS plan to submit subsequent reports on progress in achieving compliance; and
- e. Any and all ECS used to achieve such compliance shall be in operation within 15 months after the facility becomes subject to the ECS requirement.

504.4 Operation and Maintenance (O&M) Plan Required for ECS: For any ECS used to meet the requirements of this rule:

- a. An owner ~~or~~ and/or operator shall provide and maintain (an) O&M Plan(s) for the ECS and any ECS monitoring device.
- b. The owner ~~or~~ and/or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device.
- c. The owner ~~or~~ and/or operator shall comply with all the identified actions and schedules provided in each O&M Plan.

504.5 Providing and Maintaining ECS Monitoring Devices: ~~Any person~~ Any owner and/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 and in operation, 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.

504.6 O&M Plan Responsibility: An owner ~~or~~ and/or operator of a facility that is required to have an O&M Plan pursuant to ~~subsection 504.4~~ Section 504.4 of this rule must fully comply with all O&M Plans that the owner ~~or~~ and/or operator has submitted for approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

505 TEST METHODS ADOPTED BY REFERENCE COMPLIANCE DETERMINATION-TEST METHODS INCORPORATED BY REFERENCE: ~~The EPA test methods as they exist in the Code of Federal Regulations (CFR) (July 1, 1998), as listed below, are adopted by reference. The other test methods listed here are also adopted by reference, each having paired with it a specific date that identifies the particular version/revision of the method that is adopted by reference. These adoptions by reference include no future editions or amendments. Copies of test methods referenced in this section are available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ, 85004~~ An exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of this rule.

505.1—EPA Test Methods:

- a.—EPA Methods 2 (“Determination of Stack Gas Velocity and Volumetric Flow Rate”), 2a (“Direct Measurement of Gas Volume Through Pipes and Small Ducts”), 2e (“Determination of Stack Gas Velocity and Volumetric Flow rate in Small Stacks or Ducts”), and 2d (“Measurement of Gas volumetric Flow Rates in Small Pipes and Ducts”). All 4 of the foregoing methods are in 40 CFR 60, Appendix A.
- b.—EPA Method 18 (“Measurement of Gaseous Organic Compound Emissions by Gas Chromatography”) and its submethods (40 CFR 60, Appendix A).
- e.—EPA Test Method 24 (“Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings”) (40 CFR 60, Appendix A).
- d.—EPA Method 25 (“Determination of Total Gaseous Nonmethane Organic Emissions as Carbon”) and its submethods (40 CFR 60, Appendix A).
- 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).

505.2—Other Test Methods (Not EPA):

- a. ~~California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings".~~
- b. ~~California's South Coast Air Quality Management District (SCAQMD) Method 313-91 (April, 1997).~~
- c. ~~American Society for Testing and Materials (ASTM) Test Method D 1613-96 (1996).~~

~~505.3 Other Reference Material: North American Industrial Classification System, Executive Office of the President, Office of Management and Budget, 1997, pp. 334-339, et. seq.~~

505.1 The EPA test methods, ASTM International (ASTM) standards and other documents as they exist in the Code of Federal Regulations (CFR) as listed below, are adopted and incorporated by reference in Appendix G of the Maricopa County Air Pollution Control Regulations. The ASTM test methods referenced in this section are available for review at the offices of Maricopa County Air Quality Department located at 1001 N. Central Ave., Phoenix, AZ, 85004.

- a. ASTM standards are also available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, or from its website at www.astm.org.
- b. Bay Area Air Quality Management District test methods are available from Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109, or from its website at www.baaqmd.gov.
- c. South Coast Air Quality Management test methods are available from South Coast Air Quality Management, 21865 Copley Drive, Diamond Bar, CA 91765, or from its website at: www.aqmd.gov.

505.2 EPA Test Methods:

- a. CFR 60, APPENDIX A-1:
 - (1) Method 2—Determination of stack gas velocity and volumetric flow rate (Type S pitot tube);
 - (2) Method 2A—Direct measurement of gas volume through pipes and small ducts;
 - (3) Method 2C—Determination of stack gas velocity and volumetric flow rate in small stacks or ducts (standard pitot tube);
 - (4) Method 2D—Measurement of gas volume flow rates in small pipes and ducts;
- b. 40 CFR 60, APPENDIX A:
 - Method 18 - Measurement of Gaseous Organic Compound Emissions by Gas Chromatography and its submethods.
- c. 40 CFR 60, APPENDIX A-7:
 - Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings.

d. 40 CFR 60, APPENDIX A:

Method 25 - Determination of Total Gaseous Nonmethane Organic Emissions as Carbon and its submethods.

e. 40 CFR 51, APPENDIX M:

Methods 204, 204a, 204b, 204c, 204d, 204e and 204f - Criteria For and Verification of a Permanent or Temporary Total Enclosure.

505.3 Other Test Methods (Not EPA):

a. California's Bay Area Air Quality Management District (BAAQMD) Method 31 (April 15, 1992; Amended May 18, 2005), "Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings".

b. California's South Coast Air Quality Management District (SCAQMD) Method 313-91 (April, 1997).

c. ASTM D1613-06(2012): Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products.

d. California's South Coast Air Quality Management District (SCAQMD) "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray-Guns"(September 26, 2002).

e. California's South Coast Air Quality Management District (SCAQMD) "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (May 24, 1989)

MARICOPA COUNTY BOARD OF HEALTH MEETING

Wednesday, September 10, 2014

4041 N. Central Avenue

Phoenix, Arizona 85012

Training Room, 14th Floor

[Return to List Attachments](#)

CALL TO ORDER AND ROLL CALL:

-Mr. Andrew Ingram, President

Mr. Ingram called the meeting to order at 3:05 p.m.

