Enhanced Regulatory Outreach Program
Maricopa County Air Quality Department

Notice of Stakeholder Workshop

Rule 342: Coating Wood Furniture and Fixtures
Date/Time: Thursday, December 17, 2015 at 8:30 a.m.
Location: 1001 North Central Avenue, Floor 5 Classroom*

The Maricopa County Air Quality Department (department) will conduct a Stakeholder Workshop to discuss proposed revisions to **AQ-2015-006-Rule 342: Coating Wood Furniture and Fixtures.** The draft rule to be discussed during this workshop is attached to this announcement.

The department will discuss the proposed revisions since the previous workshop conducted on August 3, 2015. Discussion will include:

- Addition or clarification of text in order to meet the Control Techniques Guideline (CTG) for this rule – "Control Of Volatile Organic Compound Emissions From Wood Furniture Manufacturing Operations", April 1996
  - Section 301, Table 342-2 (Coating Material VOC Limits For Use Of Specified Finishing Systems Of Sealers)
  - Section 302.2(c)(2) (Limitation Of Air-Atomized Spray Other Than Low Pressure)
  - Section 304 (Leak Detection and Repair)
  - Section 404 (Operator Training Requirements)
  - Section 501.4 (Leak Detection Inspection and Repair Records)
  - Section 501.5 (Training Records)
- Clarification of text in:
  - Section 102 (Applicability)-Propose to include Standard Industrial Classification (SIC) codes of industries to which Rule 342 applies.
  - Sections 307, 401.2(a), and Appendix C, Section (d)-Propose to delete compliance deadlines that have passed.
  - Section 502 (Compliance Determination-Test Methods)-Propose to add address where test methods cited in the rule can be obtained.
  - Sections 502, Appendix A, Section (g), and Appendix C, Section (e)-Propose to add title of EPA test methods
- Deletion of the definition of "low pressure spray gun" and addition of definition of "high volume, low pressure spray gun (HVLP)

Additional information is available on the Enhanced Regulatory Outreach Program (EROP) website (www.maricopa.gov/regulations).

The Stakeholder Workshop is an informal meeting for all interested parties, is free of charge and no advance registration or RSVP is required. If you would like to remotely attend this workshop, please log-on to join my meeting from your computer, tablet or smartphone by clicking the link below;

https://global.gotomeeting.com/join/894853765

To participate in the discussion, dial in using your phone. Call +1 (872) 240-3412 using access code: 894-853-765

*If you will be attending this workshop in-person, when you arrive at 1001 North Central Avenue, please check-in in Suite #125 then proceed to the Floor 5 classroom. Thank you for participating in the rulemaking process.

The Maricopa County Air Quality Department (department) is <u>not</u> proposing many of the revisions that the department proposed in draft Rule 342 that was presented at the Stakeholder Workshop conducted on August 3, 2015, but rather the department is proposing limited revisions as follows:

- PROPOSE to change "no person shall" to "an owner or operator shall not" throughout the rule.

- PROPOSE to change "subsection" to "section" throughout the rule.

- PROPOSE in Section 102 (Applicability) to add Table 342-1 (Applicable Standard Industrial Classification (SIC) Codes); table is proposed to include SIC codes and titles of industries to which Rule 342 applies.

- PROPOSE to delete the definition of "low pressure spray gun" and to add the definition of "high volume, low pressure spray gun (HVLP)"; per comment from SATA, the definition of "HVLP" in South Coast Air Quality Management District (SCAQMD) Rule 1151(17) is an established world-wide standard in the coating industry.

- PROPOSE in Section 301 (Limitations-VOC Content) to revise Table 1 to include associated VOC limits for each coating system; to re-number and re-name to Table 342-2 (Coating Material VOC Limits For Use Of Specific Finishing System Of Sealers); VOC limits are from the Control Techniques Guideline (CTG) for this rule, Appendix B(4)(a) – "Control Of Volatile Organic Compound Emissions From Wood Furniture Manufacturing Operations", April 1996.

- PROPOSE in Section 302.2(c)(2) to lower the container capacity for conventional spray guns to no more than 2.0 gallons to meet CTG, Appendix B(5)(g)(ii).

- PROPOSE new Section 304 (Leak Detection And Repair) to meet CTG, Appendix B(5)(c)(1) and propose new Section 501.4 (Leak Detection Inspection And Repair Records) to meet CTG, Appendix B(8)(d)(2).

- PROPOSE new Section 404 (Operator Training Requirements) to meet CTG, Appendix B(5)(b) and propose new Section 501.5 (Training Records) to meet CTG, Appendix B(8)(d)(1).

- PROPOSE in Sections 307, 401.2(a), and Appendix C, Section (d) to delete the compliance deadlines that have passed. Because compliance deadlines are proposed to be deleted, PROPOSE to move text from Section 401.2(b) into the introductory statement for Section 402.

- PROPOSE to delete duplicate Section 307.2(e) (Errata Note 1).

- PROPOSE in Section 502 (Compliance Determination-Test Methods) to add address where test methods cited in the rule can be obtained.

- PROPOSE to add title of EPA test methods in the following sections:
  - Section 502
  - Appendix A, Section g
  - Appendix C, Section e

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

RULE 342
COATING WOOD FURNITURE AND FIXTURES

INDEX [NOT INCLUDED IN THIS DRAFT]

~~Adopted 04/03/96~~
~~Revised 11/20/96~~
~~Revised 09/25/13~~

Adopted 04/03/1996; Revised 11/20/1996; Revised 09/25/2013; and **Revised MM/DD/YYYY**

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

RULE 342
COATING WOOD FURNITURE AND FIXTURES

SECTION 100 – GENERAL

101 **PURPOSE:** To limit emissions of volatile organic compounds from the surface preparation and coating of wood furniture and fixtures.

102 **APPLICABILITY:** The provisions of this rule apply to any facility in Maricopa County applying finishing material to furniture or fixtures made of wood or wood derived material. Simplified provisions of Appendix B in this rule may be used by facilities which agree to a permit limit of less than 10 tons of VOC emissions per year. For sources emitting less than 2 tons of VOC per year, consult ~~subsection 307.2d~~ Section 307.2(d) of this rule. This rule does not apply to the coating of any millwork included under SIC #2431.

Table 342-1 APPLICABLE STANDARD INDUSTRIAL CLASSIFICATION

(SIC) CODES*

Standard Industrial Classification (SIC) code	SIC Title
2434	Wood Kitchen Cabinets
2511	Wood Household Furniture, Except Upholstered
2512	Wood Household Furniture, Upholstered
2517	Wood Television, Radio, Phonograph, and Sewing Machine Cabinets
2519	Household Furniture, Not Elsewhere Classified
2521	Wood Office Furniture
2531	Public Building And Related Furniture
2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers
2599	Furniture and Fixtures, Not Elsewhere Classified
2515	Mattresses, Foundations, and Convertible Beds

*Per the United States Department of Labor Occupational Safety and Health Administration. Web access at https://osha.gov/index.html

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any

inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 **ADHESIVE:** Any substance, usually having a fluid phase during application, used principally to bond two or more surfaces into close proximity with one another.

202 **AEROSOL SPRAY COATING:** A coating which is sold in a hand-held, pressurized, non-refillable container, usually 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.

203 **AIR-ATOMIZED SPRAY (GUN):** Equipment used to apply coatings in which the chief means of atomizing the coating is via pressurized air which also mixes into the cloud of coating particles after expulsion from a spray nozzle.

204 **ARCHITECTURAL COATING:** Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements or to curbs.

205 **BASECOAT:** A coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other high-hiding finishing materials. A basecoated surface usually receives a topcoat also.

206 **CERTIFIED PRODUCT DATA SHEET:** A document, signed by an officer of a coating-supplying operation, stating precisely the maximum VOC content of a particular coating as supplied.

207 **COATING:** Any liquid, fluid, or mastic composition which is converted to a solid (or semi-solid) protective, decorative, or adherent film or deposit after application to a substrate as a thin layer.

208 **CONVENTIONAL AIR-ATOMIZED SPRAY:** Any spray coating method in which the coating is atomized principally by mixing it with compressed air at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization, and which is not used with an electrostatic transfer system. Airless and air-assisted airless spray technologies are not conventional air-atomized spray because the principal means of atomizing the coating is via hydraulic pressure and not by mixing the coating with compressed air.

209 **CUSTOM REPLICA FURNITURE:** Furniture individually produced or repaired after an order has been received from a client specifying a particular style and period, using both the style and the methods of construction, including materials, joinery, and finishes, which are authentic to the period.

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

211 **DILUENT:** For the purpose 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.

212 **ELECTROSTATIC APPLICATION:** A method of applying coating by electrically charging coating droplets or particles causing their deposition onto a substrate by electrostatic attraction.

213 **EMISSION CONTROL SYSTEM (ECS):** A system for reducing emissions of organic compounds, consisting of both collection and control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practice.

214 **FACILITY:** For the purpose of this rule, all the pollutant-emitting activities located on one or more contiguous or adjacent properties, under the control of the same person or persons under common control, and described by one or more of the industrial groupings listed in Section 238 of this rule.

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215 **FAUX FINISH:** A finish intended to simulate a surface other than wood, including, but not limited to, stone, sand, metal, fur and leather.

216 **FINISHING MATERIAL:** A coating other than one designed solely or principally as an adhesive, temporary maskant, and/or preservative. For wood furniture and fixtures, finishing materials include, but are not limited to, topcoats, sealers, primers, stains, basecoats, washcoats, enamels, toners, glazes, and graining inks.

217 **HIGH SOLIDS STAINS:** Stains which are formulated to enhance wood grain and change wood color, but not conceal surface grain. For the purpose of this rule, high solids stains are stains that contain at least 120 grams of solids per liter (1 lb/gal) of stain as applied, and can include wiping stains and glazes.

218 **HIGH-VOLUME, LOW PRESSURE SPRAY GUN (HVLP):** Spray application equipment designed to atomize 100 percent (100%) by air pressure only and is operated between 0.1 and 10 psig (0.7 bar) measured dynamically at the center of the air cap and at the air horns.

~~218~~ **219** **KILOGRAMS VOC PER KILOGRAM OF COATING SOLIDS:** A measurement that is used in this rule to express the VOC content of a coating. For any coating, kilograms VOC per kilogram coating solids is numerically identical to both pounds of VOC per pound of coating solids and to grams VOC per gram of coating solids. Abbreviations used include kg VOC/kg solids (lb VOC/lb solids) or simply kg/kg (lb/lb).

~~219~~ ~~LOW PRESSURE SPRAY GUN: An air-atomized spray gun which by design functions best at tip pressures below 10 psig (0.7 bar) measured according to subsection 502.2 of this rule, and for which the manufacturer makes no public claims that the gun can be used effectively above 12 psig (0.8 bar).~~

220 **LOW SOLIDS STAINS:** Stains which are formulated to enhance wood grain and change wood color, but not conceal surface grain. For the purpose of this rule, low solids stains are stains that contain up to 120 grams of solids per liter (1 lb/gal) of stain as applied, and include sap stain, toner, and non-grain-raising (NGR) stains.

221 **NONPERMANENT FINAL FINISH:** A material such as wax, polish, non-oxidizing oil or similar substance which retains its effect only temporarily and must be periodically reapplied to a surface to maintain or restore the material's intended effect.

