



Proposed Amended Rule 1168 – Adhesive and Sealant Applications

Public Workshop

September 1, 2022, 10:00 AM (PDT)

Join zoom meeting:

[https://scaqmd.zoom.us/j/955 2317 0208](https://scaqmd.zoom.us/j/95523170208)

Meeting ID: 955 2317 0208

Agenda

Background

Public Process

Proposed Amended Rule

Stakeholder Comments

California Environmental Quality Act

Socioeconomic Analysis

Next Steps

Background on Rule 1168

- Rule adopted in 1989; last amended in 2017
 - Prior to the 2017 amendment, no significant VOC reductions in 17 years
- Applies to 59 categories of adhesives, adhesive primers, sealants, and sealant primers
- Applies to products used during manufacturing operations and to consumers products not regulated by the California Air Resources Board
- Current emissions inventory estimated: 6.2 tons per day (tpd) of VOC
- Last amendment projected to reduce VOC emissions by 1.4 tpd

2017 Rule 1168 Amendment

Included lower VOC limits for 20 categories and required manufacturers to submit Quantity and Emission Reports (QER) of products sold into and within the South Coast AQMD

Most VOC limits reflected new technology in the marketplace and were based on market penetration of lower-VOC products

In some instances, VOC limits were based on manufacturer feedback on emerging products

- Products may not have been widely available
- Future effective VOC limit set a target for industry to work towards
- Staff recommended an extended implementation period and a technology assessment

Rule included requirement for staff to conduct technology assessment of certain categories to assess progress toward VOC limits and report back to Governing Board

Based on technology assessment, staff concluded a rule amendment was required

Background on Current Rule Amendment

Technology Assessment

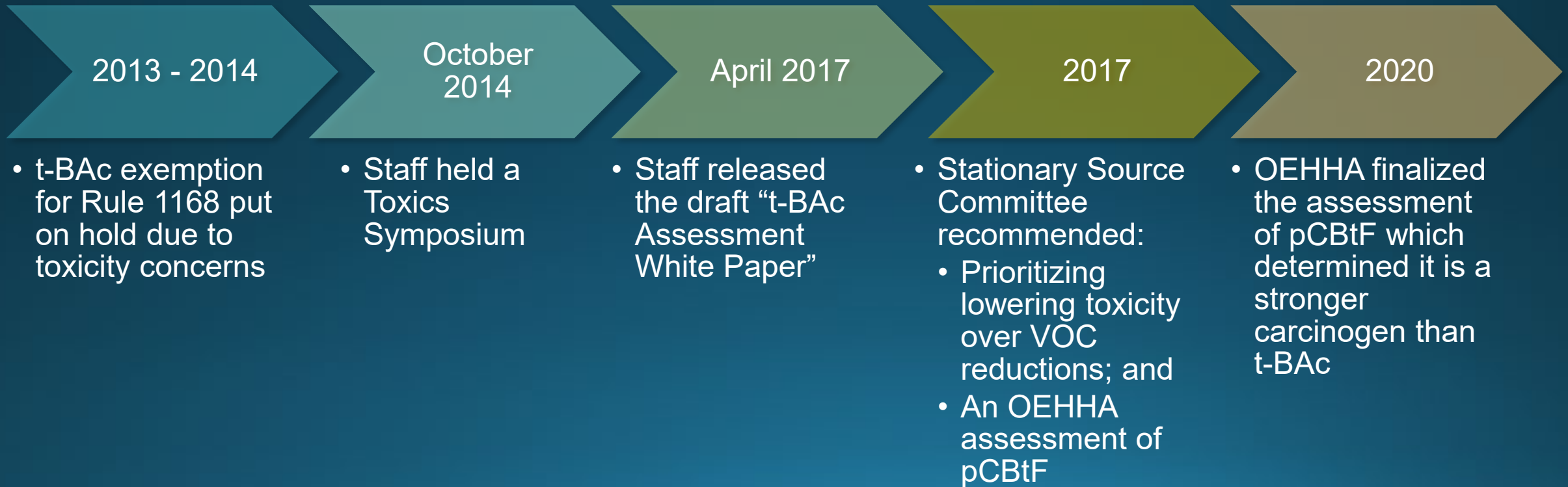
- 2017 amendment required a technology assessment for:
 - Top and Trim Adhesives
 - Roofing products
 - Plastic Welding Cements
 - Foam Sealants