ROLL CALL:

Members Present:

Andrew Ingram

Don Cassano

Dr. Bryant Boyack

Francisca Montoya

Maricopa County Supervisor Kunasek, District 1

Kip Steill

Coleen Wheeler

Debra Baldauff

Members Excused:

Nedra Halley

Michael Mills, MD, MPH

Bob England, MD, MPH

CALL TO THE PUBLIC:

Mr. Ingram requested that anyone from the public that is present at the meeting today who would like an opportunity to speak, to fill out a Speaker Request Form. The form must be filled out prior to addressing the Board of Health. The Board of Health cannot take action on but can only discuss questions from the public under the Call to the Public section.

ACTION/DISCUSSION ITEMS:

1. Fee Waivers

-Ms. Jeannie Taylor

Ms. Taylor presented 32 fee waiver applications to the Board of Health. Mr. Steill raised concerns about the Peoria Unified School District receiving fee waivers because he didn't think the School District met the qualifications as a non-profit 501 (c) 3 organization. Ms. Taylor advised the food permits were associated with DECCA and Skillsusa-Vica both of which are under the 501 (c) 3 classifications. Under this scenario, the Peoria School District is eligible. Since the School District qualifies under this condition, there were no further objections raised.

Mr. Kip Steill made the motion to approve all of the 32 fee waivers. Mr. Don Cassano seconded the motion. The motion passed unanimously.

2. Approve for Expedited Process the revisions to Air Quality

- Ms. Kathleen Sommer

Department rulemaking AQ-2013-002-Rule 345 (Vehicle and Mobile Equipment Coating):

Ms. Sommer briefly reviewed some of the restriction changes and modifications to the current rulemaking AQ-2013-002-Rule 345 related to the Vehicle and Mobile Equipment Coating. She explained that the primary reasons for the revisions were to allow use of spray guns for industry practices and to delete obsolete reporting requirements.

Mr. Kip Steill made the motion to approve the revisions to Air Quality Department rulemaking AZ-2013-002-Rule 345 (Vehicle and Mobile Equipment Coating). Ms. Debra Baldauff seconded the motion and the motion passed unanimously.

Adjournment

The next meeting is scheduled for Monday, October 27, 2014 at 3:00 p.m. and will be held at the regular meeting location (301 W. Jefferson Street, 10th Floor, Phoenix, AZ 85003). However, the Finance Committee will meet prior to the Board at 2:30 p.m.

There being no further business, Ms. Francisca Montoya motioned to adjourn the meeting. Ms. Colleen Wheeler seconded the motion. The motion passed unanimously. The meeting was adjourned at 3:17 p.m.

Stakeholder Comment

From: Marie Clarke [mailto:mclarke@paint.org]
Sent: Thursday, February 27, 2014 10:50 AM
To: Kathleen Sommer - AQDX
Cc: Stephen Wieroniey
Subject: ACA Comments on Rule 345

Dear Ms. Sommer,

ACA would like to submit the attached comments on behalf of our Automotive Refinish Coalition. These comments are in response to the proposed rule revisions for AQ-2013-002Rule 345: Vehicle and Mobile Equipment Coating. We hope these comments are useful and we welcome the opportunity to discuss our concerns with you and other stakeholders as the rulemaking process gets underway. Feel free to contact ACA with any questions.

Sincerely,

Marie

Marie Clarke
Counsel, Government Affairs Division
American Coatings Association
1500 Rhode Island Avenue, NW
Washington, DC 20005
Phone: (202) 462-6272
mclarke@paint.org

PDF Attachment



AmericanCoatings
ASSOCIATION

February 27, 2014

Kathleen Sommer
Maricopa County Air Quality Department
(602) 506-6706
kathleensommer@mail.maricopa.gov

**RE: Proposed Revisions to AQ-2013-002-Rule 345: Vehicle and Mobile
Equipment Coating**

Dear Ms. Sommer:

The American Coatings Association's (ACA)¹ Automotive Refinish Coalition submits the following comments on the proposed revisions to AQ-2013-002-Rule 345: Vehicle and Mobile Equipment Coating.

We understand and appreciate the need to periodically update rules and regulations to address stakeholder concerns and remain current. However, we believe that many of the proposed changes to Rule 345 will only complicate compliance for manufacturers and end-users in Maricopa. We are most concerned with the definition changes proposed in Section 200. Renaming coating categories will add no measurable benefit and will further separate the Maricopa County Rule from other auto refinish rules used nationwide. These changes will not only burden manufacturers but the County as well, as specific guidance will need to be created to assist industry in understanding and complying with these new coating categories. Consistency and uniformity among the coating category definitions reduces compliance burdens on both the regulated community and regulatory authorities alike. Therefore, ACA urges Maricopa County to maintain category definitions that are consistent with the National Auto Refinish Rule.

“Pretreatment Wash Primers”

The proposed rule renames “Pretreatment Wash Primers” category “Cleaners”. Changing “pretreatment wash primers” to “cleaners” misrepresents the function of the product in the auto refinish area. Pretreatment Wash Primers are products that are applied to the surface to resist corrosion and promote the adhesion of additional coatings. The term “cleaner” typically refers to products that are applied and removed from the surface. Surface cleaners do not contain acid because acid would contaminate the painted substrate and destroy old finish.

¹ The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

ACA suggests maintaining the “Pretreatment Wash Primers” category for coatings applied to metal as a treatment to prevent rust and promote adhesion and using the “Surface Preparation and Surface Cleaning Fluids” category for non-coatings cleaning products used on surfaces. For consistency and for the reasons articulated above, section 502.5 should remain “Pretreatment Wash Primers”.

