

Proposed Amended Rule 1168: Adhesive and Sealant Applications

PUBLIC WORKSHOP

August 17, 2017
SCAQMD Auditorium

Background

2

- Rule adopted in 1989; last amended in 2005
- Most current limits established in 2000 - *No significant VOC reductions in 17 years*
- Applies to adhesives, adhesive primers, sealant, and sealant primers
 - All uses excluding products regulated by CARB
- Current emissions inventory estimated to be 10.5 tons per day (tpd)- previously estimated at 4.1 tpd
- Growth industry
 - Use increases with population
 - Increased interest in adhesives and sealants used for insulation/energy efficiency
- Significant advances in technology over the past decade
- Rule amendment process began in 2013

Public Process

3

2013/2014

- Survey
- Eight Working Group Meetings
- Six drafts of the rule and a preliminary draft staff report released
- Stakeholder meetings/comments
- Proposed 4.4 tpd total emissions reductions
 - 22 affected categories
 - Considered use of tBAC and DMC as an exempt VOC

2017

- Three Working Group Meetings
- Two drafts of the rule
- Preliminary Draft Staff Report
- Stakeholder meetings/comments
- Proposed 1.4 tpd total emissions reductions
 - 14 affected categories
 - tBAC and DMC not exempt VOC

Objective of Proposed Amended Rule 1168

4

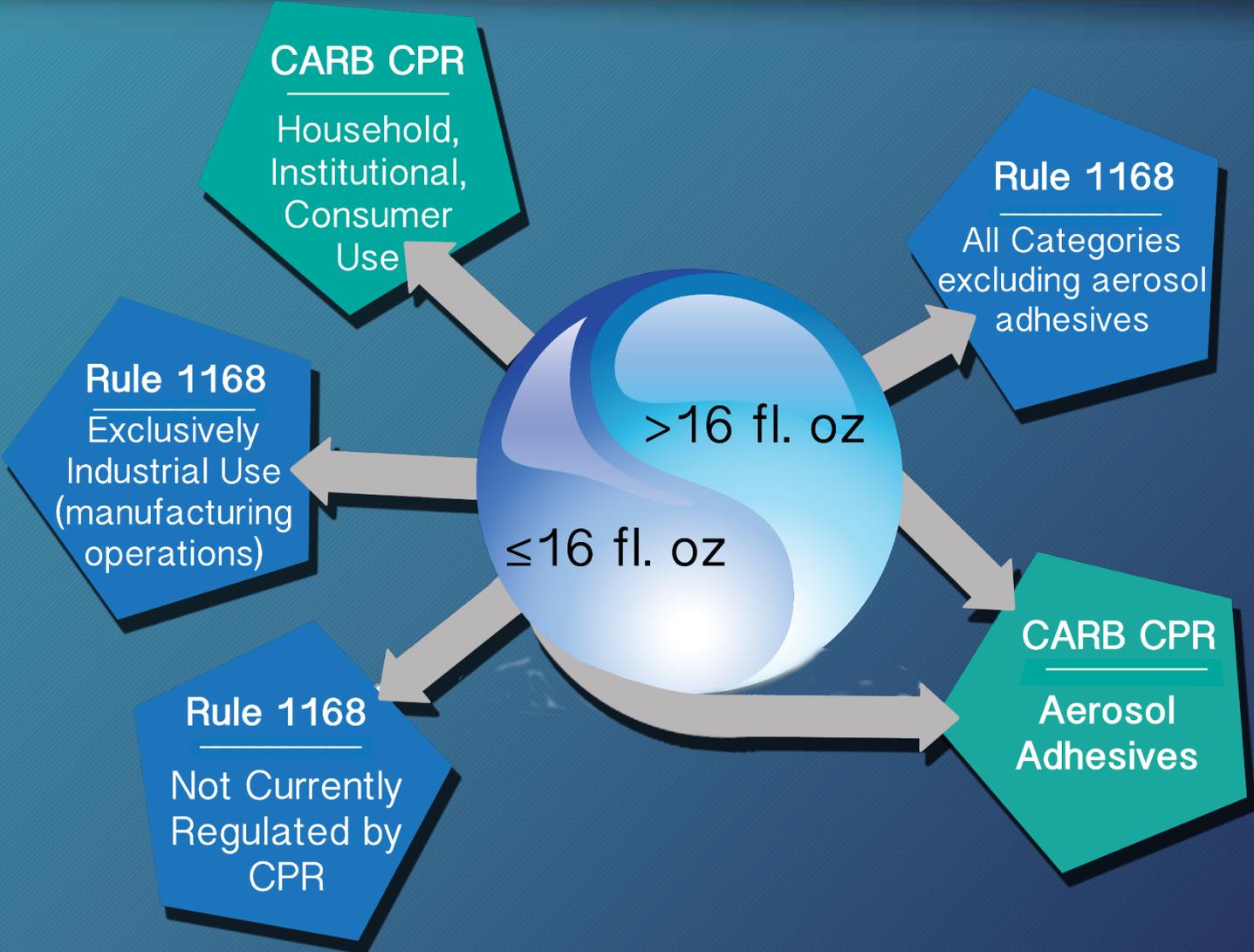
- VOC emission reductions needed to meet federal air quality standards and achieve healthy air
- VOC reductions effective for achieving 1979 1-hour ozone standard by 2022 and 1997 8-hour ozone standard by 2023
- Since 2000, Rule 1168 has not had significant
 - VOC reductions
 - Amendments or clarification to rule language
- Stakeholder support for updating rule language