Toxicity of Currently Exempt Compounds

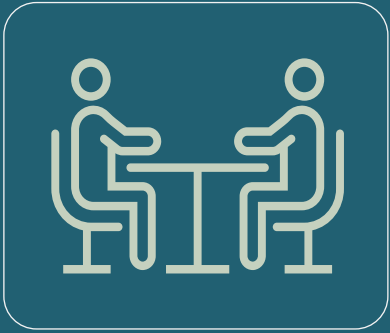
- Based on Board recommendations, staff prioritizing low toxicity over low photochemically reactive compounds, e.g., t-BAC and pCBtF

Background on Solvent Toxicity Concerns

- tertiary-Butyl Acetate (t-BAc) - VOC-exempt solvent in a few rules but not in Rule 1168
- para-Chlorobenzotrifluoride (pCBtF) - VOC-exempt solvent in Rule 102, applied to all VOC rules



Public Process



Staff has been meeting regularly with industry stakeholders and their representatives since November 2021, including:

- Roofing associations, Adhesive and Sealant Council (ASC), Plastic Pipe and Fittings Association (PPFA), Single Ply Roof Industry (SPRI), Foam Industry stakeholders, and manufacturers from different regulated product categories



Discussed individual meetings analysis findings and staff considerations in public meetings

- Four Working Group Meetings since February 2022
 - February 11, April 12, July 21, and August 11

Rule Approach

- Staff assessed:
 - VOC levels of existing products based on QERs
 - pCBtF usage and the potential health risk
- Proposed amendments will be focused on:

VOC limits and effective dates for several product categories or new subcategories

Prohibition of t-BAc and pCBtF

Rule clarification and streamlining

Proposed Amended Rule

Purpose (a) and Applicability (b)

- The purpose and applicability are currently both under subdivision (a)
- Most recent rules include them in separate subdivisions
- Proposed amendment:
 - Separates the applicability to a new subdivision; and
 - Clarifies the applicability by included a reference to stationary sources

Purpose and Applicability (a) and (b)

(a) Purpose ~~and Applicability~~

The purpose of this rule is to reduce emissions of volatile organic compounds (VOCs), toxic air contaminants, and stratospheric ozone-depleting compounds from the application of adhesives, adhesive primers, sealants, and sealant primers. ~~This rule applies to any person who uses, sells, stores, supplies, distributes, offers for sale, or manufactures for sale any adhesives, adhesive primers, sealants, or sealant primers, unless otherwise specifically exempted by this rule.~~

(b) Applicability

This rule applies to any person who uses, sells, stores, supplies, distributes, offers for sale, or manufactures for sale any adhesives, adhesive primers, sealants, or sealant primers; and any owner or operator of a stationary source within the South Coast AQMD conducting operations which include the use of adhesives, adhesive primers, sealants, or sealant primers; unless otherwise specifically exempted by this rule.

Definitions (c)

- Proposed amendment includes new categories and subcategories requiring seven new definitions

Definitions (c)

(19) CPVC WELDING CEMENT FOR LIFE SAFETY SYSTEM is a CPVC welding cement with an increased resistance to high temperatures which is used for life safety systems, including standalone and multipurpose fire sprinkler systems.

(44) HIGHER VISCOSITY CPVC WELDING CEMENT is a CPVC welding cement with a viscosity greater than or equal to 500 centipoise.

(45) HOT APPLIED MODIFIED BITUMEN/BUILT UP ROOF ADHESIVE is a thermoplastic substance which requires high temperature conversion to a fluid at the point of application and complies with ASTM D312. Installation or repair includes the application of roofing installation, roofing ply sheets, roofing membranes, and aggregate surfacing.