“Cleaner” and “Cleaning Material”

The proposed rule creates the “Cleaner” and “Cleaning Material” categories. Creating these categories adds confusion, without a measurable benefit. ACA suggests eliminating the cleaner and cleaning material definitions and defining “Cleaning Solvent” to address non-coating cleaning products for equipment. The “Surface Preparation and Surface Cleaning Fluids” category should remain for non-coatings cleaning products used on surfaces. ACA suggest defining “Cleaning Solvent” as follows”

“A solvent used to remove contaminants and other materials, such as dirt, grease, or oil from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers.”

“Primer Sealer” and “Primer Surfacer”

The proposed rule eliminates the “Primer Sealer” and the “Primer Surfacer” categories and creates a “Primer” category with a lower VOC limit and creates a “Surfacer” category with the existing VOC limit. This change is problematic because the “Primer Sealer” category is unique. The primer sealer category referenced in the current rule is set at a lower VOC limit due to the lower pigment to binder ratio used in these coatings. These products need less VOC than their “Primer Surfacer” counterparts. Primer surfacers are applied directly to metal surfaces while primer sealers are applied to a previously applied top coat. Because primer surfacers are applied directly to the base they have high levels of anticorrosive pigments and need to be thicker to adequately protect the base metal. To accomplish the intended purpose these coatings must have a higher VOC limit.

Therefore, ACA suggests that the final rule remain consistent with the national auto refinish rule and the current Maricopa County definitions and VOC limits of Primer Sealer: 4.6 lb/gal and Primer Surfacer 4.8 lb/gal.

ACA appreciates the opportunity to comment on the proposed changes to rule 345. We hope our comments are helpful to the Maricopa County Air Quality Department as it reviews this rule and prepares for the upcoming stakeholder workshop. Please contact ACA with any additional questions.

Respectfully Submitted,

Marie Clarke, Esq.
Counsel, Government Affairs

Stephen Wieroniey
Specialist, Health, Safety and
Environmental Affairs

MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX
Sent: Tuesday, March 04, 2014 2:15 PM
To: mclarke@paint.org
Cc: Johanna Kuspert - AQDX
Subject: ACA Comments on Rule 345

Dear Ms. Clark,

We have received your comments and will review this information about the proposed definitions in the Maricopa County draft Rule 345: Vehicle and Mobile Equipment Coating. We will keep you informed and will get back to you to let you know how we will proceed further.

Thank you again for your time and review of this rule.

Kathy

Kathleen Sommer M.P.H.
Planner II
Maricopa County Air Quality Department
1001 North Central Avenue, suite 125
Phoenix, Arizona 85004
Located at the Central Ave. & Roosevelt METRO stop
(602) 506-6706
kathleensommer@mail.maricopa.gov

Stakeholder Comment

Communication: Conference Call 07/09/2014 - Discussion RE: Definition of solvent as used in current revision of draft rule 345. (American Coatings Association, Wieroniewy, S.; Clarke, M., July 9, 2014)

Stakeholder Comment

From: Stephen Wieroniewy [mailto:swieroniewy@paint.org]
Sent: Wednesday, July 09, 2014 3:14 PM
To: Kathleen Sommer - AQDX
Cc: Marie Clarke
Subject: AQ-2013-002-Rule 345 Revision

Kathleen,

As we discussed on the phone, the definition of 'solvent' used in the current revisions of rule 345 does not align with the usage of the term 'solvent' in the rule. Notably in the definition of additional terms, however there are several more uses that don't fit the new definition.

ACA reviewed other auto refinish regulations. The term 'solvent' is not defined by most rules, mainly because it is used broadly through many auto refinish rules. If Maricopa County is interested in using a specific term for solvents used to clean automobiles prior to applying a coating, ACA request that the department consider the term 'Cleaning Solvent.' I have attached our comments from February 2014 which explain this issue in more detail.

Please feel free to contact Marie or me if you have any further questions.

Regards,

Stephen

Stephen Wieroniewy ■ American Coatings Association ■ Specialist; Health, Safety and Environmental Affairs
202-719-3687 | 202-263-1102 (fax) | swieroniewy@paint.org | www.paint.org
1500 Rhode Island Ave. NW ■ Washington, DC 20005
Coatings protect. Coatings preserve. Coatings provide.

MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX [mailto:KathleenSommer@mail.maricopa.gov]
Sent: Wednesday, July 09, 2014 6:42 PM
To: Marie Clarke
Subject: FW: Phoenix, Maricopa County Rule 345

Hello Marie,

It was good to hear from you that the American Coatings Association (ACA) is reviewing the revision of the Maricopa County Rule 345 (Motor Vehicle and Mobile Equipment Coating). The draft rule revision is posted on the county website as we discussed. Unfortunately, in the posting of the rule, Table 345-1 and the formula in Section 503.1 were posted incorrectly. I have attached a "clean version" of the rule with these items corrected because I was concerned it would create confusion with your members in their review of these revisions. I apologize for getting this corrected rule to you in such a short time-frame but we just discovered the error.

There will be plenty of time to comment on the rule contents although I do not know at this time if there will be another workshop. We are looking for comments from this public workshop and there will also be a 30 day comment period after the rule is posted by the Secretary of State. I expect the Secretary of State posting to be mid to late August so the comment period will be 30 days after that posting.

We are looking forward to comments from your staff and members.

Kathy

Kathleen Sommer M.P.H.
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Located at the Central Ave. & Roosevelt METRO stop
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kathleensommer@mail.maricopa.gov
CleanAirMakeMore.com

Stakeholder Comment

From: Marie Clarke [mailto:mclarke@paint.org]
Sent: Thursday, July 10, 2014 1:10 PM
To: Kathleen Sommer - AQDX
Cc: Stephen Wieroniey
Subject: RE: Phoenix, Maricopa County Rule 345

Kathy,

Thank you for the updated draft rule. I wanted to share a two more comments, and one question, that we received from a member.