Proposed Amended Rule 1168

5

- Purpose and Applicability
 - Clarify that the purpose of the rule is to reduce VOC and toxic air contaminants
 - Clarify that applicability applies to:
 - Manufacture, sale, and use of adhesives, adhesive primers, sealants, and sealant primers
 - Excludes regulated products
 - Exclusively for consumer or institutional use
 - Weigh one pound or less and consist of 16 fl oz or less
 - Have applicable VOC limit in the California Air Resources Board (CARB) Consumer Products Regulation (CPR)

Applicability



Proposed Amended Rule 1168 (Cont.)

7

- Definitions

- Delete definitions that restate dictionary definition or provide no additional insight
- Revise definitions to be more consistent with Ozone Transport Commission (OTC) and CARB
- Add definitions for terms or categories now referenced in the rule
- Added to assist with understanding applicability, administrative requirements, VOC table of standards



Definitions - Additions

8

To clarify meaning of terms within the rule:

- Adhesive Tape
- Ambient Reactive Cure Adhesive
- Architectural Appurtenance
- Big Box Retailer
- Building Envelope
- Consumer Products Regulation
- CPVC Welding Cement
- Dip Coat
- Distribution Center
- Electrostatic Application
- Energy Curable Adhesives and Sealants
- Establishments
- Flow Coat
- Institutional Use
- Insulating Foam
- Maintenance
- Manufacturing
- Marine Appurtenances
- Ozone-Depleting Compound
- Plastic Adhesive Primer
- Private Labeler
- PVC Welding Cement
- Regulated Product
- Repair
- Rubber
- Toll Manufacturer
- Toxic Air Contaminant (TAC)

Definitions – Additions (Cont.)

9

- New Categories:
 - ABS to PVC Transition Cement
 - Building Envelope Membrane Adhesives
 - Edge Glue
 - Foam Sealant
 - Grout
 - Non-Staining Plumbing Putty
 - Potable Water Architectural Sealant
 - Pressure Sensitive Adhesive
 - Rubber Vulcanization Adhesive
 - Vehicle Glass Adhesive Primer
 - Waterproof Resorcinol Glue

Definitions - Deletions

10

Deleted or Substituted:

- Adhesive Bonding Primer
- Adhesive Primer for Plastic
- Adhesive Promoter
- Adhesive Solid
- Aerosol Spray Can
- Aerospace Component
- Aircraft
- Aircraft Tire Repair
- Architectural Sealant or Sealant Primer
- Ceramic Tiles
- Coating Solid
- Foam
- Glue
- Light Curable Adhesives and Sealants
- Low-Solids Adhesive Primer
- Non-membrane Roof Adhesive/Sealant
- Orthotics and Prosthetics
- Polyurethane Foams
- Primer
- Propellant
- Rubber Foam
- Sheet Applied Rubber Lining Operation
- Space Vehicle
- Viscosity
- Wood Parquet Flooring
- Wood Plank Flooring