(42) HIGH-PRESSURE TWO-COMPONENT FOAM SEALANT is a foam sealant packaged as two containers and applied using a propellant system that is pressurized to greater than or equal to 250 psi.

(47) LOW-PRESSURE TWO-COMPONENT FOAM SEALANT is a foam sealant packaged as two containers pressurized to less than 250 psi.

(58) ONE-COMPONENT FOAM SEALANT is a foam sealant packaged in aerosol containers and dispensed using propellant under pressure.

(90) SHINGLE LAMINATING ADHESIVE is an asphalt based adhesive used to adhere individual layers during the manufacture of multi-layer asphalt shingles.

Requirements (d)

(ed) Requirements

(1) A person shall not use, sell, store, supply, distribute, offer for sale, or manufacture **R**egulated **P**roducts subject to the provisions of this rule, which contain VOC in excess of the limits specified in Table 1 below:

Table 1 – Regulated Product Categories and VOC Limits

Category	VOC Limits (g/L, <u>unless otherwise indicated</u>) ¹			Future Effective Date ^{1A/} 2019	1/1/2023
	Current Limit	Limit Effective 1/1/2023	Limit at Future Effective Date Upon Adoption		
Adhesives					
Architectural Applications					
Building Envelope Membrane Adhesive	250				
Carpet Pad Adhesive	50				
Ceramic Glass, Porcelain, & Stone Tile Adhesive	65				
Cove Base Adhesive	50				
Dry Wall and Panel Adhesive	50				
Multi-Purpose Construction Adhesives	70				
Roofing					
Hot Applied Modified Bitumen/Built Up Roof Adhesive	250	30			

- Subdivision (d) includes the Table of Regulated Product Categories and VOC limits
- Proposed amendment revises Table 1 to:
 - Reflect the proposed new VOC limits and effective dates for some categories and new subcategories; and
 - Change the gram per liter metric to weight percent limit for foam sealants and foam insulation
- The following slides explain the proposed revision for each category or subcategory
- A summary of the revision to Table 1 is provided on a later slide

Top and Trim Adhesives

- Products complying with the 540 g/L VOC have been commercialized, resulting in VOC emission reductions
- Reformulating to the 540 g/L was successful
 - Supply chain issues and price spikes created challenges to achieve lower limits
- Reformulating to 250 g/L has not yet been successful
 - Products do not perform to the necessary standards
 - Manufacturers need more time to reformulate to 250 g/L

Existing Limits		Proposed Limits		Delayed Emission Reductions (tpd)
Current Limit	Limit Effective 1/1/2023	Upon Adoption	Limit Effective 1/1/2028	
540 g/L	250 g/L	540 g/L	250 g/L	0.1

Weight Percent Limit For Foam Sealants And Foam Insulation

- Current regulatory standard is in gram per liter (g/L), less water and exempt compounds
 - Complicated to calculate or measure for pressurized products, especially with VOC-containing propellant
 - May lead to confusion and/or sale of non-compliant products
- Staff is proposing:
 - A weight percent limit for foam sealants and foam insulation
 - Approximate conversion of 10 g/L to 1 percent by weight
 - Safety Datasheets (SDS) for foam products that list VOC content in g/L and weight percent confirm conversion
 - Considering alternative weight percent metric for all categories
 - Many other categories include a pressurized products
 - Liquid products would be required to comply with the g/L limit, pressurized products would be required to comply with the weight percent limit

Foam Sealants

UPDATED

- Majority of the One-Component Foam Sealants are less than 180 g/L (18%)
- All reported Two-Component Foam Sealants are meeting the 50 g/L
- Stakeholders suggested to establish separate subcategories for Low-Pressure and High-Pressure Two-Component Foam Sealants
- Staff proposes the following emission limits, effective dates, and subcategories
- Staff is considering collapsing high-pressure and low-pressure foam sealants as one item in the Table of Standards since they have the same VOC limit