1. Definition 233 states Primer Surfacer are applied directly to metal surfaces. This I not correct, usually a corrosion resistant primer or a pretreatment coating is applied before the primer surfacer, though sometimes unique chemistry primer surfacers do go direct to metal.
2. Definition 234 for Reducer should say "coating" instead of "enamels"
3. Does the Definition in 503.2 Single Stage VOC Content apply to table 345-1? Should the naming be consistent? Should 503.2 be name VOC as applied, minus exempt compounds or something similar? (Single Stage term usually applies to a color topcoat that does not require a subsequent clear coat application.)

I hope the workshop went well today, we look forward to attending in the future as the rulemaking progresses. In the meantime, please let Stephen or I know if we can be of assistance.

Sincerely,

Marie
Marie Clarke ■ American Coatings Association ■ Counsel, Government Affairs
202-719-3682 | 202-462-8549 fax | mclarke@paint.org | www.paint.org

Comments and Responses During Formal Rulemaking Process

Stakeholder Comment

From: Marvin Burns [mailto:MBurns@Devilbissar.com]
Sent: Wednesday, October 08, 2014 12:29 PM
To: Kathleen Sommer - AQDX
Cc: William Hofert
Subject: FW: Maricopa County Air Quality Department: Draft Rule 345 (Vehicle And Mobile Equipment Coating) Next Steps

Kathleen,

I am the Atomization Engineering manager for DeVilbiss Automotive Refinishing. We provide finishing equipment into the automotive refinishing industry. We have worked extensively with SCAQMD over the years. We were the first spray gun manufacturer to get a non HVLP spray gun approved by SCAQMD.

I was forwarded a copy of the proposed draft of Rule 345, and have a couple of questions.

Section 501.2 states:

Spray-gun transfer efficiency documentation: Manufacturer's certified spray-gun transfer efficiency documentation shall be made available to the Control Officer or representative of such, without delay during normal business hours.

- * What do you mean by "certified spray-gun transfer efficiency documentation? What type of documentation do you want?
- * For each non HVLP spray gun, we provide a certificate showing all the air quality districts that we have received written approval from (see attached). This information is also available on our web site (<http://www.autorefinishdevilbiss.com/support/compliance-information/tekna-pro-prolite-approval-letters.aspx>) with links to the individual approval letters. Is this sufficient?
- * Currently SCAQMD and EPA only require transfer efficiency testing of non HVLP guns and comparing the non HVLP gun to the leading two HVLP guns. They do not require any transfer efficiency testing for HVLP spray guns. Is this documentation required for HVLP spray guns? If so, what type of transfer efficiency documentation do you expect for HVLP spray guns?

Section 502.4 states:

Spray-Gun Tip Pressure Measurement: The measurement required in Section 303.1(a)(1) of this rule and shall be performed with the instructions supplied by the manufacturer for that purpose. The measurement shall be made:

- a) Dynamically at the center of the air cap.
- b) At the air horns, with the spray configured to a fan diameter of eight to ten inches on a flat surface being coated.
- c) The axis of the fan pattern shall be perpendicular to this surface.
 - * Why is the spray configured to a fan diameter of 8-10" for HVLP guns?
 - * What happens if the HVLP gun is a touchup gun and does not produce a pattern size of 8-10"?
 - * Is there a recommended target distance that should be used to get the pattern size of 8-10"?

I would recommend simply checking the air cap pressures with the pattern control valve wide open. This is where the majority of the painters will spray, and it simplifies checking air cap pressures. I am not aware of any other rules specifying that HVLP cap pressures checked at a pattern size of 8-10".

If you have any questions, or need any additional information, please do not hesitate to contact me.

Regards,

Marvin Burns
R & D Manager - Atomization Americas
DeVilbiss Automotive Refinishing

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11360 South Airfield Road | Swanton | Ohio | 43558-7900

MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX
Sent: Friday, October 10, 2014 4:07 PM
To: Marvin Burns
Cc: Johanna Kuspert - AQDX
Subject: RE: Maricopa County Air Quality Department: Draft Rule 345 (Vehicle And Mobile Equipment Coating) Next Steps

Hello Mr. Burns,

We have received your comments on Rule 345: (Vehicle and Mobile Equipment Coating) concerning the proposed rule requirements for spray-gun transfer efficiency documentation and efficiency testing. After reviewing these comments and consulting with department staff, our formal responses will be published in the Draft Notice of Final Rulemaking (DNFR) after the close of the comment period on November 3, 2014. I will contact you sooner if I need to clarify any of these questions before that time.

Thank you for taking the time to participate in the air quality rule making process.

Kathy

Kathleen Sommer M.P.H.
Planner
Maricopa County Air Quality Department
1001 North Central Avenue, suite 125
Phoenix, Arizona 85004
Located at the Central Ave. & Roosevelt METRO stop
(602) 506-6706
kathleensommer@mail.maricopa.gov
CleanAirMakeMore.com

Stakeholder Comment

From: brian@sinthium.com [<mailto:brian@sinthium.com>]
Sent: Wednesday, October 08, 2014 11:24 AM
To: Kathleen Sommer - AQDX
Subject: Comments

Kathleen,

In regards to our previous conversation about rule 345 specifically the automated gun cleaner and manual cleaning. I understand why it was written as such and with the advent of water Born products makes sense. However, in a solvent based system the logic and thought process is flawed.

Using a PPS or cup liner system and manually cleaning spray guns is a standard and compilable method, however with the way the rule is worded I must also use an automated gun cleaner. This not only increases labor and expense for the shop owners.

Given that, I do primarily custom work, I would have to purchase two machines, one for clear guns and one for metallic in order to not contaminate the clear. Manual cleaning is the best process and incurs no additional cost or waste. In essence, what is starting is that once I have cleaned the equipment, I must clean it again.

Thank you for your time regarding this matter.