222 **POUNDS VOC PER POUND OF COATING SOLIDS:** A measurement of a coating's VOC content identical with kilograms VOC per kilogram of coating solids.

223 **REPAIR COATING:** A coating used to recoat portions of a previously coated product to cover mechanical damage to that previous coating following normal painting operations.

224 **RESTRICTED-USE GUN:** Any spray gun which atomizes coating using compressed air, such that in normal use or a use advertised by the manufacturer or distributor, the tip pressure exceeds 12 psig (0.8 bar) in measurements done pursuant to subsection 502.2. Restricted-use gun also includes, but is not limited to, all conventional air-atomized spray guns.

225 **SEALER OR PRIMER:** A film-building finishing material used to seal the pores of wood or wood-derived material before additional coats of finishing material are applied. Finishing materials used primarily to alter the appearance or color of the substrate, such as stains, washcoats, glazes, inks, and toners, are not sealers.

226 **SINGLE RESIN-LAYER FINISH:** A completed, consumer ready finish, which has received only one application of resin-based coating serving as both sealer and topcoat, and having a total average dry finish thickness from the top of the finish to the surface of the wood-product substrate not exceeding 3 mils (0.076 mm) before sanding, as determined pursuant to the test method in subsection 502.3. If a washcoat is also used, the finish is not a single resin-layer finish.

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227 **STAIN:** A coating, excluding sealers and topcoats, that is formulated to enhance wood grain and change wood color, but not conceal surface grain. Stain includes all high solids stains and all low solids stains.

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

229 **STRIPPING OPERATION:** Any operation in which organic solvent is used to remove coating from a substrate.

230 **TOPCOAT:** The last permanent, functional film-building finishing material applied to a manufactured wood product. When the wood-product substrate is already sealed with sealer, any further coats that build a functional film are topcoats. Finishing materials used primarily to alter the appearance or color of the substrate, such as stains, washcoats, glazes, inks, and toners are not topcoats. A nonpermanent final finish is not a topcoat.

231 **TOUCH UP COATING:** A coating used to cover minor coating imperfections after the main coating operation.

232 **TRANSFER EFFICIENCY:** The ratio of the weight of coating solids deposited on an object to the total weight of coating solids used in a coating application step or series of such steps, expressed as a percentage.

233 **VOC-BORNE COATING:** A coating in which the volatile portion contains, by weight, more VOC than water.

234 **VOC-SOLVENT:** A solvent or diluent, used to solvate, dilute, reduce, thin, clean or strip, in which the weight-percent of VOC exceeds the weight percent of water.

235 **WASHCOAT:** A transparent special purpose coating having a solids content by mass of 12.0 percent or less, and which is used to seal wood-product surfaces for any of the following purposes: to prevent undesired staining, to control penetration of subsequent finishes, to provide a barrier when paper laminates are applied to the wood-product, to seal glazes, and to improve adhesion of a waterborne topcoat.

236 **WOOD FURNITURE AND FIXTURES:** All furnishings made of wood-product that are included in Standard Industrial Classification (SIC) numbers 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, or 2599 as well as wood-product on convertible furniture under SIC number 2515.

237 **WOOD-PRODUCT:** Wood or wood-derived material, such as chipboard, particle board, fiberboard, pressed board, paper, and any other material derived from wood, bamboo, cane, or rattan, that retains some of the physical structure(s) of such original material(s), even if only at a microscopic level.

238 **WORKING DAY:** A day, or any part of a day, in which a facility is engaged in manufacturing.

SECTION 300 – STANDARDS

301 LIMITATIONS – VOC CONTENT:

301.1 ~~No person~~ An owner or operator shall not apply a topcoat or sealer to wood furniture or fixtures unless VOC content is limited to the pounds of VOC per pound of solids (kg VOC/kg solids) or to the grams of VOC per liter:

a. General VOC Limits of Coatings

~~Table 1~~

	~~Column A~~	~~Column B~~

	~~Lb VOC/lb solids~~	~~Grams VOC/liter **~~
~~Topcoat~~	~~1.8~~	~~635~~
~~Sealer~~	~~1.9~~	~~645~~
~~Acid-cured, alkyd amino topcoat~~	~~2.0~~	~~655~~
~~Acid-cured, alkyd amino vinyl sealer~~	~~2.3~~	~~680~~
~~**less non-precursor compounds & water~~		

Table 342-2 COATING MATERIAL VOC LIMITS FOR USE OF SPECIFIC FINISHING SYSTEM OF SEALERS

Finishing System Coating Materials:	**Lb VOC/lb solids As Applied**
Non-Acid Cured Sealer when used with Non-Acid Cured Topcoat	1.9 (Sealer) 1.8 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer and Acid-Cured Alkyd Amino Conversion Varnish Topcoat	2.3 (Sealer) 2.0 (Topcoat)
Non-Acid Cured Sealer when used with Acid-Cured Alkyd Amino Conversion Varnish Topcoat	1.9 (Sealer) 2.0 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer when used with Non-Acid Cured Topcoat	2.3 (Sealer) 1.8 (Topcoat)

b. Option: Lower VOC topcoat and Unlimited Sealer: There is no VOC limit on sealer when the sealer's topcoat does not exceed 0.8 lb VOC/lb (0.8 kg/kg).

c. Coatings with no VOC limits: Stains, washcoats, glazes, toners, inks, and other coatings not specified in this ~~subsection 301.1~~ section of this rule nor in ~~subsection 301.2~~ Section 301.2 of this rule have no VOC limits.

301.2 Strippable Booth Coatings: ~~No person~~ An owner or operator shall not use a strippable booth coating unless, as applied, the coating has either no more than 0.8 lb VOC/lb solids or no more than 3.0 lb/gal (360 g/l) less non-precursor volatile compounds.

301.3 Emission Control System (ECS) as an Alternative Control: A facility may meet the VOC limits of either or both ~~subsections 301.1 and 301.2~~ Sections 301.1 and 301.2 of this rule if the owner or operator complies with all provisions in this rule's Appendix C and with the other applicable provisions of this rule.

301.4 Averaging: An owner or operator of a larger furniture coating facility meeting the applicability requirements of subsection b., in this rule's Appendix A, may comply with ~~subsection 301.1a.~~ Section 301.1(a) of this rule by complying with Averaging-Formula 1 or Averaging-Formula 2 in Appendix A and by complying with all other applicable provisions of Appendix A.

301.5 Smaller Source Option: The owner or operator of a facility that has emitted 2 or more tons but less than 10 tons per year of VOC from all wood coating and associated operations is exempted from all provisions under Sections 300, 400, and 501 (but not Sections 100, 200, and 502) if all provisions are complied with in this rule's Appendix B. Sources emitting less than 2 tons of VOC per year may be allowed exemptions pursuant to ~~subsection 307.2d~~ Section 308.2(d) of this rule.

302 LIMITATION OF CONVENTIONAL AIR-ATOMIZED SPRAY AND OTHER SPRAY METHODS ATOMIZING WITH HIGH-PRESSURE AIR:

302.1 Evidence of Transfer-Efficient Spray Equipment: ~~No person~~ An owner or operator shall not spray wood furniture with coating exceeding 1 lb VOC/lb solids (1 kg VOC/kg solids) without providing evidence of possession and use of a low pressure spray gun or system, an electrostatic system, or a system in which the energy for atomization is provided principally via hydraulic

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pressure; this includes air assisted airless and ultra-low-volume-air assisted technologies. Such requirement does not apply to any facility, activity or person specifically exempted by applicable subsections of Section ~~307~~ 308 of this rule, or to any specific system which is approved by the Administrator as having a transfer efficiency consistently exceeding 64%.

302.2 Limitation of Air-Atomized Spray other than Low Pressure: ~~No person~~ An owner or operator shall not use a conventional air-atomized spray gun or other restricted use gun, except:

a. To apply finishing materials that have a VOC content not exceeding 1.0 lb VOC/lb solids (1.0 kg/kg).

b. If VOC emissions from the finishing application station, employing such a gun, are captured and directed to an ECS, pursuant to the provisions of Appendix C.

c. For touch-up and repair under either of the following conditions:

(1) such application is performed after completion of the entire finishing operation; or

(2) such application is performed after applying stain, and before any further coating, by equipment having a total capacity not exceeding ~~2.1 gallons (8 liters)~~ 2.0 gallons (7.57 liters).

d. To apply less than 5% of all coating pursuant to ~~subsection 307.2.e~~ Section 308.2(e) of this rule.

303 OPERATION AND MAINTENANCE: Any person subject to this rule shall operate and maintain in proper working order all process equipment in which VOC-containing materials are used or stored.

304 LEAK DETECTION AND REPAIR

304.1 Leak Inspection: An owner or operator shall conduct a visual inspection, at least once each calendar month, of all equipment used to transfer or apply finishing materials or organic solvents as specified in Section 403 of this rule.

304.2 Leak Repair: The owner or operator shall repair a leak within the time frames as listed below:

a. A first attempt to repair a leak shall be made no later than 5 working days after the leak was first detected.

b. Final repairs shall be made within 15 working days unless the leaking equipment is to be replaced by a new purchase, where repairs shall be completed within three months.

~~304~~ **305 CLEANUP AND CLEANING SUPPLY AND APPLICATION EQUIPMENT:**

~~304.1~~ **305.1 Booth Cleaning:** ~~No person~~ An owner or operator shall not clean spray booth components using a solvent containing more than 8.0 percent by weight of VOC, including water and non-precursor compounds, except for: conveyors; continuous coaters and their enclosures; and metal filters. If the spray booth coating is being replaced, a person shall use no more than 1.0 gallon (3.8 liters) VOC-solvent to clean the booth.

~~304.2~~ **305.2 Cleaning Guns and Lines:** A person shall collect all solvent used to clean spray guns and shall pump or drain all solvent used for line cleaning into non-leaking container(s). Such containers shall be immediately closed or covered after all the solvent has been collected, and shall remain so except when in use.

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~~305~~ **306** **HANDLING AND DISPOSAL OF VOC:**

~~305.1~~ **306.1** **Use and Storage:** A person shall cover and keep covered each VOC-containing material intended for the day's production, which is not currently in use. A person shall store finishing and cleaning materials in closed containers.

~~305.2~~ **306.2** **Disposal of VOC and VOC-Containing Material:** A person shall store all VOC-containing materials, including, but not limited to, rags, waste coatings, waste solvents and their residues, in closed containers which are legibly labeled with their contents and which remain covered when not in use.

~~306~~ **307** **DESIGNATION OF VOC-CONTENT REQUIREMENT:** ~~Effective May 3, 1996, a~~ A manufacturer of wood-furniture coatings which are subject to this rule shall provide on each coating container or as an accompanying specification of each coating container a designation of VOC content. For topcoats and sealers, this shall be in pounds of VOC per pound of coating solids (g/g) or in pounds VOC per gallon (g/l) less water and non-precursor volatile compounds. This requirement shall not apply to containers having a capacity of one liter (1.05 quart) or less.

~~307~~ **308** **EXEMPTIONS:**

~~307.1~~ **308.1** **Total Exemption:** The following materials are exempt from this rule: adhesives, architectural coatings, printing ink, and coatings not applied on or over a wood product substrate.