Foam Sealant Categories	Existing Limits		Proposed Limits			Foregone Emission Reductions (tpd)
	Current Limit	Limit Effective 1/1/2023	Upon Adoption	Future Limit	Effective Date	
One-Component	250 g/L	50 g/L	250 g/L	18%	7/1/2023	0.12
High-Pressure	250 g/L	50 g/L	250 g/L	5%	1/1/2023	N/A
Low-Pressure	250 g/L	50 g/L	250 g/L	5%	1/1/2023	N/A

Plastic Welding Cements

- Most products have been reformulated to meet the January 1, 2023 future effective date
- CPVC solvent cement for “Life Safety Systems” have not been successfully reformulated
 - Stakeholders cited technical challenges and high certification cost associated
 - Staff proposing to maintain 490 g/L limit for this subcategory
- “Higher Viscosity CPVC” also have not been successfully reformulated but many products almost ready
 - Staff proposing to allow additional time to comply with lower VOC limits

Categories	Existing Limits		Proposed Limits			Delayed Emission Reductions (tpd)
	Current Limit	Limit Effective 1/1/2023	Upon Adoption	Future Limit	Effective Date	
PVC	510 g/L	425 g/L	No Proposed Change			N/A
CPVC	490 g/L	400 g/L	No Proposed Change			N/A
CPVC Life Safety Systems	490 g/L	400 g/L	490 g/L	N/A		0.01
Higher Viscosity CPVC	490 g/L	400 g/L	490 g/L	400 g/L	7/1/2024	0.007

Roofing Adhesives

- Stakeholders indicated there are challenges meeting the limits if pCBtF is prohibited, especially for roofing products
- Staff proposing to maintain the 250 g/L limit for “Single Ply Roof Membrane Adhesive” and “All Other Roof Adhesives” (limit effective since 1993) and not require reformulation to 200 g/L limit
 - 11 out of 64 products for Single Ply (no product for All Other) are found to contain pCBtF
 - Based on 2017/2018 QERs, majority of the products are in the 241-250 g/L range

Categories	Existing Limits		Proposed Limits			Foregone Emission Reductions (tpd)
	Current Limit	Limit Effective 1/1/2023	Upon Adoption	Future Limit	Effective Date	
All Other Roof Adhesives	250 g/L	200 g/L	250 g/L	N/A		0.03
Single-Ply Roof Membrane Adhesive	250 g/L	200 g/L	250 g/L	N/A		0.07

Roofing Adhesives

- Staff proposing two new subcategories based on stakeholder feedback
 - Shingle Laminating Adhesive
 - Hot Applied Modified Bitumen/Built Up
- The 30 g/L VOC limit reflects the VOC content of existing products

Categories	Existing Limits		Proposed Limits		Foregone Emission Reductions (tpd)
	Current Limit	Limit Effective 1/1/2023	Future Limit	Effective Date	
Shingle Laminating Adhesive	250 g/L	200 g/L	30 g/L	1/1/2023	N/A
Hot Applied Modified Bitumen/Built Up	250 g/L	200 g/L	30 g/L	1/1/2023	N/A

Roofing Sealants

- Stakeholders indicated pCBtF prohibition will impact ability to comply with future limits but to date have not identified many products being sold into the South Coast AQMD that contain pCBtF
 - Based on data provided in QERs for “All Other Roofing Sealants”
 - One out of 37 products contain pCBtF
 - Based on the products reported in the QERS, staff proposes to revert back to the 300 g/L (limit effective since 1998)
 - Based on data provided in QERs for “Single-Ply Roof Membrane Sealant”
 - Two out of 58 products reported in QERs contain pCBtF
 - Majority of products meet 250 g/l
 - Staff proposes to retain 250 g/L limit

Roof Sealant Categories	Existing Limits		Proposed Limits			Foregone Emission Reductions (tpd)
	Current Limit	Limit Effective 1/1/2023	Upon Adoption	Future Limit	Effective Date	
All Other Roof Sealants	300 g/L	250 g/L	300 g/L	N/A		0.01
Single-Ply Roof Membrane Sealants	450 g/L	250 g/L	No Proposed Change			N/A