Thanks,

Brian Horstmann
Sinthium Inc.
www.sinthium.com
623-218-6244

MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX
Sent: Friday, October 10, 2014 4:12 PM
To: brian@sinthium.com
Cc: Johanna Kuspert - AQDX

Subject: Maricopa County Rule 345 Comments

Hello Brian,

We have received your comments on Rule 345: (Vehicle and Mobile Equipment Coating) concerning your specialty shop cleaning spray-guns after using both clear and metallic paints.

After reviewing these comments and consulting with department staff, our formal responses will be published in the Draft Notice of Final Rulemaking (DNFR) after the close of the comment period on November 3, 2014.

I will contact you sooner if I need to clarify any of these questions before that time.

Thank you for taking the time to participate in the air quality rule making process.

Kathy

Kathleen Sommer M.P.H.
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Stakeholder Comment

From: Marie Clarke, Esq. Counsel, Government Affairs, American Coatings Association (ACA)
Sent: November 3, 2014
To: Kathleen Sommer, Maricopa County Air Quality Department, (602) 506-6706, kathleensommer@mail.maricopa.gov
cc: Stephen Wieronicy

Subject: RE: Proposed Revisions to AQ-2013-002-Rule 345: Vehicle and Mobile Equipment Coating

Dear Ms. Sommer:

The American Coatings Association's (ACA) Automotive Refinish Coalition submits the following comments on the proposed revisions to AQ-2013-002-Rule 345: Vehicle and Mobile Equipment Coating. The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate

and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

ACA appreciates the opportunity to provide these comments to the Maricopa County Air Quality Department (Department). Although the new proposal addresses many of our previous concerns there are still several proposed changes to Rule 345 that will complicate compliance for manufacturers and end-users in Maricopa. Our principal concern is the removal of the "VOC Multi" calculation. The "VOC Multi" calculation is included in the National Rule and removing the calculation from rule 345 will burden both manufacturers and downstream users of auto refinish coatings as it adds confusion and uncertainty to the VOC calculation process. Consistency and uniformity amongst the State rules and the national rule reduces compliance burdens on both the regulated community and regulatory authorities alike. For this reason, ACA urges Maricopa County to maintain the "VOC multi" calculation.

Surface Preparations or Solvent Cleaners (Section 301; Table 345-1)

The proposed rule lists the VOC limit for "Surface preparations or Solvent cleaners in Tables 345-1 and 345-2 as 200 grams VOC per liter and 1.4 Pounds VOC per gal. These are not equivalent (200 gm/l converts to 1.7 lb/gal). ACA request that these tables be updated with the proper conversion ratio.

Spray-Gun Cleaning (Section 303.2)

With new technology in the development of spray equipment, there are guns that can be cleaned without using a gun cleaner and with less than or similar amounts of solvent as a pre-clean process. This new gun technology is easier to clean, but due to its design a gun cleaner will destroy the internal functioning parts. To restrict spray gun cleaning to only using a gun cleaner will ban the use of this technology, which can use less hazardous chemicals during its function and cleaning. ACA requests that the Department update the proposed regulations to allow for the use of this new gun technology.

VOC Calculations (Section 503)

The proposed changes to the rule include elimination of the "VOC multi" (Figure 1) and the addition of the following statement: "For multiple coating processes, calculate each VOC process as applied and sum all coatings to calculate total VOC.

"Figure 1:

Missing the picture of the calculation

This proposed revision does not clearly indicate how the VOC for multi stage process should be calculated. The language is vague and open for interpretation. ACA strongly opposes the elimination of the "VOC multi" calculation.

Keeping the "VOC multi" calculation will keep the regulations consistent with the calculation allowed in the EPA national rule. ACA does not support the introduction of a new alternate "averaging" or "summing" calculation.

This only adds complexity and confusion for coating manufacturers without providing a clear benefit. ACA respectfully request that the Department keep the current "VOC multi" calculation.

If the Maricopa County Air Quality Department does not want to align with the national rule, ACA would also support a move consistent with the CARB VOC rule that provides VOC limits for each ready-for-use product (i.e.: 420 g/l for basecoats, 250 g/liter for clearcoats,etc.) and eliminates any requirement for VOC averaging calculations for two-stage and multi-stage.

ACA appreciates the opportunity to comment on the proposed changes to rule 345. We hope our comments are helpful to the Maricopa County Air Quality Department as it reviews this rule and prepares for the upcoming stakeholder workshop. Please contact ACA with any questions.

Respectfully Submitted,

Marie Clarke, Esq.
Counsel, Government Affairs Specialist,
Stephen Wieroniey
Health, Safety and
Environmental Affairs
** Sent via email **

From: Kathleen Sommer - AQDX
Sent: Monday, November 03, 2014 1:34 PM
To: Marie Clarke
Cc: Johanna Kuspert - AQDX
Subject: RE: ACA Comments on Rule 345

Thank you Marie. I will let you know if I have questions.

Kathy
Kathleen Sommer M.P.H.
Planner II
Maricopa County Air Quality Department
(602) 506-6706
kathleensommer@mail.maricopa.gov
CleanAirMakeMore.com

Comments Received 30-Days before the Board of Supervisors' Public Hearing

Stakeholder Comment

From: Marie Clarke <mclarke@paint.org>
Sent: Thursday, January 29, 2015 11:26 AM
To: Kathleen Sommer - AQDX
Cc: Johanna Kuspert - AQDX; Stephen Wieronicy
Subject: RE: Maricopa County Response to Comments on Rule 345

Kathleen,

Thank you for your email and for the update. We do have some questions:

- 1.) Is Maricopa County's intent to set the Two Stage limit to be an average of ready to spray VOC of the two layers (basecoat & clearcoat), without doubling the clear VOC contribution or would you apply the proposed limit to each layer separately?
 - 2.) Do we have an expected date of passage of the rule 345 revision & then enforcement? Will Maricopa be allowing a period to transition (including consumption of stock on hand at body shops and also allow sale of product at the distributors)?
- Thanks in advance. Sincerely,

Marie

Marie Clarke • American Coatings Association • Counsel, Government Affairs 202-719-3682 office I 202-870-4842 cell I
mclarke@paint.org I www.paint.org 1500 Rhode Island Ave. NW • Washington, DC 20005

Coatings protect. Coatings preserve. Coatings provide.