~~307.2~~ **308.2** **Partial Exemptions:**

a. **Touch-up Cans:** Coatings in aerosol spray cans not exceeding 22 fl. oz. (0.66 liter) capacity used exclusively for touch-up and/or repairs are subject only to the recording requirements of this rule.

b. The following shall be exempt from ~~subsection~~ Section 301.1 and Section 302 of this rule:

(1) The use of the following coating types when the annual total use of all such types together is less than 250 gallons (948 liters): prepackaged aerosol spray cans which are not used for touch-up or repair, metal leaf finishes, and faux finishes.

(2) **Refinishing, Replacement, and Custom Replica Furniture Operations:** Any refinishing operation necessary for preservation, to return the furniture or fixture to original condition, to replace missing furniture to produce a matching set, or to produce custom replica furniture.

c. The coating for a single resin-layer finish which does not exceed a VOC limit of 3 lb VOC/lb solids for completed finishes up to 3 dry mils thickness or does not exceed 2.3 lb/lb for finishes over 3 dry mils is exempt from the VOC-limits of ~~subsection 301.1~~ Section 301.1 of this rule if all of the following conditions are met:

(1) The containers are clearly marked "FOR USE IN SINGLE RESIN LAYER FINISH";

(2) Facility records clearly identify this material: "DOES NOT MEET THE VOC LIMITS OF SECTION 301, RULE 342. – FOR USE ONLY IN SINGLE RESIN-LAYER FINISHES"; and

(3) The booth used to apply a single resin-layer finish above 2.3 lb VOC/lb solids is dedicated to that operation only, and is clearly labeled "FOR SINGLE RESIN-LAYER FINISHES ONLY".

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d. **Small Source Status:** A furniture coating facility which at any time demonstrates that it currently meets all the requirements in ~~subsections 307.2d~~ Sections 308.2(d)(1) and (2) of this rule ~~following,~~ is exempt from all provisions of this rule except for Section 303 "Operation & Maintenance" of this rule and Section ~~305~~ 306 "Handling and Disposal of VOC" of this rule. An operator of such an exempted facility shall keep on the premises current records of all coating related materials currently used, and their VOC content. For this purpose, a complete, updated set of receipts/invoices and Material Safety Data Sheets (MSDSs) will suffice if each receipt/invoice is retained on the premises at least two years.

(1) Facility records demonstrate that no more than a total of 55 gallons (209 liters) of VOC-borne wood-product coatings plus VOC-solvent are used in any month and that such monthly total divided by that month's number of days of coating application does not exceed 3.0 gallons (11.4 liters); and

(2) The facility emits less than 1814 kg (4000 lb) VOC, facility-wide per year from all wood-product coating operations including VOC in both solvent-borne and water-borne coatings, all VOC diluent added to coatings, all solvent cleaning and stripping, and VOC solvent used for coating equipment cleanup.

e. **Using Conventional and other Restricted Use Guns; Red Tag:** In addition to the uses of restricted-use guns allowed under ~~subsections 302.2 a., b., and c.,~~ Sections 302.2(a), (b), and (c) of this rule, a person may use a conventional air-atomized or other restricted use gun to apply coatings exceeding 1 lb VOC/lb if all the following conditions are met:

(1) The volume of such coating applied in this way is less than 5% of the total volume of coating applied at the facility;

(2) Each gun has a red tag when spraying materials exceeding 1 lb VOC/lb. Requirements for gun tagging are in Section 403 of this rule;

(3) A log shall be kept pursuant to ~~subsection 501.2c.~~ Section 501.2(c) of this rule of the amount of coating used by each such gun. This shall be done daily or each time coating is added to the gun's coating reservoir; and semi-annual calculation shall be made, pursuant to ~~subsection 501.2~~ Section 501.2 of this rule.

~~Errata Note1~~[1]

~~e. Using a Conventional or other Restricted Use Gun Identified by a Red Tag: In addition to uses allowed under subsections 302.2 a., b., and c., a person may use a conventional air-atomized or other restricted use gun to apply coatings exceeding 1 lb VOC/lb on the following limited basis:~~

~~(1) The volume of such coating applied in this way is less than 5% of the total volume of coating applied at the facility.~~

~~(2) Each gun always has a red tag when applying coatings exceeding 1 lb/lb. Tag requirements are in Section 403.~~

~~(3) A log shall be kept pursuant to subsection 501.2c, of the amount of coating used by each such gun. This shall be done daily or each time coating is added to the gun's coating reservoir; and semi-annual calculation shall be made, pursuant to subsection 501.2c.~~

~~1 1 This errata note is not part of Rule 342. For the reader's convenience, the second subsection 307.2e. was an earlier draft of the section not intended to be left in the rule. It will be removed for the next revision of this rule.~~

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SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE: The following schedule applies, with exceptions for an Emission Control System provided in Appendix C.

401.1 Sources Emitting 50 TPY: Each facility which has applied for or received a Title V permit, or a permit with an annual VOC limit of 50 tons or more, or which has had an aggregate VOC emission to atmosphere after December 31, 1989, of 50.0 tons (45.35 Mg) or more in any calendar year or 300 pounds (136 kg) or more in any day, emitted in compliance with all requirements of this rule and have submitted a Control Plan. The Control Plan shall set forth the maximum VOC content of each coating-as-applied and provide documentation showing how these values were determined.

401.2 Other Sources: ~~The schedule follows for any~~ Any wood furniture and/or fixture facility with total VOC emissions to atmosphere in each of the years 1990 through 1995 of no more than 300 pounds (136 kg) in any day and 50.0 tons (45.35 Mg) in any calendar year, emitted from wood coating operations and associated cleaning processes~~:~~, which has emitted more than 25 tons of VOC from coating operations in any of the years 1993 through 1995 must submit a Control Plan, setting forth the maximum VOC content and copies of the documentation showing how the coating-as-applied values were determined.

~~a. A facility shall be in compliance with all applicable provisions of this rule, except for Section 301 and Section 302 by May 3, 1996. Such facility shall be in compliance with Section 301 and Section 302 of this rule by November 15, 1996.~~

~~b. Control Plan: A facility which has emitted more than 25 tons of VOC from coating operations in any of the years 1993 through 1995 must submit a Control Plan by August 1, 1996, setting forth the maximum VOC content and copies of the documentation showing how the coating-as-applied values were determined.~~

402 REGULATORY CLARIFICATION

402.1 Status with Respect to Rules 330 and 336: ~~No~~ A wood furniture or fixture coating operation is not subject to Rule 330 or to Rule 336 of these rules.

402.2 Component Materials that were Subject to Prior Regulation: The regulatory status of facilities, owners or operators is not affected by the fact that component materials, such as wood composites or paneling, may have been subject to Reasonably Available Control Technology (RACT) or other regulatory requirements in their original manufacture, before their subsequent use by a facility in Maricopa County.

402.3 Other Rules: Nothing in this rule exempts a person from complying with the NESHAP (National Emission Standards for Hazardous Air Pollutants) for coating wood furniture and fixtures or from complying with any other applicable Federal, states, and local laws or regulations.

402.4 Coating over Wood Coating(s) the same as Coating onto Wood: The VOC-limits for finishing materials given in ~~section 301.1~~ Section 301.1 of this rule apply to such coatings whether applied directly onto any area of wood-product substrate or on any intermediate layer(s) of coating on the wood-product substrate.

403 GUN TAGGING REQUIREMENTS: An owner or operator shall use a red 4 square-inch vivid, durable tag, sticker, or painted emblem/label visible on the gun or within 3 ft of the gun on the gun's hose to meet the tagging/labeling requirements of ~~subsection 307.2e~~ Section 308.2(e) of this rule.

DRAFT

404 **Operator Training Requirements:** Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in finishing, adhesives, cleaning, and washoff operations, or the use of manufacturing equipment. Training records shall be maintained per Section 500 of this rule.

404.1 All personnel hired after [adoption date of this rule], shall be trained upon hiring.

404.2 All personnel hired prior to [adoption date of this rule], shall be trained by [six months after adoption date of this rule].

404.3 All personnel shall be given refresher training annually.

SECTION 500 – MONITORING AND RECORDS

501 **RECORDKEEPING AND REPORTING:** An owner or operator shall keep the following records and lists in a consistent and complete manner and shall make them available to the Control Officer without delay during normal business hours. Each record shall be maintained a minimum of five years.

501.1 Current List:

a. VOC-Containing Materials: A current list of all VOC-containing material shall be maintained which contains their name or code and their VOC content. Any qualified single resin-layer finish shall be identified as such.

b. How to Express VOC Content:

(1) Non-Coatings: Use grams VOC/liter or lb VOC/gal. for reducers, thinners, cleaners, etc.

(2) Stains: Use grams VOC/liter or lb VOC/gal.

(3) Topcoats and Sealers: Use either lbs VOC/lb solids or g VOC/liter (lb VOC/gal), except:

(a) Any topcoat or sealer sprayed with a conventional or other restricted use gun shall be expressed in lbs VOC/lb solids.

(b) Two VOC content values must appear for each topcoat and each sealer that is expressed as grams VOC per liter or pounds VOC per gallon: both grams VOC/liter (lb VOC/gal) including water and non-precursor organic compounds, and grams VOC/liter (lb VOC/gal) less water and non-precursor organic compounds.

(4) Other Coatings: Use grams/liter (or lb/gal), or lbs VOC/lb solids for coatings that are neither sealers nor topcoats, such as washcoats, glazes, etc.

c. Acceptable Format: VOC-containing materials shall be listed neatly and completely. The following is an example of an acceptable method:

Example: Identify and list each VOC-containing material in one of the following 6 categories: 1. topcoats; 2. sealers; 3. catalyst/hardeners; 4. diluents, such as reducers, coating solvents and thinners; 5. cleaning and stripping solvents; and 6. other VOC-containing materials. Next to each material, record the VOC-content found on the container, an MSDS, an invoice, or other source.

d. Mix Ratios: A current list shall be maintained of the manufacturer's recommended mix ratio of components, including but not limited to adding reducers and catalyst/hardeners, except when the manufacturer has no recommendations for any additions.

DRAFT

501.2 Schedule for Recording Material Usage:

a. Daily Updates for Non-Compliant Material: The amount of each day's use of each topcoat, sealer or booth material that exceeds applicable VOC limits of Section 301 or Section ~~304~~ 305 of this rule shall be totaled and logged by the end of the following workday. VOC content shall be entered for each such material.

b. Monthly Update for Materials Compliant with Sections 301 and ~~304~~ 305 of This Rule: By the end of the following month, an owner or operator shall update the following records for each month:

(1) For each topcoat and sealer to which reducer is added at any time after its arrival at a facility, enter the VOC content in lb VOC/lb solids or in grams/liter (lb/gal) less water and non-precursor organic compounds**.**

(2) The amount of coating, the amount of catalyst/hardener, and the amount of reducer/coating diluent used.

(3) The quantity and type of organic solvent used each month for stripping and cleaning.

(4) The quantity of organic solvent disposed of offsite during the month just ended.

(5) Exception: Update yearly the totals of the usage of each VOC containing material known to be used in amounts less than 15 gallons (57 liters) per year.

c. Semi-Annual Updates of Coatings Applied with Restricted Use Gun: Records associated with the Section 302 limitations on the use of conventional air-atomized spray equipment and other restricted-use guns shall be kept. These records shall show for each semi-annual period the volume (VR) of finishing materials exceeding solids (1 lb VOC/ lb solids) (1 kg VOC/kg solids) applied with conventional air-atomized spray guns and other restricted use guns. In addition, the total volume of all finishing material (AMV) used throughout the facility shall be determined. The total volume (VR) so applied over the previous six-months is divided by the total of all coatings used in the same period (AMV) and these calculations and the result are entered in the log.