Requirements (d) – Summary of Proposed Amendments

Category	Limit effective 1/1/2023	Proposed Subcategory	Future Proposed Limits	Effective Date
Top and Trim	250 g/L	N/A	250 g/L	1/1/2028
Foam Sealant	50 g/L	One-Component	18 %	7/1/2023
		High-Pressure Two-Component	5 %	1/1/2023
		Low-Pressure Two-Component	5 %	1/1/2023
PVC Welding Cement	425 g/L	N/A	425 g/L	1/1/2023
CPVC Welding Cement	400 g/L	CPVC	400 g/L	1/1/2023
		Life Saving Systems - CPVC	490 g/L	Upon Adoption
		High Viscosity CPVC Welding Cement	400 g/L	7/1/2024
All Other Roofing Adhesive	200 g/L	All Other Roofing Adhesives	250 g/L	Upon Adoption
		Shingle Laminating Adhesive	30 g/L	1/1/2023
		Hot Applied Modified Bitumen/Built Up Roof Adhesive	30 g/L	1/1/2023
Single Ply Roof Membrane Adhesive	200 g/L	N/A	250 g/L	Upon Adoption
All Other Roofing Sealant	250 g/L	N/A	300 g/L	Upon Adoption
Single Ply Roof Membrane Sealant	250 g/L	N/A	250 g/L	1/1/2023

Reporting and Recordkeeping Requirements (e)

- Rule 1168 includes two recordkeeping provisions:
 - Manufacturers, big box retailers, and distributors must retain records to support the data reported in the QERs;
 - Owners or operators of stationary sources that use adhesives or sealants to manufacture products must maintain records pursuant to Rule 109 – Recordkeeping for Volatile Organic Compound Emissions
- Current rule specifies reporting and recordkeeping under subdivisions (f) and (d) and does not specify that the Rule 109 only applies to stationary sources
- For the rule streamlining and clarification, staff is proposing to:
 - Combine the reporting and recordkeeping requirements under subdivision (e)
 - Specify that the Rule 109 reporting requirement only applies to stationary sources
 - Include specific recordkeeping requirements for all required reporting provisions

Reporting and Recordkeeping Requirements (e) - (e)(4) and (e)(6)

- In addition, in paragraphs (e)(4) and (e)(6), staff proposes to clarify that:
 - Big box retailers, distribution centers, and facilities using the 55 - gallon exemption must maintain records to verify all required data being reported for three years and make them available upon request by the Executive Officer
 - Yellow highlighted text is newly added language

Reporting and Recordkeeping paragraphs (e)(4) and (e)(6)

(4) Big Box Retailer or Distribution Center QER

A big box retailer or distribution center shall submit a QER to the Regulated Product manufacturer or private labeler, according to the schedule in Table 2 and maintain records to verify all required data being reported for three years and make them available upon request by the Executive Officer.

The QER must be electronically submitted, in a spreadsheet format and certified that all information reported is true and correct. The QER must contain the following information:

(6) Facilities Using the 55--Gallon Exemption

For each calendar year (January 1 through December 31) the facility using or purchasing Regulated Products under the provisions of paragraph (j)(5)(C) shall submit to the South Coast AQMD by September 1 of the following calendar year, an annual report of Regulated Product used under the provisions of paragraph (j)(5)(C) within the South Coast AQMD and maintain records to verify all required data being reported for three years and make them available upon request by the Executive Officer. The report shall include the following information:

Administrative Requirements (g)

- This subdivision includes labeling and QER requirements
- As mentioned, staff proposes to move the QER requirements to subdivision (e)
- Staff also proposes to add labeling requirements for two new CPVC subcategories
 - CPVC For Life Safety Systems
 - Higher Viscosity CPVC Welding Cement

Labeling requirements for two new CPVC subcategories (g)(6) and (g)(7)

- (6) Effective July 1, 2023, each container of CPVC For Life Safety Systems shall include the statement “For CPVC Life Safety System Uses Only” prominently displayed.
- (7) Effective July 1, 2023, each container of Higher Viscosity CPVC Welding Cement shall include a statement prominently displayed on the label to indicate if the product is formulated for “Medium” or “Heavy” or “Extra Heavy” applications.