MCAQD Response to Stakeholder Comment

February 10, 2015

Marie Clarke, Esq.
Counsel, Government Affairs
American Coatings Association
1500 Rhode Island Avenue N.W.
Washington DC 20005

Hello Marie.

It is good to hear from you. The answers to the questions from your January 29, 2015 e-mail are described below.

Question (1)

Is Maricopa County's intent to set the Two Stage limit to be an average of ready to spray VOC of the two layers (basecoat & clearcoat), without doubling the clear VOC contribution or would you apply the proposed limit to each layer separately?

Response (1)

The "VOC multi" equation allows for calculating VOC when applying more than one coat of paint to a vehicle. The department is proposing to retain the "VOC multi" equation; however, the department is proposing to remove the automatic doubling of the clearcoat component in the calculation. If a facility applies only one coat of paint to a vehicle, then the facility would only have to use this equation once. If a facility applies more than one coat of paint to a vehicle, then a facility would have to use this equation for each coat applied.

Even though the Maricopa County terms changed in this revision of the Rule 345 tables, the VOC limits have not changed in this rulemaking. The department retained the existing VOC limits; such VOC limits remain consistent with the VOC limits listed in the November 14, 2013 EPA Background Document: True Minor Source Auto Body Repair and Miscellaneous Surface Coating Operations General Permit and Permit by Rule.

Question (2)

Do we have an expected date of passage of the rule 345 revision & then enforcement? Will Maricopa be allowing a period to transition (including consumption of stock on hand at body shops and also allow sale of product at the distributors)?

Response (2)

The department is requesting that this revision of Rule 345 be presented to the Maricopa County Board of Supervisors for final approval in April 2015. The rule and its provisions will become effective immediately. As with any rulemaking, consideration is given to sources to switch from current rule practices to revised rule practices.

Let me know if you need more information about this rule revision. Thank you again for participating in the Maricopa County Air Quality rule writing process.

Kathleen Sommer M.P.H.

Planner II

Maricopa County Air Quality Department

1001 North Central Avenue, suite 125

Phoenix, Arizona 85004

Located at the Central Ave. & Roosevelt METRO stop

(602) 506-6706

kathleensommer@mail.maricopa.gov

Stakeholder Comment

From: Stephen Wieroniec [<mailto:swieroniec@paint.org>]
Sent: Wednesday, February 18, 2015 8:51 AM
To: Kathleen Sommer - AQDX
Cc: Marie Clarke
Subject: Rule 345

Hello Kathleen,

I work at ACA with Marie Clarke. We are currently reviewing your latest letter with our Auto Refinish manufacturers. We understand that you are planning to finalize the rule by April, however we are hoping you will accommodate a few more comments from our members. We are working as fast as we can to compile their concerns. Do you have a timeframe as for when you would need a response from ACA?

Thanks in Advance.

Best,
Stephen

Stephen Wieroniec ■ American Coatings Association ■ Manager, Occupational Health and Product Safety
202-719-3687 | 202-263-1102 (fax) | swieroniec@paint.org | www.paint.org
1500 Rhode Island Ave. NW ■ Washington, DC 20005
Coatings protect. Coatings preserve. Coatings provide.

From: Marie Clarke [<mailto:mclarke@paint.org>]
Sent: Monday, February 23, 2015 2:49 PM
To: Kathleen Sommer - AQDX
Cc: Stephen Wieroniec
Subject: RE: Rule 345

Kathleen,

I hope this email finds you well. We appreciate all the feedback you have provided with respect to our comments and additional questions. We have read the staff report and the updated proposed rule but we were hoping we might submit some concerns in advance of the April 8 public hearing. Please let us know if you have any questions or if you would like to set up a time to discuss these comments. Thanks in advance for your attention to this matter.

Sincerely,
Marie

Marie Clarke ■ American Coatings Association ■ Counsel, Government Affairs
202-719-3682 office | 202-870-4842 cell | mclarke@paint.org | www.paint.org
1500 Rhode Island Ave. NW ■ Washington, DC 20005
Coatings protect. Coatings preserve. Coatings provide.



AmericanCoatings
ASSOCIATION

February 23, 2015

Kathleen Sommer
Maricopa County Air Quality Department
(602) 506-6706
kathleensommer@mail.maricopa.gov

RE: Proposed Revisions to AQ-2013-002-Rule 345: Vehicle and Mobile Equipment Coating

Dear Ms. Sommer:

The American Coatings Association's (ACA)¹ Automotive Refinish Coalition submits the following comments on the proposed revisions to AQ-2013-002-Rule 345: Vehicle and Mobile Equipment Coating.

Although the new proposal rule addresses many of our previous concerns there are still several changes to Rule 345 that will complicate compliance for manufacturers and end-users in Maricopa.

DEFINITIONS

204: CLEANER

Maricopa has re-defined "pretreatment primer" as "cleaner", and removed a definition and VOC limits for "pretreatment" from the rule. We believe this will be very confusing to end users, distributors and manufacturers. The definition of "cleaner" is not consistent with how the coating is defined nationally, even in reduced VOC Rules in California and Ozone Transport Commission (OTC) region. ACA suggests that the definition for "pretreatment," and the listing of "pretreatment" be retained in the rule, or that the definition be re-written to include the older terminology:

"CLEANER – A cleaner or pretreatment coating that contains a minimum of 0.5 percent acid by weight that is applied directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent coatings."