501.3 Disposal/Recovery: An owner or operator shall keep records of disposal/recovery of all VOC-containing materials.

501.4 Leak Detection Inspection And Repair Records: The owner or operator shall maintain leak detection and repair records that document, at a minimum, the following:

a. Name of owner or operator conducting the leak detection inspection.

b. The date the inspection was conducted.

c. The equipment inspected.

d. Any leaks that were detected or, note if no leaks were detected.

e. If a leak was detected, then include all of the following information on the inspection record:

(1) The date the leak was detected.

(2) The date of the first attempt of repair.

DRAFT

(3) The results of the first attempt of repair.

(4) The date and results of subsequent repairs, if necessary.

(5) The results and date of the final repair.

501.5 **Training Records:** The owner or operator shall maintain a copy of the training program and shall include, at a minimum, the following:

a. A list of all current personnel by name and job description who are required to be trained;

b. An outline of the subjects to be covered in the initial and refresher training;

c. Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, all of the following information:

(1) Application techniques;

(2) Cleaning and washoff procedures;

(3) Equipment setup and adjustment to minimize finishing material usage and overspray; and

(4) Management of cleanup wastes; and

(5) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

502 **COMPLIANCE DETERMINATION – TEST METHODS:** ~~When more than one test method is permitted for a determination, an exceedance of the limits established in this rule, as determined by any of the applicable test methods, constitutes a violation of this rule.~~ An exceedance of the limits established in this Rule 342, determined by any of the applicable test methods, constitutes a violation of this rule. 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. These documents are available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ 85004. 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.

~~502.1 Measurement of VOC content, pursuant to the VOC limits of subsections 301.1, 301.2, and 302.2, and subsections 304.1 and 307.2c., shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A). Acetone content shall be determined within the context of Method 24 by EPA Method 311 or other method acceptable to EPA. Multi-part coatings including those with reactive diluent(s) shall be tested by Method 24 procedures.~~

502.1 EPA REFERENCE METHOD 24—DETERMINATION OF VOLATILE MATTER CONTENT, WATER CONTENT, DENSITY, VOLUME SOLIDS, AND WEIGHT SOLIDS OF SURFACE COATINGS (40 CFR 60, Appendix A-7) shall be used to determine the VOC content and the solids content by weight of the coating materials.

502.2 Measurement of air pressure at the center of the spray gun tip and air horns of a conventional air-atomized spray gun (reference Section 302) shall be performed using a device in proper working order supplied by the gun's manufacturer for performing such a measurement.

502.3 Measurement of mil thickness to determine compliance with single resin-layer finish parameters in ~~Section 227~~ Section 226 of this rule and s~~ubsection307.2c~~ Section 308.2(c) of this rule shall be

performed by draw bar and calculations using the weight and area of the film and the density of the cured coating solids, by a Tooke Inspection Gage according to the instructions of its manufacturer, or by other means used for the purpose by a major coating manufacturer's laboratory or quality control.

DRAFT

APPENDIX A TO RULE 342

AN AVERAGING ALTERNATIVE

a. **Purpose:** The averaging provisions of this Appendix to Rule 342 allow the owner or operator of a furniture coating facility, which meets eligibility requirements, increased options in choosing coating types. These provisions expand the range of the allowable VOC contents of coatings while limiting overall VOC emissions to amounts less than would be emitted at the VOC-content limits of ~~subsection~~ Section 301.1 of this rule.

b. **Eligibility to Apply:** The owner or operator of any furniture coating operation, reasonably capable of annually emitting more than 25 tons of VOC and having at least one of the following four statuses with respect to VOC emissions, may apply to average:

(1) Has emitted more than 25 tons (21.7 Mg) of VOC in any year since 1989 and has a Maricopa County Air Quality Permit or is under consideration for such permit by the Control Officer;

(2) Has in its permit a VOC-emissions limit of 50 tons or more;

(3) Has applied for or received Title V status.

c. **How to Apply:** An applicant shall submit a request for eligibility to the Control Officer. This request shall include a summary of the chief reasons for requesting eligibility for averaging.

(1) The Control Officer shall provide a brief questionnaire eliciting responses intended to reveal whether the operator has sufficient understanding and preparation to successfully average. This questionnaire shall require a sample of their intended recordkeeping format along with calculations containing the expected amount and VOC-contents of coatings intended to be used in averaging.

(2) The Control Officer may request confirmation, correction, or clarification from the owner or operator for responses to the questionnaire that are questionable; that appear unclear, erroneous, incomplete, or non-pertinent, or for which there is contrary evidence.

(3) The owner or operator shall submit a correctly completed questionnaire, signed by a responsible officer of the facility, no later than 14 calendar days prior to the first day of averaging.

(4) Control Officer approval of the completed questionnaire shall constitute an acceptance of application for minor permit revision. The Control Officer may request additional information characteristically required for minor revisions to the permits of wood furniture coaters as a class.

(5) Control Officer approval does not necessarily constitute satisfaction of all federal requirements nor preempt the EPA Administrator's asserting a right of approval.

d. **Definitions of Terms used in an Averaging Regime:**

(1) **CREDIT CONSUMING COATING (EXCEEDING COATING):** In an averaging regime, coating with average VOC content exceeding the neutral point for its particular coating type, such as topcoat, sealer, etc. A credit consuming coating requires the use of credit generating coating(s) in order that the combination of all coatings in use will not exceed the limit set by the left side of the averaging formula.

(**2**) **CREDIT CONSUMING PIECE/EXCEEDING PIECE:** In an averaging regime, a piece of furniture which is a member of a model-line of furniture receiving such a high proportion of credit-consuming coating that when the VOC contents and coating quantities received by the

DRAFT

model-line, are entered into an averaging formula of Section i., the sum yielded by the right side of the formula is consistently larger than the sum yielded by the left side of the formula.

(3) **CREDIT GENERATING COATING:** A coating which has VOC content well below the neutral point and, thus, is used in an averaging regime to create surplus VOC credit(s) to offset the excess emissions of particular credit consuming coating(s).

(4) **CREDIT GENERATING PIECE:** In an averaging regime, a piece of furniture which is a member of a model-line of furniture receiving so much credit generating coating that when the VOC contents and coating quantities, received by the model-line, are entered into an averaging formula, the sum yielded by the right side of the formula is consistently less than the sum yielded by the left side of the formula.

(5) **NEUTRAL POINT:** The particular number representing the VOC content of a particular coating type having the mathematical property that if it is included in an averaging formula it has no effect on the numerical results of the formula, regardless of how much of the coating is used. The neutral point VOC content for each affected coating-type is as follows:

Using Formula 1:

Topcoat neutral point - 0.72 kg VOC/kg coating solids. (Stains, sealers, etc. do not appear in Formula 1)

Using Formula 2:

The neutral point VOC content for each of the 5 types of coating in Formula 2 is as follows:

Topcoat - 1.62 kg VOC/kg solids; sealer coat - 1.71; washcoat - 8.1; basecoat - 1.08

The neutral point for stains is expressed in kilograms VOC per liter of coating - 0.712 kg VOC/liter

e. **Basic Requirements for all Averaging Regimes:**

(1) **Entire Workdays:** Averaging regimes must be in place for no less than an entire 24 hour period and at all times during such 24-hour period. Normally, a workday will be the calendar day in which work commences. However, an owner or operator may designate in writing a workday schedule beginning and ending at a specific time between 12 midnight and 4:30 AM if the last shift normally ends between midnight and 4:30 AM, unless the Control Officer issues written disapproval. The times of the averaging workday may be changed if written notification has been given the Control Officer at least five workdays before the start of the intended new schedule, and no communication of disapproval has been issued within this time by the Control Officer.

(2) **Averaging Applies Plant-Wide:** An averaging regime applies throughout a facility to all production furniture coating occurring during all 24 hours of a workday for which an averaging regime is declared.

(3) **No Exemption for Single Resin-Layer Finishes or Acid-Cured, Alkyd Amino Coatings:**

(a) In averaging regimes using Formula 2, for surfaces which receive in total only one application of film building coating, the neutral point for that coating shall be the same as that for a sealer, 1.71 kg VOC/kg solids, and it shall be totaled with sealers in the averaging formula.

DRAFT

(b) Acid-cured, alkyd amino coatings, with or without vinyl chemistry, shall have the same neutral points in Formula 2 as do other sealers and topcoats (1.71 and 1.62, respectively) and shall be totaled in with the other sealers and topcoats in Formula 2.

(4) **Identifying Credit Consuming Models:** Each furniture/finish model must be identified which on average does not by itself (i.e., by the combination of all coatings it receives) meet the applicable averaging formula (and must be offset by models whose coatings generate VOC credits). The model name and/or code of each credit consuming model must be identified in a permanent record for that purpose, along with a designation indicating that the model produces excess emissions. This designation can be the average grams of VOC above the formula limit, the maximum grams above the limit, number of exceeding grams at the first standard deviation, relative risk, or other term(s) created by the owner or operator that fulfill this purpose for the facility**.**

(5) **Exemption for Physically Separated Lines:**

(a) At the Control Officer's discretion, an exemption from the requirement that the entire facility participate when an averaging regime is in effect can be granted for an additional coating line if: Such a coating line is both physically separate from the operations involving averaging and all monitoring, recordkeeping, and coating equipment including coating reservoirs are kept separate from the monitoring, recordkeeping and coating equipment participating in an averaging regime. The burden of demonstration is on the owner or operator that there is no significant risk of confounding enforcement, monitoring, recordkeeping, and equipment activities between the lines.

(b) **Dual Averaging Regimes:** A facility which has received such a subsection e.(5)(a) exemption has the option of running each separated line using an averaging regime. However, all requirements of this rule must be complied with by each separated line.

(6) **Declaration of Averaging:** On any day of a Control Officer presence at a facility permitted to average, the owner or operator shall correctly announce without delay whether an averaging regime is currently in effect, and on an averaging day shall also forthwith supply a listing of each coating participating in the averaging formula, along with the VOC content and the coating category of each.

f. **Recordkeeping and Monitoring:** In addition to the requirements of Section 501 of this rule, an owner or operator shall do the following:

(1) **Daily List the Components:** Prior to applying any coating on an averaging day, a list shall be made of each coating name/code to be used that day in the averaging formula and its expected VOC content as applied. This list shall be available to the Control Officer without delay.

(2) **Daily calculation Deadline:** After each day using averaging, an owner or operator shall determine the results of averaging for that completed production day by midday on the next workday. These results shall be put into hardcopy in the same format that the owner or operator used in the approved application questionnaire. Some other format may be used if the Control Officer has given the format approval before beginning averaging.

(3) **Log in:** An owner or operator shall arrange and keep the hardcopy results of each day's averaging in a form that allows the results of each averaging day within the 13 months prior to a Control Officer visit to be accessed by the Control Officer without delay.