Administrative Requirements (g) (cont.)

- As discussed previously, staff is proposing to update the VOC content metric for foam products from g/L to the weight percent
- The proposal will be incorporated under clause (g)(1)(A)(ii)

VOC metric for foam products
(g)(1)(A)(ii)

(ii) Effective July 1, 2023, Foam Insulation, One-Component Foam Sealants, High-Pressure Two-Component Foam Sealants, and Low-Pressure Two-Component Foam Sealant shall display the VOC as percent VOC by weight; and. ~~The VOC content shall be determined by calculation based on product formulation or laboratory analysis using the applicable test method in subdivision (e)(f).~~

Prohibition of Sales and Use (h)

- Current rule prohibits the sale and use of regulated products containing:
 - Chemicals listed under paragraph (h)(1); or
 - Group II exempt solvents except volatile methyl siloxanes (VMS) specified under paragraph (h)(2)
- The Group II exempt solvent prohibition was included during the 2017 amendments and includes an archaic effective date – January 1, 2019
- Staff proposing to combine the current prohibitions into one paragraph (h)(1) and remove the archaic effective date

Prohibition of Sales and Use (h)

- Proposing to prohibit the use of t-BAc and pCBtF under paragraph (h)(2)
 - Effective January 1, 2025 for Single Ply Roof Membrane Adhesives; and January 1, 2024 for all others
 - Includes a three-year sell through and a four-year use through provision for products manufactured prior to the effective date
- Proposal based on staff's assessment of t-BAc and pCBtF health risk and the Stationary Source Committee's direction regarding exempt compounds with toxic endpoints

Prohibition of Sales and Use (h)(2)

- (2) Prohibition of tertiary-Butyl Acetate and parachlorobenzotrifluoride
- (A) On and after January 1, 2024, no person shall manufacture for sale any Regulated Product in the South Coast AQMD that contains more than 0.01 percent of tertiary-Butyl Acetate or parachlorobenzotrifluoride.
- (B) Notwithstanding paragraph (h)(2)(A), on and after January 1, 2025, no person shall manufacture for sale Single Ply Roof Membrane Adhesives in the South Coast AQMD that contains more than 0.01 percent parachlorobenzotrifluoride
- (C) Three years after the applicable effective date specified in subparagraphs (h)(2)(A) or (h)(2)(B), no person shall supply, sell, or offer for sale a Regulated Product in the South Coast AQMD that contains more than 0.01 percent of tertiary-Butyl Acetate or parachlorobenzotrifluoride.
- (D) Four years after the applicable effective date specified in subparagraphs (h)(2)(A) and (h)(2)(B), no person shall use a Regulated Product in the South Coast AQMD that contains more than 0.01 percent of tertiary-Butyl Acetate or parachlorobenzotrifluoride.

Exemptions (j)

- The current rule provides an exemption from VOC emission limits and Rule 109 recordkeeping requirements for regulated products with a VOC content no more than 20 g/L
 - Some Rule 1168 VOC limits are 20 g/L; and
 - Current exemption is not specific to stationary sources
- Staff proposing to:
 - Change the exemption to only apply to products less than 5 g/L
 - Clarify the exemption is only for stationary source recordkeeping requirements

Recordkeeping exemption (j)(8)

- (8) The recordkeeping provisions ~~of subdivisions (d) and (e)~~ in paragraph (e)(7) shall not apply to an owner or operator of a stationary source within the South Coast AQMD using Regulated Products with a VOC content no more than 20 5 grams per liter, less water and less exempt compounds, or no more than 20 5 grams per liter material for low-solids Regulated Products.

Exemptions (j) (cont.)