Definitions - Revisions

11

- Adhesive
- Adhesive Primer
- Aerosol Adhesive
- Architectural Application
- Ceramic, Glass, Porcelain, and Stone Tile Adhesive
- Contact Adhesive
- Cove Base
- Cyanoacrylate Adhesive
- Grams of VOC Per Liter of Regulated Product, Less Water and Less Exempt Compounds
- Grams of VOC Per Liter of Material
- Hand Application Methods
- High-Volume, Low-Pressure (HVLP) Spray
- Indoor Floor Covering Adhesive
- Low-Solids
- Marine Deck Sealant
- Marine Deck Sealant Primer
- Outdoor Floor Covering Adhesive
- Person
- Plastics
- Polyvinyl Chloride (PVC)
- Reactive Products
- Roll Coater
- Sealant
- Sealant Primer
- Single-Ply Roof Membrane Sealant
- Tire Tread Adhesive
- Traffic Marking Tape
- Traffic Marking Tape Adhesive Primer
- Transfer Efficiency
- Vinyl Compositions Tile

Proposed Amended Rule 1168 (Cont.)

12

- Requirements
 - Substitute the default VOC limit of 250 g/L (paragraph (c)(1)) to be included in the Table of Standards as “Other” category (e.g. all other adhesives and all other adhesive primers)
 - “Non-membrane sealants” replaced by “Other Roof Sealants”
 - Non-membrane adhesives captured under “Other Roof Adhesives”
 - Changed layout of the Table of Standards to include all categories

Category	VOC Limits (g/L)				
	Current (2005 Version)	Upon Adoption	1/1/2019	1/1/2021	1/1/2023
Adhesives					
Building Envelope Membrane Adhesive	250				
Other Outdoor Floor Covering Adhesives	150			50	
Other Roof Adhesive	250			200	
Single-Ply Roof Membrane Adhesive	250			200	
ABS to PVC Transition Cement Welding	250	510			325 ^a
CPVC Welding	490				325 ^a
PVC Welding	510				325 ^a
Other Plastic Welding	250		100 ^c		
Wood Flooring Adhesive	100			20	
Edge Glue	250				
Rubber Vulcanization Adhesive	250 ^b	850		250	
Top and Trim Adhesive	250 ^b	540			250 ^d
Waterproof Resorcinol Glue^c	250		170		
Substrate Specific Adhesive Applications					
Reinforced Plastic Composite^c	250		200		
Sealants and Caulks					
Clear, Paintable, Immediately Water-Resistant	250	380		250	
Foam Sealant	250	200			50 ^d
Grout	250	65			
All Other Roof	300			250	
Single-Ply Roof Membrane	450			250	
All Other Architectural Applications	250		50		
All Other Sealants	420			250	
Adhesive Primers					
Pressure Sensitive	250	785			
Vehicle Glass	250	700			

Table of Standards: Proposed Categories

- Contingent on ASTM change
- Predominantly sold under the 55 gals/year exemption
- EPA's RACM/BACM requirements
- Tech Assessment one year prior to January 1, 2023

Proposed Amended Rule 1168 (Cont.)

14

- Regulated Product Categorization
 - Moved and clarified the language regarding products that could fall under multiple categories
- Sell-Through Provision
 - 3 year Sell-through and Use-through for products manufactured prior to VOC limit change



Proposed Amended Rule 1168 (Cont.)

15

- Requirements are clarified for the following:
 - Solvent Cleaning is subject to Rule 1171 - *Solvent Cleaning Operations*
 - Transfer Efficiency excluding high viscosity products moved to paragraph (i)(14)
- Control Devices
 - Compliance with Reasonably Available Control Technology/Measures (RACT/RACM) requirement - increase VOC emission efficiency from 80% to 90/95%

Proposed Amended Rule 1168 (Cont.)