(4) **Content of Weekly Summary of Production-Coating:** By the end of the first shift of the workweek, totals for the workweek just completed shall be compiled as follows:

(a) For each model and color, the total number of furniture pieces coated;

DRAFT

(b) The name and quantity applied for each stain, washcoat, basecoat, sealer, topcoat, and diluent recorded. The quantity of stain shall be expressed in liters; the quantity of the other coatings expressed in kilograms;

(c) The VOC content for each such coating and diluent, expressed in kg VOC/kg solids; and the non-precursor organic compound (NP) content of each, expressed either in kg NP/kg solids or kg NP/kg coating-including-NP shall be recorded, except that the VOC content of each stain shall be expressed in kg VOC per liter of coating, including any water or non-precursors.

(d) **Monthly Totals for Non-Averaged Coatings:** For coatings that do not participate in the averaging formulas, the total kilograms used shall be updated monthly. Coatings of the same type may be totaled together under a single VOC-content value if their VOC contents are within ± 2% of that value.

(5) **Handling Unavoidable Data Loss and Data Processing Equipment Malfunctions:** An owner or operator shall put an accounting system in continual effect that allows the retrieval or reconstruction of data. When data required by this rule is lost, the Control Officer shall be notified forthwith and such data shall be reconstructed and due calculations completed within two facility workdays. The Control Officer may request that a hardcopy of the retrieved information be provided him/her by the same clock time, two workdays hence.

(6) **Report Submittal Schedule:**

(a) **Semi-Annual Reports:** An owner or operator shall submit a summary of the records, including all exceedances, by July 20 for the first half of the year and by January 20 of the following year for the second half. Included shall be certified data sheets for coatings whose VOC content is determined by the supplier and not directly by the facility, and a statement that the coatings for which certified data sheets are submitted were the coatings actually used. All the foregoing shall be certified to and signed by a responsible official of the facility.

(b) **Initial Compliance Report:** Within 60 days after the third day ever of averaging, an owner or operator shall submit a report to the Control Officer containing all the elements required by subsection f.(6)(a) above.

g. **Test Procedures and Requirements:**

(1) An owner or operator shall cause to be performed EPA Method 24 —Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, tests on a sample of each coating intended to be used in an averaging regime, prior to using such coating in any averaging regime. These samples shall be taken at three levels of dilution: prior to adding any diluent; with the minimum weight of solvent/diluent typically used; and with the maximum weight of solvent/diluent expected ever to be needed.

(2) An acetone determination shall be made in conjunction with Method 24 using EPA Method 311 - Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection Into a Gas Chromatograph; or other method approved by EPA at the three dilution levels stipulated in subsection g.(1).

(3) **The Status of Certified Product Data Sheets:** After the initial Method 24 tests pursuant to subsection g.(1), an owner or operator may substitute the specific certified product data sheet, based on Method 24, for any coating for any of the three levels of dilution stipulated in subsection g.(1), in lieu of directly overseeing the Method 24 tests.

DRAFT

(a) However, a certified product data sheet is not valid and shall not be submitted if it is neither for a dilution level in subsection g.(1) nor for the actual dilution level of a coating as applied during averaging.

(b) When the results of a Method 24 test, performed pursuant to a Control Officer initiative or directive, differ from the certified product data sheet, the Control Officer may require an owner or operator to have Method 24 tests conducted at a testing facility agreed to by the Control Officer and may require that the results of such tests be the values used in calculating averages.

h. Sanctions:

(1) If an exceedance of the limits of an averaging formula is determined to be in violation of this rule, at least two violations may be charged: at least one violation for exceeding the limits in ~~subsection 301.1~~Section 301.1 and a separate violation for exceeding the limit determined by the averaging formula in Section i. of this Appendix. Unless the Control Officer chooses otherwise, the number of violations issued for an exceedance of an averaging limit shall be one greater than the number of exceeding coatings participating in the averaging formula. Each day the average is exceeded will be counted as a separate incident.

(2) **Continuance:** The Control Officer may disallow an owner or operator the continuance of averaging at a facility which has failed to comply with one or more provisions of this Appendix on three separate days in any period of 12 consecutive months, or which has been found guilty of a major violation of such provisions, except as prohibited by other rule or statute.

i. Two Averaging Formulas: The following are the two mathematical formulas from which one may be chosen to be used for an averaging regime.

(1) If topcoats consistently average less than 0.72 kg VOC per kg solids on a mass solid basis, an owner or operator may use Formula 1.

$$\sum_{i=1}^{n} 0.72(TC_i) \geq \sum_{i=1}^{n} ER_{TC_i}(TC_i) \quad \textbf{Formula 1}$$

(2) For other coating systems using averaging, Formula 2 shall be used.

$$\sum_{i=1}^{n} 1.62(TC_i) + 1.71(SE_i) + 8.1(WC_i) + 1.08(BC_i) + 0.712(ST_i) \geq$$
$$\sum_{i=1}^{n} ER_{TC_i}(TC_i) + ER_{SE_i}(SE_i) + ER_{WC_i}(WC_i) + ER_{BC_i}(BC_i) + ER_{ST_i}(ST_i) \quad \textbf{Formula 2}$$

where:

N	=	number of finishing materials participating in averaging;
TC_i	=	kilograms of solids of topcoat *i* used;
SE_i	=	kilograms of solids of sealer *i* used;
WC_i	=	kilograms of solids of washcoat *i* used;
BC_i	=	kilograms of solids of basecoat *i* used;

DRAFT

ST_i = liters of stain *i* used (water and any non-precursor content are not subtracted);

ER_{TC_i} = VOC content of topcoat *i* in kg VOC/kg solids, as applied;

ER_{SE_i} = VOC content of sealer *i* in kg VOC/kg solids, as applied;

ER_{WC_i} = VOC content of washcoat *i* in kg VOC/kg solids, as applied;

ER_{BC_i} = VOC content of basecoat *i* in kg VOC/kg solids, as applied; and

ER_{ST_i} = VOC content of stain *i* in kg VOC/liter, as applied.

j. **Pre-RACT Coating use is Limited:** If a coating was used before 1993, and is still used for the same purposes, and it had a VOC content then which is lower than the neutral point for that coating type, then that coating may only be used in the averaging equation if the coating is now lower in VOC than before 1993. If that coating is used in averaging, the left side of the averaging formula must reflect the pre-RACT VOC content and not the current RACT neutral point for that type of coating. To effect this, additional mathematical terms must be added, one on the left and one on the right side of the formula. For example, if one can prove one used a high solids topcoat at 1.5 kg VOC/kg solids before 1993 (the year regulation negotiations began) and now thin the same product less so that it is consistently less than 1.5 kg/kg, one can enter it as a separate term. It appears in the formula below as "1.5(TU)" where "TU" stands for the total kilograms of solids of this unique topcoat used during an averaging day. "TU" appears on both sides of the inequality sign. ERu is the actual VOC content that was in this unique topcoat on a particular averaging day. Along with this, the meaning of the term (TCi) becomes slightly altered to mean the total topcoat solids used of every other topcoat beside the unique topcoat "U":

$$\sum_{i=1}^{n} 1.62(TC_i) + 1.5(TU) + 1.71(SE_i) + 8.1(WC_i) + 1.08(BC_i) + 0.712(ST_i) \geq$$
$$\sum_{i=1}^{n} ER_{TC_i}(TC_i) + ER_U(TU) + ER_{SE_i}(SE_i) + ER_{WC_i}(WC_i) + ER_{BC_i}(BC_i) + ER_{ST_i}(ST_i)$$

Similarly, any other unique coatings that meet such requirements and are used in averaging must each have its own set of two terms inserted into the averaging formula. Moreover, once a pre-RACT coating is used in averaging, the term for its VOC content must stay in the equation as long as that pre-RACT coating is used, even if one later needs to raise the VOC content of the pre-RACT coating to a level above its historical VOC content.

DRAFT

APPENDIX B – A SHORT-FORM OPTION

a. **Applicability:** This Appendix B to Rule 342 only applies to operators of facilities which have a permit or permit modification limiting VOC emissions from all wood furniture and millwork coating to less than 10 tons, and the permit or Control Officer states in writing that this Appendix B applies. For those facilities for which this Appendix B does apply, no provisions within Sections 301 through 501, inclusive, shall be used to substitute for provisions in this Appendix B. Facilities subject to this Appendix B are also subject to all of Sections 100, 200, and 502.

b. **Definitions:** For the purposes of this Appendix B, the following definition shall apply:

(1) **MINUS EXEMPT MATERIALS (MINUS EXEMPTS):** Means the same as "less water and non-precursor organic compounds" in specifying VOC content.

c. **VOC Limits for Topcoats and Sealers**

(1) **The Principal VOC Limits:** Meet either the lbs VOC/lb solids limit or the lbs VOC/gal, minus exempts, limit: **All sealers and topcoats**: **2 lbs VOC/lb** or **5.45 lb VOC/gal**

(2) **VOC Tradeoff Options:** These 2 options each require special conditions.

(a) **Low VOC topcoat with Higher VOC Sealer:**

Low VOC topcoat: 0.8 lb/lb OR 3.83 lb/gal limit for topcoat.

Higher VOC sealer: no VOC limit for sealer under such topcoat.

(b) **One-Step Finish:**

Higher VOC combination sealer and topcoat: **3 lb/lb** OR **6.0 lb/gal limit.**

The 2 Conditions:

I. A single wet application of either sealer or topcoat (not both)

II. Thickness of the dry finish cannot exceed 3 dry mils, as determined by the test method in subsection 502.3.

d. **Spray Method Requirements:**

(1) **Have Guns with Higher Transfer**: If you spray coating having over 1 lb VOC/lb you must use and have in evidence for an inspector at least one of the following onsite:

- Low pressure gun with less than 12 psig at tip. Examples: pure HVLP gun; a turbine gun.
- Airless; includes air-assisted airless.
- An electrostatic system.

(2) **Green Tag Option:** Restriction on conventional guns and other restricted use guns:

(a) **Green Tag Requirements:** A conventional air-atomized or other restricted use gun shall have a durable and visible green tag, sticker, or painted emblem, no less than 4 square inches in area on the gun or within 3 ft of the gun on the gun's hose, or the facility is in violation. But, such a tag is not required at a facility having and using only coatings

DRAFT

which contain less than 1 lb VOC/lb solids as applied. Coatings which have less than 4.30 lb VOC/gal (515 g/l) minus exempt materials also meet this requirement.

(b) **Prohibition:** No coating over 1 lb VOC/lb solids may be applied with a conventional air-atomized or other restricted use gun. This prohibition includes, but is not limited to, traditional lacquers, washcoats, and low-solids stains. ("Conventional air-atomized gun" is defined in Section 208. "Restricted use gun" is defined in Section 225.)

(3) **Exemptions from VOC and Spray-Method Limits**: Prepackaged aerosol spray in cans under 22 fl. oz., faux & metal-leaf finish are exempt from Appendix B's subsections c.(1) and (2) and d.(1) and (2) as is any refinishing operation necessary for preservation, to return furniture to original condition, to replace missing furniture items to complete a matching set, or to produce custom replica furniture. But nothing exempted by the previous sentence is exempt from inventory of VOC emissions or from other provisions of this Appendix B.

e. **Housekeeping Functions:**

(1) **Keep Coatings, Cleaners, & Waste-Materials Covered:** Coatings and cleaners not in use, as well as waste coatings, cleaning materials including solvent-dipped rags, and solvent used to clean spray equipment must be collected into a closed container or a container which is closed immediately after receiving such material.