- Paragraph (j)(9) allows the use of methylene chloride, a prohibited compound, in solvent welding formulations until January 1, 2021
 - Provision is archaic
- Staff is proposing to remove paragraph (j)(9)

Removed exemption

- ~~(9) — Until January 1, 2021, the provision of paragraph (g)(1) and (g)(2) shall not apply to solvent welding formulations containing methylene chloride used to bond hard acrylic, polycarbonate, and polyethylene terephthalate glycol plastic fabrications, provided:~~
- ~~(A) — The concentration of methylene chloride in any solvent welding formulation does not exceed 60 percent by weight; and~~
- ~~(B) — The purchase of all solvent welding products does not exceed 20 gallons per calendar year at a single facility, as demonstrated by purchase records and invoices of methylene chloride containing solvent welding formulations. Such records shall be made available to the Executive Officer upon request.~~

Stakeholder Key Concerns

Prohibition of t-BAc and pCBtF – Impact on Roofing Products

Stakeholder Concern

- pCBtF is currently a VOC-exempt solvent used in Rule 1168 regulated products
- Stakeholders have stated that many products will not be able to meet the current or proposed VOC limits without using pCBtF
- Requested more time to reformulate the products and/or higher VOC limits

Prohibition of t-BAc and pCBtF – Impact on Roofing Products (*cont.*)

Staff response

- Based on staff research and stakeholder feedback, pCBtF mainly used in roofing products, primarily Single Ply Roof Membrane Adhesives
- pCBtF was included in Rule 102 as an exempt solvent in 1995
- Staff is proposing to maintain the 250 g/L VOC limit for Single Ply Roof Membrane Adhesives that has been in effect since 1993 prior to pCBtF exemption
- For Single-Ply Roof Membrane Sealants, analysis shows majority of products are currently meeting the 250 g/L limit
- Staff understands some products will be impacted by the prohibition; however:
 - Health benefit of removing toxic compounds would outweigh the market impact; and
 - Proposed delay on implementing the prohibition to provide the manufacturer(s) additional time to adjust and mitigate the impact

Single-Ply Roof Industry (SPRI) Proposal

- On August 10, 2022 SPRI provided a proposal with their suggested VOC limits and further subcategorization for the roofing products to mitigate the impact of proposed pCBtF prohibition
- Suggested VOC limits ranging from 300 to 800 g/L
 - Higher than 1998 Rule 1168 limits
 - Higher than U.S. EPA Control Techniques Guideline (CTG) limits
- Staff met with SPRI and requested more information in order to further assess their recommendation

Staff Proposal		SPRI Recommendation	
Subcategory	VOC Limit (g/L)	Subcategory	VOC Limit (g/L) Without PCBtF
Single Ply Roof Membrane Adhesive	250 (EPA: 250)	EPDM/TPO Single Ply Roof Membrane Adhesive	800
		All Other Single Ply Roof Membrane Adhesive	300
All Other Roof Adhesives	250 (EPA: 250 -300)	All Other Roof Adhesives	350
Hot Applied Modified Bitumen / BUR Adhesive	30	Hot Applied Modified Bitumen / BUR Adhesive	50
Shingle Laminating Adhesive	30	Roof Insulation/Board Stock Adhesive	75
Single Ply Roof Membrane Sealant	250 (EPA: 450)	All Other Single Ply Roof Membrane Sealant	800
		Single Ply Roof Membrane Lap Sealant	500
		Single Ply Roof Membrane Water-Block	300
All other adhesives and sealant primers	250-750 (EPA: 250-750)	Single-Ply Roof Membrane Primer	800
		All Other Roof Primers	800

Prohibition of t-BAc and pCBtF – Impact on Clear, Paintable, and Immediately Water-resistant Sealants

Stakeholder Concerns

- pCBtF was used to re-formulate Clear, Paintable, and Immediately Water-Resistant Sealants to reduce VOC content below 380 g/L
 - Achieved 300 g/L but not Rule 1168 limit of 250 g/L
- Loss of pCBtF exemption will result in an VOC content increase: 380 g/L for the cartridge grade, 550 g/L for the brush grade, and 410 g/L for squeeze tube grade
- Stakeholder suggests allowing higher emission limits for 3 years or delay the prohibition of pCBtF with current effective limits