16

- Disposal of Regulated Products and VOC-Laden Cloth
 - Language modified for clarification
- Storage and Mixing
 - The proposed rule requires that containers for storage or mixing shall remain closed except while in use
 - Product storage restriction - non-compliant products cannot be stored on premises (e.g. in stock room), does not apply to:
 - Products sold for use outside SCAQMD
 - Facilities with control equipment (burden of proof on end user)

Proposed Amended Rule 1168 - Test Methods

17

- Standard Gravitational Method
 - EPA Method 24
 - Applicable to sealants
- Direct VOC Method
 - SCAQMD Method 313 - GC Method
 - Applicable to low-VOC, high water/exempt products
- Sandwich Methods
 - SCAQMD Method 316A - Pipe Fittings
 - SCAQMD Method 316B - Cyanoacrylate
 - Applicable to thin film adhesives/adhesive primers
 - No spacers
 - Appendix A to Subpart P of 40 CFR Part 63
 - Applicable to thick film adhesives/adhesive primers
 - 1/8" spacer

Administrative Requirements: Labeling

18

- Effective January 1, 2019, containers must include VOC content and manufacturing date, does not apply to:
 - Consumer products
 - Products sold in containers having capacities of one fluid ounce or less
- Higher-VOC niche category labeling requirements:
 - Top and Trim Adhesive
 - Rubber Vulcanization Adhesive
 - Pressure Sensitive Adhesive Primer
 - ABS to PVC Transition Cement

Administrative Requirements: Reporting

19

- Reporting:
 - Quantity and Emission Reports required every 3 years until 2025, every 5 years thereafter, sunset in 2040
 - Manufacturers and private labelers
 - Separate reporting requirements for aerosol and non-aerosol regulated products
 - Big Box Retailers and Distribution Centers
 - Report to manufacturer to assist in providing accurate sales for products shipped to distribution centers
 - Annual Report for End users utilizing 55 gallon/year exemptions

Administrative Requirements: Reporting

20

Reporting Timeline

Reporting Deadline	Big Box & Distribution Centers	Reported Years
September 1, 2019	May 1, 2019	2016, 2017, 2018
September 1, 2022	May 1, 2022	2019, 2020, 2021
September 1, 2025	May 1, 2025	2022, 2023, 2024
September 1, 2030	May 1, 2030	2027, 2028, 2029
September 1, 2035	May 1, 2035	2032, 2033, 2034
September 1, 2040	May 1, 2040	2037, 2038, 2039

Administrative Requirements: QER

21

- Product manufacturer (as labeled)
- Product name and code
- Applicable Rule 1168 category
- Regulatory VOC content
- Material VOC content
- Utilization of Sell-Through Provision
- Designation as to whether or not the product is Low Solids
- Product type (water/solvent based)
- Volume sold into or within the District, reported in gallons of container size



Administrative Requirements: Reporting

22



- Aerosol adhesive and aerosol adhesive primer Quantity and Emission Report
 - Product manufacturer
 - Product name and code
 - VOC content, *in weight percent*
 - Total weight sold
 - Container size of product
- Would consider allowing volumes to be estimated based on CA population

Proposed Amended Rule 1168 (Cont.)

23

- Prohibition of sale and use excludes products:
 - Subject to the CARB CPR
 - Products sold for use outside SCAQMD
- Prohibits use of Group II exempt solvents except volatile methyl siloxanes
- Sunset prohibition of sale for solvent welding operations containing methylene chloride January 1, 2021

Exemptions

24

- Modified language regarding the CARB CPR applicability to excludes maintenance and repair
- Streamlined recordkeeping options for regulated products with VOC content of 20 grams per liter (g/L) or less
- 55 gal/year exemption restricted to excluding Top & Trim Adhesive and Rubber Vulcanization Adhesive- effective January 1, 2018 *(received request to extend one year)*

Exemptions

25

- Amend the exemption for regulated products shipped out of SCAQMD jurisdiction to require manufacturers and suppliers to maintain notification letters
- Exempt distribution centers that do not ship regulated products into or within the SCAQMD
- Exempt regulated products:
 - Offered for sale as dry mix
 - Used in field installation and repair of potable water linings and covers at water treatment, storage or water distribution facilities

Stakeholder Key Concerns

26

- Expanding scope of Rule 1168
 - Not expanding, but codifying how the rule is already enforced
 - Supported by CARB Correspondence Letters
- Initial proposal to limit aerosol use
 - Aerosol exemption retained, but still subject to new reporting requirements
- Providing accurate sales volume for aerosol adhesives and adhesive primers
 - District staff will consider aerosol reporting to be based on population
- Include CARB 310 test method for aerosols
 - Aerosol exemption is retained so testing should not be an issue
 - SCAQMD laboratory developing a new test method for *aerosol* foam sealants

Stakeholder Key Concerns (Cont.)