(2) **Booth Cleaning:** If booth/components other than *metal* filters are cleaned with solvent, no solvent which is more than 3.8 lb/VOC per gallon (455 g/l) shall be used. However, up to 1 gallon of solvent over 3.8 lb VOC/gal may be used for cleaning a booth as part of replacing coating on the booth.

f. **Records:** Keep a list of all VOC containing material with the name and amount of VOC in each: Express VOC content either as lb/lb or lb/gal. For topcoat and sealer contents which are expressed in lb VOC/gal, this must be minus water and non-precursors.

(1) **If you ever do your own Reducing or Thinning of a Sealer or Topcoat**:

Keep a list of the maximum VOC content of any material after you thin it or add any additives at your facility.

(2) **Keep Receipts for 5 Years** of the amount received for each VOC-containing material and of the amount of all VOC-waste materials sent for recycling or hazardous waste collection.

(3) **What to Record and How often:** Record the amount in the following 4 categories, (a) to (d), noting either the amount "used" or the amount "received" since your last records update:

(a) All coatings including topcoats, sealers, stains, etc., including all parts, catalysts, activators, additives, hardeners; (not reducers). If you use conventional guns at all, total separately the coatings having less than 1 lb VOC/lb;

(b) All reducers and diluents to be used for reducing or diluting coatings (not cleaning);

(c) All solvents, strippers, thinners, and VOC-containing materials used for cleaning and cleanup (not reducing); and

(d) All other VOC containing materials connected with wood coating. Omit janitorial & building maintenance.

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(e) **How often to Update your Records:** Update the above items in (a), (b), (c), and (d) weekly if your total monthly use of all coatings and diluents [(a) + (b)] is 250 gallons or more. Otherwise, update monthly. You may record just once a year those types of materials you use less than 15 gallons of.

Example: I use 5 kinds of graining ink. Added all together, I use 14 gallons of all graining ink combined: I only have to update my graining inks once a year.

DRAFT

APPENDIX C TO RULE 342

ALTERNATIVE COMPLIANCE WITH SECTION 301 VOC-LIMITS

AND/OR SECTION 302 SPRAY-METHOD RESTRICTIONS

BY USING AN EMISSIONS CONTROL DEVICE

a. **Eligibility:** A person is allowed to meet the VOC limits of either or both ~~subsections 301.1 and 301.2~~ Sections 301.1 and 301.2 of this rule by using an ECS which reduces VOC emissions overall, including capture and processing, by at least 81 percent by weight. Such an ECS may also be used to comply with ~~subsection 302.2~~ Section 302.2 of this rule spray method provisions.

b. **Operation and Maintenance (O&M) Plan Required for ECS:**

(1) The owner or operator of an emission control system (ECS) used to meet the requirements of Section 301 of this rule shall provide the Control Officer with an Operation and Maintenance (O&M) Plan. This O&M Plan shall specify key system operating parameters, such as temperatures, pressures and/or flow rates, necessary to determine compliance with this rule, and describe in detail procedures and their frequency of implementation needed to maintain the ECS.

(2) The Control Officer's written approval of the O&M Plan is required. The owner or operator shall consistently implement all provisions of the O&M Plan.

(3) **Changes in Frequency:** Changes involving reduction in the frequency or extent of procedures or parameters in a Control Officer-approved O&M Plan shall have the written consent of the Control Officer prior to being implemented.

(4) **Other Changes:** An updated O&M Plan must be submitted to the Control Officer for review within 10 days of any changes not involving reduction in frequency or extent of procedures or parameters of an approved O&M Plan. Within five working days of a written disapproval of such changes, either the original O&M Plan shall be reinstituted or an alternative plan, negotiated with the affected facility and approved in writing by the Control Officer, shall be instituted.

c. **Providing and Maintaining ECS Monitoring Devices:** Any person operating an emission control system (ECS) pursuant to ~~subsection 301.3~~ Section 301.3 of this rule shall install, maintain, and calibrate monitoring devices described in the O&M Plan submitted to the Control Officer pursuant to subsection b. of this appendix. The monitoring devices shall measure temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly.

(1) **ECS Operation and Maintenance Records:** On each day that an ECS is used to comply with Section 301 of this rule, an owner or operator shall make a permanent record of the operating parameters of the key systems described in the O&M Plan. 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. An explanation shall be entered for scheduled maintenance that is not performed during the period designated in the O&M Plan.

(2) **Other Records Required when Complying Via ECS:** An owner or operator choosing to meet the requirements of Section 301 through the use of an ECS shall maintain, in addition to the monthly records required by ~~subsection 501.2~~ Section 501.2 of this rule:

(a) Daily documentation showing the VOC content of the finishing material, as applied, in pounds VOC/pound solids when solvent or other VOC is added to the finishing material before application.

DRAFT

(b) Daily records showing the amount of coating, the amount of catalyst/hardener, and the amount of solvent, reducer, and/or diluent used.

d. **Compliance Schedule for ECS**: An owner or operator of a wood furniture coating facility shall have such facility in compliance per the following schedule. Total VOC emissions is the total VOC from all wood coating operations and associated cleaning processes. It includes millwork coating.

(1) **Sources Emitting 50 TPY:** The owner or operator of a wood furniture coating facility shall be in full ~~Full~~ compliance with all applicable requirements of this rule ~~shall be by November 15, 1996,~~ if such facility has applied for or received a Title V permit, its permit has a VOC-emissions limit of 50 tons or more, or which has had an aggregate VOC emission to atmosphere after December 31, 1989, of 50.0 tons (45.35 Mg) or more in any calendar year or 300 pounds (136 kg) or more in any day. In addition, an owner or operator shall provide the Control Officer with:

(a) Both proof of a binding contract for an ECS and a compliance plan ~~by June 3, 1996,~~ listing dates of completion of increments of progress toward meeting the requirements of ~~subsection 301.3~~ Section 301.3 of this rule.

(b) An O&M Plan for the ECS ~~by November 15, 1996~~.

(2) **Other Sources:** ~~A~~ The owner or operator of a wood furniture coating facility shall be in compliance with Section 302 of this rule ~~by November 15, 1996~~ and with Section 301 ~~by January 15, 1997~~ of this rule, if its total VOC in each of the years 1990 through 1995 of less than 300 pounds (136 kg) in any day and 50.0 tons (45.35 MG) in any calendar year. In addition, the owner or operator shall provide the Control Officer with:

(a) Both proof of a binding contract for an ECS and a compliance plan ~~by June 3, 1996~~, listing the dates of completing the increments of progress toward meeting the requirements of the ~~subsection 301.3~~Section 301.3 of this rule; and

(b) An O&M Plan for the ECS ~~by January 2, 1997~~.

e. **Test Methods for an ECS**

(1) Control efficiency of an emission control device used to meet the requirements of Section 301 shall be determined according to EPA ~~Reference~~Test Method 25 —Determination of Total Gaseous Nonmethane Organic Emissions as Carbon or an applicable submethod of Method 25 (Title 40, CFR Part 60, Appendix A).

(2) EPA Test Method 18—Measurement of Gaseous Organic Compound Emissions by Gas Chromatography shall be used if specified by the Control Officer when a non-precursor organic compound is present in the input of a control device used to meet the requirement of Section 301 of this rule.

(3) Capture efficiency of an emission control device used to meet the requirements of Section 301 shall be determined by mass balance in combination with ventilation/draft rate determinations done in accordance with subsection e.(4), following, or according to "Guidelines for Determining Capture Efficiency" January 9, 1995, Candace Sorrell, Source Characterization Group A, Office of Air Quality Planning and Standards, US EPA. This EPA document is available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, Arizona, 85004.

(4) Ventilation/draft rates of an emission control device used to meet the requirements of Section 301 of this rule shall be determined by one or more of the following EPA Test Methods: ~~2, 2A, 2C, or 2D.~~

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a. EPA Test Method 2—Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)

b. EPA Test Method 2A—Direct Measurement of Gas Volume Through Pipes and Small Ducts

c. EPA Test Method 2C - Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)

d. EPA Test Method 2D—Measurement of Gas Volume Flow Rates in Small Pipes and Ducts

DRAFT

Enhanced Regulatory Outreach Program
Maricopa County Air Quality Department
Stakeholder Workshop: Summary
AQ-2015-006-Rule 342
Coating Wood Furniture and Fixtures
December 17, 2015

Attendees:

16 Stakeholders attended: Dan-Am Co/SATA, AEM Company, Oak Canyon Manufacturing Inc, Trendwood Inc, Ryley Carlock & Applewhite Law Firm, Oak Craft Inc, Copperstate Cabinet Co, Geosyntec Consultants, Bison Engineering

3 Staff attended: Hether Krause-P&A Division, Johanna Kuspert-P&A Division, Cheri Dale-P&A Division

Online participants: American Coatings Association, Valspar, EPA

Comments:

1. Removing definition of "Low Pressure Spray Gun" is not necessary; stakeholders asked to retain definition

2. Retain definition of "Low Pressure Spray Gun" and retain proposed definition of "High-Volume Low Pressure Spray Gun" and include in Section 300 (Standards) that you can use a low pressure spray gun or an HVLP spray gun or an alternative application method
   - "RP Gun" or "Conventional Gun" (29 psi at the cap)
   - "Reduced-Pressure Gun" is referred to as "Alternative Application Method"
   - Include standards for application methods (low pressure spray gun, HVLP spray gun, alternative application method)
   - Refer to/reference "EPA" and not "CARB"

3. In Section 219 (Definition of "Low Pressure Spray Gun"), "tip pressure" should be "cap pressure"; cap is atomization

4. Original Table1 is less confusing than proposed Table 342-2

5. It would be more confusing if "lacquer" were in the rule; do not include "lacquer". The rule should be clear about which standard applies to which material; a Safety Data Sheet will use "lacquer" or "sealer"

6. Proposed Section 304 (Leak Detection and Repair) is verbatium from Appendix B in the CTG; clarify what records must be kept – inspections made for leak detection and repair or all inspections of equipment

7. In proposed Section 404.2 (Operator Training Requirements), is "six months after date of adoption" text from the CTG? Change "personel" to "employees"

8. Amend introductory statement(s) in Section 102 (Applicability) to include references to Standard Industrial Classification (SIC) codes; this will address the concern that the rule applies to commercial operations. Include text from the last slide of the PowerPoint presentation for the Stakeholder Workshop conducted on December 17, 2015 re: Rule 342 not applying to SIC #2431 (Millwork)

9. Clarify if Rule 331applies to Rule 342; ideally, rule should be industry-specific. All cleaning requirements and organic solvent requirements should be in Rule 342

10. All requirements that apply to furniture woodworkers should be in Rule 342

11. Current text in Sections 301.1(b) and 301.2 is proposed to be moved into Table 1 in the next draft

12. Propose in next draft to move Section 308 (Exemptions) earlier in the rule for ease of readability; must determine if adhesives will be addressed in Rule 342 or in another rule

13. Proposed text re: requirements for manufacturers and suppliers will be reviewed; American Coatings Association will submit comments

14. To review the CTG re: “wash off for cleaning”

15. Text re: red tag-green tag will be reviewed. With technology in use today, are such tags needed? Should current text remain in the rule? Should the text be simplified?
    - Can you still use a conventional gun, if there were no red tag-green tag requirements?
    - Do red tag-green tag requirements affect industry flexibility to use technology?