Prohibition of t-BAc and pCBtF – Impact on Clear, Paintable, and Immediately Water-resistant Sealants (*cont.*)

Staff response

- In 2017, “Clear, Paintable, and Immediately Water-resistant Sealants” was added to Rule 1168
 - Allowed higher VOC limit provided it meet the 250 g/L limit within 5 years
- Prior to 2017 amendment, product did not comply with Rule 1168 VOC 250 g/L limits
- Staff acknowledges the proposed pCBtF prohibition will impact category
 - Proposal allows an additional year to use pCBtF in regulated products and a three-year sell through period, and a four-year use through period
- Alternative solvents for this product will also be toxic and photochemically reactive
- Many existing Architectural Sealants meet existing the 250 g/L VOC limit without pCBtF, even products that are immediately waterproof
- Staff identified a clear paintable immediately paintable sealant available for sale that does not contain any solvents or toxic compounds
- Products are being used by consumers so toxicity is a significant concern

Exemption of Opteon 1100 (HFO-1336mzz-Z)

Request for an VOC Exemption of Opteon 1100

- In 2019 U.S.EPA exempted Opteon 1100 due to negligible contribution to the formation of tropospheric ozone, and lists it as an acceptable substitute under the Significant New Alternatives Policy (SNAP) program for Foam Blowing Agents
- The exemption of Opteon 1100 for Rule 1168, especially for the use in two-component foam sealants, would help expand the product options and relief supply issues

Exemption of Opteon 1100 (HFO-1336mzz-Z)

Staff response

- In 2017 the South Coast AQMD Governing Board directed staff to prioritize reducing toxicity over VOC exemptions
- Opteon 1100 is an HFO and there is a concern that HFOs can break down into Per- and Polyfluoroalkyl substances (PFAS) through atmospheric degradation, and thus have serious health impacts
- The Office of Environmental Health Hazard Assessment (OEHHA) has not yet evaluated Opteon 1100
- Staff considering a limited exemption for Opteon 1100 use in two-component foam sealants used in professional setting, contingent on the results of an OEHHA assessment

Rubber Vulcanization Adhesives

Background

- Prior to 2017 amendment, VOC limit was 250 g/L but most facilities complied using the 55-gallon exemption
- 55-gallon exemption was removed in 2017 amendment
 - VOC limit was increased to 850 g/L limit to reflect the VOC level of existing products
 - 250 g/L limit was set for a future date allowing time for reformulation

Stakeholder Comment

- Most products cannot meet the 250 g/L limit
- Aqueous products with less than 5 g/L are available but do not work for all applications
- Solvent-based products are formulated at 850 g/L

Staff response

- Staff considering to retain current 850 g/L limit and delay implementation of 250 g/L limit

California Environmental Quality Act (CEQA)

- Staff is preparing a Draft Subsequent Environmental Assessment (SEA) which tiers off the previously certified Final Environmental Assessment for the October 2017 Amendments to Rule 1168
 - Potential significant air quality impacts expected from delayed and permanently foregone VOC emission reductions
- Targeting release of Draft SEA for a 45-day public review and comment period from September 6, 2022 to October 21, 2022

Socioeconomic Analysis

- California Health and Safety Code Sections 40440.8 and 40728.5
 - Require socioeconomic impact assessment for proposed rule or rule amendment which “will significantly affect air quality or emissions limitations”
- Socioeconomic impact assessment shall consider (to the extent data are available):
 - Type of affected industries, including small businesses
 - Impact on regional employment and economy
 - Range of probable costs, including costs to industry or business
 - Availability and cost-effectiveness of alternatives
 - Emission reduction potential
 - Necessity of adopting, amending, or repealing the rule
- The socioeconomic analysis will be released for public review and comment at least 30 days prior to the Public Hearing date

Next Steps – Rulemaking Process

Written Comments – By September 15, 2022

Stationary Source Committee – September 16, 2022

Set Hearing – October 7, 2022

Public Hearing – November 4, 2022

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