27

- Reporting requirements too burdensome
 - Staff needs accurate inventory data for planning purposes
 - Emission inventory from 2016 AQMP was underestimated (4.1 tpd versus 10.5 tpd estimated from the survey)
 - Growth industry
 - Frequency of reporting has been lessened over several rule proposal changes
 - Included a sunset date
- Reporting accurate sales into the District would be difficult
 - Staff included requirements for Big Box retailers and distribution centers to assist manufacturers and private labelers to comply

Stakeholder Key Concerns (Cont.)

28

- Allow products to be grouped in QER
 - Based on past experience, grouping is difficult to track and report
 - Compliance staff must be able to determine if products found in the field have been reported
- Allow aerosol QER to be based on VOC weight percent
 - Proposed rule modified to allow weight percent for aerosol QER
 - Proposed rule allows annual sales in pounds instead of gallons

Stakeholder Key Concerns (Cont.)

29

- Remove Equivalent and Multiple Test Method subparagraphs
 - Equivalent Test Method provision provides flexibility for emerging technologies and/or niche products
 - Staff is evaluating Multiple Test Method requirement
 - Staff will develop a guidance document that states which test method should be utilized for each regulated product

Stakeholder Key Concerns (Cont.)

30

- Delay effective dates for certain VOC limit reductions
 - Received feedback supporting feasibility of dates for several categories
 - Some effective dates have been delayed from original proposal
- VOC Limits are not feasible for various categories
 - Technology assessments proposed where there is not a large volume of future complaint products
 - Considering higher final VOC limit for pipe cements (400 g/L for CPVC from 490 g/L; 425 for PVC and ABS to PVC Transition Cement from 510 g/L) to ensure product stability and ASTM compliance

Stakeholder Key Concerns (Cont.)

31

- Rule applicability and compliance should be determined by use and is not manufacturer's responsibility
 - Rule compliance determination is based on both appropriate product labeling (*manufacturer*) and product use (*user*)
 - Manufacturer is responsible for reporting applicable categories and subject to most restrictive VOC limit
 - Not the manufacturer's responsibility if a product is used in a non-compliant manner unless the manufacturer recommended it for that use

California Environmental Quality Act (CEQA)

32

- California State Law adopted 1970
- Purpose [*CEQA Guidelines § 15002(a)*]
 - Inform governmental decision-makers and public about potential significant effects of projects
 - Identify ways to avoid or reduce adverse impacts
 - Require feasible alternatives and mitigation measures to prevent significant environmental damage
 - Disclose to the public why a project was approved
- Applies to projects undertaken by a Public Agency such as SCAQMD adoption of rules [*CEQA Guidelines § 15002(b)*]
 - Required to comply with CEQA when approving a project [*CEQA Guidelines § 15002(d)*]
 - Required for discretionary approvals [*CEQA Guidelines § 15002(i)*]
- Lead Agency = SCAQMD
 - Oversight and legal responsibility for appropriate CEQA document preparation, circulation, response to comments, and approval/certification

CEQA (Continued)

33

- PAR 1168 is a project subject to CEQA
- Decision to prepare 30-day Draft Environmental Assessment (EA)
 - Equivalent to a Negative Declaration when no significant impacts identified
 - No CEQA scoping meeting is required to be held
 - Analysis of alternatives and mitigation measures not required
 - Will contain project description (Chapter 1) and environmental checklist (Chapter 2) to evaluate project's impacts on 17 topic areas
 - Was released for 30-day public review period from August 16, 2017 to September 15, 2017
- Final EA
 - Will include responses to Draft EA comment letters and any necessary modifications to Draft EA
 - Governing Board must certify Final EA

Contacts

34

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Schedule

35



- Comments Due August 31, 2017
- Set Hearing September 1, 2017
- CEQA Comments Due September 14, 2017
- Stationary Source Committee September 15, 2017
- Public Hearing October 6, 2017