16. In Section 502.2 include HVLP limits or requirements; conventional spray guns are typically high pressure spray guns

Next Steps: Incorporate comments into next draft and conduct another workshop

Air Quality Rules

Hether Krause

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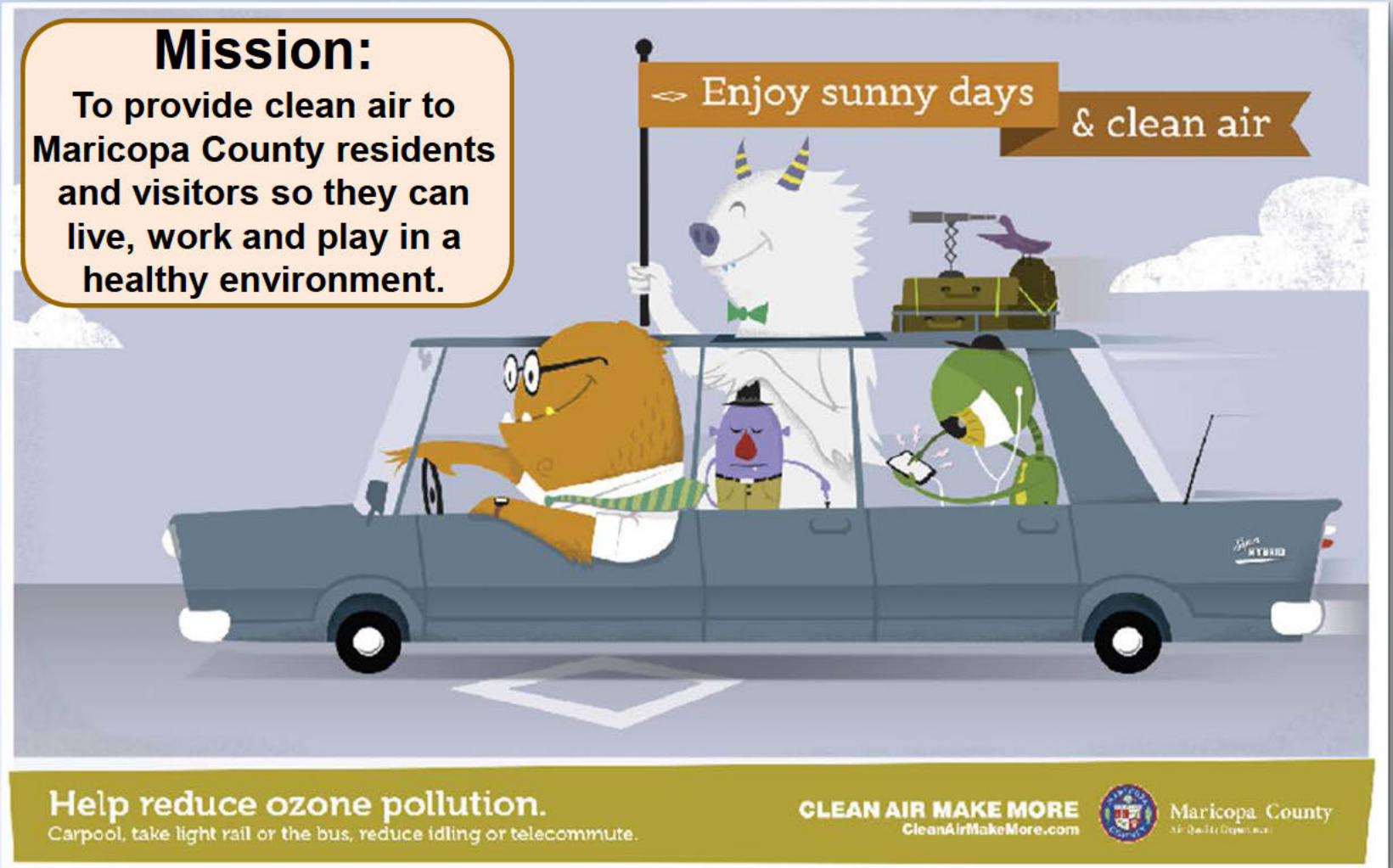
Maricopa County
Air Quality Department

Ozone Update

- Recent reclassification for the 2008 Ozone Standard – Moderate
- January 1, 2017 deadline to submit a Moderate Plan (Ozone SIP)
- Attainment Deadline for meeting 2008 Standard is July 2018
- Moderate Plan requires VOCs and NOx rules review for most recent CTGs and RACT – some of our rules do not meet current CTGs and RACT
- New Ozone Standard October 2015 – 70 ppb

Maricopa County
Air Quality Department



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Proposed Rule Revisions

Rule 140: Excess Emissions (Start-Up/Shutdown/Malfunction; Litigated)

Rule 316: Nonmetallic Mineral Processing (SIP Litigated)

Rule 322: Power Plant Operations

Rule 323: Fuel Burning From ICI Sources

Rule 324: Stationary Internal Combustion (IC) Engines

Rule 336: Surface Coating Operations

Rule 342: Coating Wood Furniture And Fixtures

Rule 345: Vehicle And Mobile Equipment Coating

Rule 350, 351, 352 and 353: Organic Liquids And Gasoline Rules

New Source Review Rules

Steps For The Proposed Rule Revisions

1-County Manager Briefed Board Of Supervisors	June 2015
2-County Stakeholder Workshops	June 2015 – March 2016
3-Stakeholder Notification 2 Weeks Before Board Of Health Meeting	April 2016
4-Board Of Health Meeting To Initiate Regulatory Change	April 2016
5-Specific Departmental Processes (Includes 30-Day Comment Period)	May 2016 – June 2016
6-Stakeholder Notification 2 Weeks Prior To Board Of Health Meeting	July 2016
7-Board Of Health Meeting To Make Recommendations To Board Of Supervisors	July 2016
8-Schedule Board Of Supervisors' Public Hearing	September 2016
9-Board Of Supervisors' Public Hearing	November 2016
10-Item Adopted	November 2016

Building Relationships

Maricopa County

MARICOPA COUNTY
ENHANCED REGULATORY OUTREACH PROGRAM

Maricopa County's Enhanced Regulatory Outreach Program (EROP) Departments seek to ensure the safety and well-being of our community. Because we understand that regulations and rule-making decisions, discussions, and meetings can be confusing, we have developed this web-site to allow citizens to easily monitor and engage in the adoption and amendment of all regulations.

AIR QUALITY · ENVIRONMENTAL SERVICES · FLOOD CONTROL · PLANNING & DEVELOPMENT · PROCUREMENT SERVICES · TRANSPORTATION

http://www.maricopa.gov/regulations/

Maricopa County
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Maricopa County

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Citizen Comments

Your input will be collected and forwarded to the appropriate department. We appreciate your comments and your time. If you prefer, you can send your comments via email.

Case Information

* ---------- Select Case # ----------

I would like to: * ------- Select -------

Your Information

First Name * Last Name *

Organization

City * Zip

Email *

Phone Number Phone Type: mobile work home

Would you like for someone to contact you? yes no

Comments

If you would like to attach supporting documentation associated with your comment, please click here.

Submit

http://www.maricopa.gov/regulations/comments.aspx

Air Quality Rules

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(602)506-6710

Maricopa County
Air Quality Department

Stakeholder Workshop 2

PROPOSED RULE 342:
COATING WOOD FURNITURE AND FIXTURES

December 17, 2015

Cheri Dale

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Maricopa County
Air Quality Department

Agenda

- Welcome
- Rule 342 Proposed Revisions
  - Revisions since Workshop 1 held on August 03, 2015
  - Stakeholder Comments
  - Additional Revisions for Consideration
  - Discussion
- Workshop 2 Summary

Revisions Since Workshop 1

- PROPOSE to change “no person shall” to “an owner or operator shall not…” throughout the rule.
- PROPOSE to change “subsection” to “section” throughout the rule.
- PROPOSE to delete duplicate Section 307.2(e) and Errata Note 1.
- PROPOSE to add title of EPA test methods in the following sections:
  - Section 502
  - Appendix A, Section g
  - Appendix C, Section e
- PROPOSE to remove past compliance dates throughout the rule.

Revisions Since Workshop 1

PROPOSE to add a table of applicable SIC codes to Section 102 APPLICABILITY

Table 342-1 APPLICABLE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES*

Standard Industrial Classification (SIC) code	SIC Title
2434	Wood Kitchen Cabinets
2511	Wood Household Furniture, Except Upholstered
2512	Wood Household Furniture, Upholstered
2517	Wood Television, Radio, Phonograph, and Sewing Machine Cabinets
2519	Household Furniture, Not Elsewhere Classified
2521	Wood Office Furniture
2531	Public Building And Related Furniture
2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers
2599	Furniture and Fixtures, Not Elsewhere Classified
2515	Mattresses, Foundations, and Convertible Beds

*Per the United States Department of Labor Occupational Safety and Health Administration. Web access at https://osha.gov/index.html

Revisions Since Workshop 1

PROPOSE to delete the definition of a low pressure spray gun and add the definition of an HVLP spray gun.

~~**219 LOW PRESSURE SPRAY GUN**: An air atomized spray gun which by design functions best at tip pressures below 10 psig (0.7 bar) measured according to subsection 502.2 of this rule, and for which the manufacturer makes no public claims that the gun can be used effectively above 12 psig (0.8 bar).~~

218 HIGH-VOLUME, LOW PRESSURE SPRAY GUN (HVLP): Spray application equipment designed to atomize 100 percent (100%) by air pressure only and is operated between 0.1 and 10 psig (0.7 bar) measured dynamically at the center of the air cap and at the air horns.

Revisions Since Workshop 1

~~Table 1~~

	~~Column A~~	~~Column B~~
	~~Lb VOC/lb solids~~	~~Grams VOC/liter **~~
~~Topcoat~~	~~1.8~~	~~635~~
~~Sealer~~	~~1.9~~	~~645~~
~~Acid-cured, alkyd amino topcoat~~	~~2.0~~	~~655~~
~~Acid-cured, alkyd amino vinyl sealer~~	~~2.3~~	~~680~~
~~**less non-precursor compounds & water~~		

Table 342-2 COATING MATERIAL VOC LIMITS FOR USE OF SPECIFIC FINISHING SYSTEM OF SEALERS

Finishing System Coating Materials:	**Lb VOC/lb solids As Applied**
Non-Acid Cured Sealer when used with Non-Acid Cured Topcoat	1.9 (Sealer) 1.8 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer and Acid-Cured Alkyd Amino Conversion Varnish Topcoat	2.3 (Sealer) 2.0 (Topcoat)
Non-Acid Cured Sealer when used with Acid-Cured Alkyd Amino Conversion Varnish Topcoat	1.9 (Sealer) 2.0 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer when used with Non-Acid Cured Topcoat	2.3 (Sealer) 1.8 (Topcoat)

Revisions Since Workshop 1

PROPOSE to revise the equipment capacity to no more than two gallons.

302 LIMITATION OF CONVENTIONAL AIR-ATOMIZED SPRAY AND OTHER SPRAY METHODS ATOMIZING WITH HIGH-PRESSURE AIR:

302.2 Limitation of Air-Atomized Spray other than Low Pressure: ~~No person~~ An owner or operator shall not use a conventional air-atomized spray gun or other restricted use gun, except: …

c. For touch-up and repair under either of the following conditions: …

(2) such application is performed after applying stain, and before any further coating, by equipment having a total capacity not exceeding ~~2.1 gallons (8 liters)~~ 2.0 gallons (7.57 liters).