¹ The American Coatings Association (ACA) is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

205: CLEANING MATERIAL; 234: SURFACE PREPARATION AND SURFACE CLEANING FLUIDS; 305: SURFACE PREPARATION AND SURFACE CLEANING AND SURFACE WASHING FLUIDS

Maricopa County has separated “surface preparation” and “surface cleaning” from “cleaning material,” then goes on to establish a limit that does not clearly include each of the defined terms, and introduces yet another term, “surface washing fluids”, which is not previously defined. Based on this language ACA anticipates confusion in the field, which will be further complicated by the re-definition of “pretreatment” as “cleaner”. In order to address this confusion, we propose Maricopa County define 205 as follows:

“205: SURFACE PREPARATION, CLEANING AND WASHING MATERIALS – any cleaning material used on substrates or equipment or both. ”

Further, we propose that Section 305 be expressed as:

305: SURFACE PREPARATION, CLEANING AND WASHING MATERIALS

- a. 305.1 – as written in the proposed draft
- b. 305.2 – as written in the proposed draft
- c. 305.3 – as written in the proposed draft

MULTI-STAGE CALCULATION

ACA would like to clarify the proposed change on the Multi-Stage calculation. We understand the following limits:

Clearcoat (CC) with a ready to spray VOC of 4.2 lbs./gal
Basecoat (BC) with a ready to spray VOC of 6.3 lbs./gal

Using the present rule calculation with a limit of 5.0:
 $(BC + (2 \times CC)) / 3 = (6.3 + (2 \times 4.2)) / 3 = 4.9$ compliant

Therefore, with the proposed calculation with a 5.0 limit:
 $(BC + CC) / 2 = (6.3 + 4.2) / 2 = 5.25$ not compliant

To use the same BC, the CC ready to spray VOC must drop to 3.6 lbs./gal or lower. If there is an immediate change in rule enforcement, CC product on the shop floor is immediately non-compliant. This change to product compliance should include a transition period, otherwise it will force jobbers and suppliers to pack non-compliant products and ship out of the county. This process requires additional labor, shipping & truck emissions.

ACA proposes a simple solution based on the California Air Resource Board (CARB) Suggested Control Measure (SCM). The CARB SCM model rule based solution would include separate limits for each layer: basecoat & midcoat at 3.5 lbs./gal and CC at 2.1 lbs./gal. This way the customer complies with an established accepted system that is already

available in California, Canada, Maryland and Delaware. This simpler system requires no Multi-Stage calculation at all. Under this solution Maricopa would benefit from a lower VOC profile and less overall emissions.

TRANSITION PERIOD

If Maricopa agrees to the aforementioned CARB SCM BC & CC limits, the industry would need 9-12 months to transition and train painters to use new products and phase out old stock. California air districts and other states typically allow at least a 12 months transition period after passage of a new rule.

If Maricopa cannot accept the CARB SCM proposal, the industry will still need time to phase in the new rule products. We respectfully request a 6-9 month transition period in this case. During this transition period customers would be allowed to consume stock on hand, jobbers would be allowed to sell stock on hand. This transition period would ensure there is no needless waste or costly stock reassignment/shipping.

ACA appreciates the opportunity to comment on the proposed changes to rule 345. We hope our comments are helpful to the Maricopa County Air Quality Department as it reviews this rule and prepares for the upcoming stakeholder workshop. Please contact ACA with any questions.

Respectfully Submitted,



Marie Clarke, Esq.
Counsel, Government Affairs



Stephen Wieroniey
Specialist, Health, Safety and
Environmental Affairs

*** Sent via email ***

MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX
Sent: Thursday, February 26, 2015 4:09 PM
To: Marie Clarke
Cc: Stephen Wieroniewy; Johanna Kuspert – AQDX
Subject: RE: Rule 345

Hello Marie and Stephen,

We have received your comments on Rule 345. The staff is currently reviewing them and will be back to you soon.

Thank you again for participating in the Rule revision process.

Kathleen Sommer M.P.H.
Planner II
Maricopa County Air Quality Department

1001 North Central Avenue, suite 125
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Stakeholder Comment

From: anne.carlton@aps.com[SMTP:ANNE.CARLTON@APS.COM]
Sent: Friday, February 27, 2015 10:40:22 AM
To: Regulatory
Subject: Regulatory Outreach

Auto forwarded by a Rule
Citizen Comments
Issue: AQ-2013-002 Rule 345

Citizen's Name: Anne Carlton
Organization: APS
City: Phoenix
Zip: 85004
Phone Number: 480-322-9313
Phone Type: mobile
Email: anne.carlton@aps.com
Does citizen want to be contacted: no
Comment is regarding: other

Comments:

Table 345-1, 345-2, surface preparation or solvent cleaners have a VOC limit of 200g/l and 1.4lb/gal. Using appropriate conversion factors, these values are not equal. As stated in section 301.5 of the rule, compliance will be determine based on VOC content in g/l which is the higher of the two values. This could be confusing for the average user.

Time of Request: 2/27/2015 10:40:22 AM

Stakeholder Comment

From: anne.carlton@aps.com[SMTP:ANNE.CARLTON@APS.COM]
Sent: Tuesday, March 03, 2015 9:57:04 AM
To: Regulatory
Subject: Regulatory Outreach

Auto forwarded by a Rule
Citizen Comments
Issue: AQ-2013-002 Rule 345
Citizen's Name: Anne Carlton
Organization: APS
City: Phoenix
Zip: 85004

Phone Number: 480-322-9313

Phone Type: mobile

Email: anne.carlton@aps.com

Does citizen want to be contacted: yes

Comment is regarding: other

Comments:

In proposed Rule 345, Section 501.2 it is stated that, "Manufacture's certified spray gun transfer efficiency documentation shall be made available to the CO or representative of such, without delay during normal business hours." In most cases, the spray guns utilized at our facility are stamped HVLP, indicating that the spray gun is high volume, low pressure. In anticipation of this proposed rule becoming final we have been trying to obtain the documentation required under Section 501.2. With some of the older guns, we have not been successful as of yet Was the intention of the rule to require actual documentation for all spray guns, or only those not marked HVLP?