Revisions Since Workshop 1

PROPOSE to add leak detection and repair requirements.

304 LEAK DETECTION AND REPAIR

304.1 Leak Inspection: An owner or operator shall conduct a visual inspection, at least once each calendar month, of all equipment used to transfer or apply finishing materials or organic solvents as specified in Section 403 of this rule.

304.2 Leak Repair: The owner or operator shall repair a leak within the time frames as listed below:

a. A first attempt to repair a leak shall be made no later than 5 working days after the leak was first detected.

b. Final repairs shall be made within 15 working days unless the leaking equipment is to be replaced by a new purchase, where repairs shall be completed within three months.

Revisions Since Workshop 1

PROPOSE to add leak detection inspection and repair record keeping requirements.

501.4 Leak Detection Inspection And Repair Records: The owner or operator shall maintain leak detection and repair records that document, at a minimum, the following:

a. Name of owner or operator conducting the leak detection inspection.

b. The date the inspection was conducted.

c. The equipment inspected.

d. Any leaks that were detected or, note if no leaks were detected.

e. If a leak was detected, then include all of the following information on the inspection record:

(1) The date the leak was detected.

(2) The date of the first attempt of repair.

(3) The results of the first attempt of repair.

(4) The date and results of subsequent repairs, if necessary.

(5) The results and date of the final repair.

Revisions Since Workshop 1

PROPOSE to add operator training requirements.

404 Operator Training Requirements: Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in finishing, adhesives, cleaning, and washoff operations, or the use of manufacturing equipment. Training records shall be maintained per Section 500 of this rule.

404.1 All personnel hired after [adoption date of this rule], shall be trained upon hiring.

404.2 All personnel hired prior to [adoption date of this rule], shall be trained by [six months after adoption date of this rule].

404.3 All personnel shall be given refresher training annually.

Revisions Since Workshop 1

PROPOSE to add training recordkeeping requirements.

501.5 **Training Records:** The owner or operator shall maintain a copy of the training program and shall include, at a minimum, the following:

a. A list of all current personnel by name and job description who are required to be trained;

b. An outline of the subjects to be covered in the initial and refresher training;

c. Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, all of the following information:

(1) Application techniques;

(2) Cleaning and washoff procedures;

(3) Equipment setup and adjustment to minimize finishing material usage and overspray; and

(4) Management of cleanup wastes; and

(5) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

Revisions Since Workshop 1

PROPOSE to add availability of information addresses.

502 COMPLIANCE DETERMINATION – TEST METHODS: ~~When more than one test method is permitted for a determination, an exceedance of the limits established in this rule, as determined by any of the applicable test methods, constitutes a violation of this rule.~~ An exceedance of the limits established in this Rule 342, determined by any of the applicable test methods, constitutes a violation of this rule. 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. These documents are available at the Maricopa County Air Quality Department, 1001 N. Central Ave., Phoenix, AZ 85004. 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.

Additional Revisions for Consideration

Comment: Make it clearer that the applicability is limited to facilities/commercial operations (and should not include consumer use in residential noncommercial settings)

Response: PROPOSE to reword applicability statement [in next draft].

102 APPLICABILITY: ~~The provisions of this rule apply~~ This rule applies to any ~~person~~ owner or operator coating wood furniture and fixtures at a manufacturing facility located in ~~facility in~~ Maricopa County ~~applying~~ that applies finishing material to furniture or fixtures ~~made~~ constructed of wood or wood derived material~~.~~ that are included, but not limited to , the Standard Industrial Classification (SIC) codes listed in Table 1 below .~~Simplified provisions of Appendix B in this rule may be used by facilities which agree to a permit limit of less than 10 tons of VOC emissions per year. For sources emitting less than 2 tons of VOC per year, consult subsection 307.2d. This rule does not apply to the coating of any millwork included under SIC #~~2431~~ .~~

102 APPLICABILITY: This rule applies to any owner or operator coating wood furniture and fixtures at a manufacturing facility located in Maricopa County, that applies finishing material to furniture or fixtures constructed of wood or wood derived material that are included, but not limited to, the Standard Industrial Classification (SIC) codes listed in Table 1 below.

Additional Revisions for Consideration

Comment: Make it clearer that the applicability is limited to facilities/commercial operations (and should not include consumer use in residential noncommercial settings).

Response: PROPOSE to reword purpose statement [in next draft] as follows:

> **101 PURPOSE:** To limit emissions of volatile organic compounds ~~from the surface preparation and coating of wood furniture and fixtures.~~(VOCs) from wood products coating operations; ~~and~~ from the organic solvent cleaning; and the storage and disposal of solvents and waste solvent materials associated with such coating operations .
>
> **101 PURPOSE:** To limit emissions of volatile organic compounds (VOCs) from wood products coating operations; from the organic solvent cleaning; and the storage and disposal of solvents and waste solvent materials associated with such coating operations.

Additional Revisions for Consideration

PROPOSE to move the following two sections into Proposed Table 342-2 for ease of reading.

Section 301.1.b Option: Lower VOC topcoat and Unlimited Sealer: There is no VOC limit on sealer when the sealer's topcoat does not exceed 0.8 lb VOC/lb solids (0.8 kg/kg).

301.2 Strippable Booth Coatings: No person shall use a strippable booth coating unless, as applied, the coating has either no more than 0.8 lb VOC/lb solids or no more than 3.0 lb/gal (360 g/l) less non-precursor volatile compounds.

Table 342-2 COATING MATERIAL VOC LIMITS FOR USE OF SPECIFIC FINISHING SYSTEM OF SEALERS

Coating Materials:	Lb VOC/lb solids As Applied
Sealer when used with Topcoat	No VOC Limit (Sealer) 0.8 (Topcoat)
Non-Acid Cured Sealer when used with Non-Acid Cured Topcoat	1.9 (Sealer) 1.8 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer and Acid-Cured Alkyd Amino Conversion Varnish Topcoat	2.3 (Sealer) 2.0 (Topcoat)
Non-Acid Cured Sealer when used with Acid-Cured Alkyd Amino Conversion Varnish Topcoat	1.9 (Sealer) 2.0 (Topcoat)
Acid-Cured Alkyd Amino Vinyl Sealer when used with Non-Acid Cured Topcoat	2.3 (Sealer) 1.8 (Topcoat)
Cleaning Material:	
Strippable Booth Coating	0.8

Additional Revisions for Consideration

PROPOSE to move the exemptions from Sections 102, 307.1 and 307.2 into PROPOSED new section of Rule 342, Section 103 EXEMPTIONS.

103 EXEMPTIONS:

103.1 Total Exemption:

a. This rule does not apply to the coating of any millwork …

b. **b.** The following materials are exempt from this rule:

(1) Adhesives; (2) Architectural coatings;(3) Printing ink; and (4) Coatings that are not applied on or over a wood product substrate.

103.2 Partial Exemptions:

a. Aerosol Spray Coating;

b. The following are exempt from the VOC limits in Section 302 of this rule, but shall comply with all other provisions of this rule:

(1) The annual total use… is less than 250 gallons (948 liters):[as listed out in Section 307.2.b(1)] .

(2) Refinishing, Replacement, and Custom Replica Furniture Operations:

(3) Stains, washcoats, glazes, toners, inks, and other coatings not specified in Section 302 of this rule.

(4) The coating for a single resin-layer finish … if all of the following conditions are met:[as listed out in Section 307.2.c]

(5) Small Source Status:[as listed out in Section 307.2.d]

Additional Revisions for Consideration

PROPOSE to add requirements for manufacturer's and suppliers to provide SDS or certified product data sheet.

301 MANUFACTURERS AND SUPPLIERS: A person selling, offering for sale, supplying for use, or manufacturing for sale within Maricopa County any VOC-containing material for use in wood coating operations shall provide a certified product data sheet or a safety data sheet (SDS) indicating, at a minimum, all of the following:

- The material name;
- Manufacturer's name;
- Specific mixing instructions (if applicable); and
- VOC content as supplied.

Additional Revisions for Consideration

PROPOSE to revise the following sections by listing out each requirement of the section.

- 302 Limitation Of Conventional Air-atomized Spray And Other Spray Methods Atomizing With High-Pressure Air
- 304.1 Booth Cleaning
- 304.2 Cleaning Guns and Lines

Additional Revisions for Consideration

PROPOSE to include requirements for cleaning and washoff accounting system. CTG Requirement

Additional Revisions for Consideration

PROPOSE to revise definitions to include SDS.

Additional Revisions for Consideration

PROPOSE to revise Section 501.1.

Additional Revisions for Consideration

PROPOSE to remove Green and Red tag requirements.

307.2.e. Using Conventional and other Restricted Use Guns; Red Tag…

Appendix B.d.(2) Green Tag Option: Restriction on conventional guns and other restricted use guns…

Additional Revisions for Consideration

Is Appendix A, Section j still valid since it is “Pre-RACT Coating use…”?

j. Pre-RACT Coating use is Limited : If a coating was used before 1993, and is still used for the same purposes, and it had a VOC content then which is lower than the neutral point for that coating type, then that coating may only be used in the averaging equation if the coating is now lower in VOC than before 1993. If that coating is used in averaging, the left side of the averaging formula must reflect the pre-RACT VOC content and not the current RACT neutral point for that type of coating. To effect this, additional mathematical terms must be added, one on the left and one on the right side of the formula. For example, if one can prove one used a high solids topcoat at 1.5 kg VOC/kg solids before 1993 (the year regulation negotiations began) and now thin the same product less so that it is consistently less than 1.5 kg/kg, one can enter it as a separate term. It appears in the formula below as “1.5(TU)” where “TU” stands for the total kilograms of solids of this unique topcoat used during an averaging day. “TU” appears on both sides of the inequality sign. ERu is the actual VOC content that was in this unique topcoat on a particular averaging day. Along with this, the meaning of the term (TCi) becomes slightly altered to mean the total topcoat solids used of every other topcoat beside the unique topcoat “U”:[formula not included in this slide]…

Similarly, any other unique coatings that meet such requirements and are used in averaging must each have its own set of two terms inserted into the averaging formula. Moreover, once a pre-RACT coating is used in averaging, the term for its VOC content must stay in the equation as long as that pre-RACT coating is used, even if one later needs to raise the VOC content of the pre-RACT coating to a level above its historical VOC content.

Workshop 2 Summary

- ✓ Recap of discussion items
- ✓ Next steps for Rule 342
- ✓ Stay Informed
- ✓ Questions?

QUESTIONS?
COMMENTS?
CONCERNS?

Compliance Rates

All Inspection Types	Year		To Date	
Status	2013	2014	2015	Grand Total
In Compliance	109	87	64	258
In Violation	42	21	13	76
Grand Total	151	108	77	336
	72.2%	80.6%	83.1%	77%
Violations of 342	12	5	4	21
	92.1%	95.4%	94.8%	94%

Rule 342, Section	Number of Violations
304.2	1
305	1
305.1	5
305.2	9
307.2(d)	1
307.2d(1)	1
501	1
Appendix B, d	1
Appendix B, f	1
TOTAL VIOLATIONS 2013-2015 TO DATE	21