Time of Request: 3/3/2015 9:57:04 AM

MCAQD Response to Stakeholder Comment

From: Johanna Kuspert - AQDX

Sent: Thursday, March 05, 2015 10:44 AM

To: 'anne.carlton@aps.com'

Cc: Corky Martinkovic - AQDX

Subject: AQ-2013-002 Rule 345: Comments And Responses

Anne:

Thanks for your comments. If you have any questions about our responses (below), please let me know.

· In the proposed Rule 345, Section 501.2, it is stated that, "Manufacture's certified spray-gun transfer efficiency documentation shall be made available to the Control Officer or representative of such without delay during normal business hours." In most cases, spray-guns utilized at our facility are stamped "HVLP", indicating that the spray-gun is high volume, low pressure. In anticipation of this propose rule becoming final, we have been trying to obtain the documentation required under Section 501.2. With some of the older guns, we have not been successful as of yet. Was the intention of the rule to require actual documentation for all spray-guns or only those marked "HVLP"? Documentation would be needed if using an alternative application method – not if using a spray-gun stamped "HVLP".

· Tables 345-1 and 345-2 – surface preparation or solvent cleaners have a VOC limit of 200g/l and 1.4 lb/gal. Using appropriate conversion factors, these values are not equal. As stated in Section 301.5 of the rule, compliance will be determined based on VOC content in g/l which is the higher of the two values. This could be confusing to the average user. In the draft rule attached to the Report to the Board of Supervisors (posted on the EROP website), "200 g/l" has been changed to "168 g/l"; 1.4 lb/gal has remained unchanged.

Johanna M. Kuspert

Maricopa County Air Quality Department - Planner

1001 North Central Avenue, Suite 125

Phoenix, Arizona 85004

602-506-6710

Stakeholder Comment

From: Koss, Mike [<mailto:mkoss@ppg.com>]

Sent: Friday, March 06, 2015 1:32 PM

To: Kathleen Sommer - AQDX

Subject: Rule 345 update

Ms. Sommer,

I am a member of the ACA Refinish committee and have been following your communications with Marie Clark on the update to Rule 345 due in the coming months. I have a few concerns about the proposed change to the Multi-Stage (basecoat/clearcoat) calculation.

From a technology perspective, I do not believe it will be difficult to offer products that meet the proposed change in the Multi-Stage calculation. However, I must confess I am somewhat surprised Maricopa County is considering writing a unique calculation, not found anywhere in the US & Canada. I was expecting an update similar to what we have seen the past few years in the 14 most populous California air districts, Maryland, Delaware and Canada with text based on the 2005 CARB SCM. If attempting to simplify the rule with an easier calculation was the primary goal, I would have thought the CARB SCM method of setting separate limits for basecoat & clearcoat layers would have been the most straightforward approach.

Technologies to meet the CARB SCM 3.5 lbs./gal limit for basecoats and the 2.1 lbs./gal limit for clearcoats have been successfully used to meet rule requirements going back to 2008. Offering lower VOC emissions with compliant products has been well received by the auto refinish industry in those regions and even used by shops where national rule limits are still applied. I believe waterborne basecoats are used

in some shops in your county. It would have been a relatively simple substitution if that was the route you selected. *However, with any rule limit change a transition period is necessary to adapt to required technologies.*

And that is where my major concerns are raised. The rule change you propose will alter the allowed product mix at body shops. Basecoat/clearcoat product combinations compliant with your present rule will not be complaint under your new rule calculation. If shops are using national rule compliant combinations they will have to either choose a lower VOC clearcoat to be used with the high VOC national rule compliant basecoat or a lower VOC basecoat to be used with a higher national rule complaint clearcoat. Of course some shops will already be using lower VOC products like waterborne basecoat and will not be impacted.

The shops that have to transition one or both layers will have stock on hand that will not be compliant if you make the new rule immediately in effect at the date of passage. They will need time to adjust. Hopefully, you will allow time to use up the old rule stock completely, not wastefully dispose as it would be no longer compliant under your proposal. They will need time to train to efficiently use the new rule complaint materials, particularly if they move from national rule compliant borne basecoat to waterborne basecoat. Additionally, local distributors will be left holding products no longer attractive to local customers, they may have to package & ship outside of the county. It would be easier to allow them to sell off stock to local shops to consume as they transition.

I would ask that you reconsider a CARB SCM formatted rule with separate limits for basecoats & clearcoat layers. Even if you are against this proposal I would ask that you allow a transition period to the end of the year allowing local distributors to sell out stock on hand and also allow local body shops to consume those products as they gradually transition to new rule complaint products.

Let me know if you have any questions or offer any comments to my proposals.

Michael W. Koss
Mgr. Regulatory Affairs Automotive Refinish, Fleet & CPC - USCA

PPG Industries Inc.
19699 Progress Dr. / Room 209A
Strongsville, Ohio, USA, 44149
Tel: 440-572-6736
Web: www.ppgrefinish.com



MCAQD Response to Stakeholder Comment

From: Kathleen Sommer - AQDX
Sent: Monday, March 09, 2015 9:54 AM
To: Koss, Mike
Cc: Johanna Kuspert - AQDX
Subject: RE: Rule 345 update

Hello Mike,

We have received your comments on Rule 345. The staff is currently reviewing them and will be back to you soon.

Thank you again for participating in the Rule revision process.

Kathleen Sommer M.P.H.
Planner II
Maricopa County Air Quality Department

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