SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report

Proposed Amended Rule 1168 – Adhesive and Sealant Applications

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TABLE OF CONTENTS

Chapter 1 : BACKGROUND 1-0
Introduction 1-1
Regulatory History 1-1
Affected Industries 1-3
Public Process 1-4
Chapter 2 : TECHNOLOGY ASSESSMENT 2-0
Technology Check-In 2-1
Product-Weighted Maximum Incremental Reactivity (PW-MIR) 2-1
EPDM/TPO Roofing Adhesive Primer 2-2
Other Rule 1168 Categories 2-2
Summary of the Proposed Timelines 2-6
Other Considerations 2-7
Chapter 3 : SUMMARY OF PROPOSALS 3-0
Introduction 3-1
Proposed Amended Rule Structure 3-1
Proposed Amended Rule 1168 3-1
Chapter 4 : IMPACT ASSESSMENT 4-0
Emission Impacts 4-1
Costs 4-1
Socioeconomic Impact Assessment 4-1
California Environmental Quality Act (CEQA) 4-2
Draft Findings Under the Health and Safety Code 4-3
Comparative Analysis 4-0
APPENDIX A: RESPONSE TO COMMENTS 4-0
Public Workshop Comments A-1
COMMENT LETTERS A-5

LIST OF TABLES

Table 1-1: Working Group Meetings 1-4
Table 1-2: Meetings with Stakeholders 1-5
Table 2-1: PW-MIR Limit for Roofing Adhesive Primer 2-2
Table 2-2: Revised Prohibition Date for Roofing Adhesive Primer 2-2

Table 2-3: PW-MIR Limit for top and trim adhesive 2-3
Table 2-4: Revised Future Effective Date for Top and Trim 2-4
Table 2-5: Revised Future Effective Date for rubber vulcanization adhesive 2-5
Table 2-6: PW-MIR Limit for all other adhesive primer 2-5
Table 2-7: Proposed Revised Timelines for VOC Limits Effective Date 2-6
Table 2-8: Proposed Revised Timelines for pCBtF Prohibition, sell-through, and use-through date 2-7
Table 3-1: Summary of Table 1 Revisions 3-5
Table 3-2: Summary of Alternative PW-MIR limits 3-6
Table 3-3: QER Reporting Schedule 3-9
Table 3-4: Prohibition Effective Dates 3-11
Table 4-1: Delayed Emission Reductions (tpd) 4-1

EXECUTIVE SUMMARY

Rule 1168 was adopted in April 1989 to control volatile organic compound (VOC) emissions from adhesive and sealant applications. The rule has been amended 15 times; the last rule amendment was in November 2022 and included a phase-out schedule for *para*-chlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (t-BAc) which have been determined to be carcinogenic by the Office of Environmental Health Hazard Assessment (OEEHA). Rule 1168 regulates and establishes VOC limits for 69 categories of adhesives, adhesive primers, sealants, and sealant primers. Rule 1168 applies to products used during manufacturing at stationary sources as well as products used by consumers that are not regulated by the California Air Resources Board (CARB) in the Consumer Products Regulation (CPR)[1].

The proposed amendments to Rule 1168 began as a result of the technology check-in that was included in the 2022 amendment to assess the progress of the pCBtF and t-BAc phase out. As a result of the technology check-in, staff concluded that roof adhesive primers required more time for reformulation. Staff also reached out to manufacturers to assess the reformulation progress for three categories of adhesives and sealants with upcoming VOC limit reductions.

Staff initiated the rule development process in June 2026 to address the additional time needed to meet the January 2027 proposed pCBtF prohibition for roof adhesive primers. Further meetings with additional manufacturers and industry representatives identified three more categories that require additional time to comply with future-effective lower VOC limits. The three additional categories identified are: top and trim adhesives; rubber vulcanization adhesives; and clear, paintable, and immediately water-resistant sealants. Staff is proposing to delay the pCBtF prohibition timeline for roof adhesive primers and the future-effective lower VOC limit timelines for top and trim adhesives; rubber vulcanization adhesives; and clear, paintable, and immediately water-resistant sealants. The proposed timeline for the extension dates are:

- Roof adhesive primers pCBtF phase out, January 1, 2030
- Top and trim adhesive VOC limit reduction, January 1, 2030
- Rubber vulcanization adhesive VOC limit reduction, January 1, 2029
- Clear, paintable, and immediately water-resistant sealants VOC limit reduction, January 1, 2029

Staff is also proposing to include an alternative equivalent PW-MIR limit for roof adhesive primers and top and trim adhesives; phase out the exemption that allows facilities to use 55 gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to recordkeeping requirement for distributors; addition of a new category for battery adhesives; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

This rule amendment will result in delayed emission reductions and toxic reductions due to technical feasibility and reformulation challenges. The estimated rule inventory is approximately 9 tons per day (tpd) of VOC. The projected delayed emission reductions from the proposed amendments are 0.146 tpd of VOC emissions. Extending the pCBtF prohibition date for roof adhesive primers will delay the benefit of reducing the use of and exposure to pCBtF, a known carcinogen.

[1]The California Consumer Products Regulations; https://ww2.arb.ca.gov/sites/default/files/2020-08/v3_ADA_Regs-all_8-31-2020.pdf

CHAPTER 1 : BACKGROUND

INTRODUCTION
REGULATORY HISTORY
AFFECTED INDUSTRIES
PUBLIC PROCESS

Introduction

Rule 1168 was adopted in April 1989 to control VOC emissions from adhesive applications. The rule has been amended 15 times; the last amendment was in November 2022. The rule applies to products that were used during manufacturing at stationary sources and to products used by consumers that were not regulated by the CARB in the CPR. Rule 1168 currently regulates and establishes VOC limits for 69 categories of adhesives, adhesive primers, sealants, and sealant primers.

Regulatory History

In the 2017 rule amendment, the resolution directed staff to conduct a technology check-in in 2022 to evaluate the feasibility of several future effective VOC limit reductions. During the 2022 technology check-in, staff identified the need to amend the rule to provide additional time for product reformulation. As part of this effort, staff also chose to address the emerging toxicity concerns associated with pCBtF and t-BAc.

The 2022 amendment was the first rule to consider and change the status of two exempt or partially exempt compounds: pCBtF and t-BAc. pCBtF is considered exempt from the definition of VOC for all use within the South Coast Air Quality Management District (South Coast AQMD), including Rule 1168 products, whereas t-BAc is only exempt in a few South Coast AQMD rules. Rule 1168 included a phase-out schedule for pCBtF and t-BAc and through extensive discussions with stakeholders, staff determined that certain roofing product categories would require additional time to transition to formulations that do not rely on either exempt compound. Based on these findings, the South Coast AQMD Governing Board adopted a resolution committing staff to conduct a technology check-in to evaluate the progress of the pCBtF and t-BAc phase-out and report back to the Stationary Source Committee by January 2026. Staff determined rule amendment is necessary to address reformulation challenges for the pCBtF phase out in roof adhesive primers.

The primary goal of the current rule development is to delay the pCBtF phase out date for roof adhesive primers. In addition, staff is proposing to delay the future effective VOC limit reductions for two adhesive and one sealant categories with upcoming VOC limit reductions and add a new category for battery adhesives due to formulation challenges. The proposal also includes alternative reactivity-based limits for two challenging categories; removal of an existing exemption at a future-effective date; and clarification of reporting requirements for manufacturers.

Regulatory History of t-BAc and pCBtF

In 1994, the U.S. EPA exempted pCBtF from the definition of a VOC, and in 1995, South Coast AQMD added pCBtF as an exempt VOC compound in Rule 102. A Rule 102 VOC exemption means pCBtF is not considered a VOC for any application in the South Coast AQMD.

In 2004, U.S. EPA similarly exempted t-BAc; however, South Coast AQMD did not grant a full exemption under Rule 102 due to toxicity concerns, instead allowing limited exemptions through source-specific rules such as Rule 1113.

In 2013, amendments to Rule 1113 directed staff to re-evaluate the t-BAc exemption based on emerging health concerns. In 2017, staff presented preliminary findings on t-BAc and pCBtF to the Stationary Source Committee (SSC), and the SSC subsequently directed staff to remove t-BAc

exemptions following completion of OEHHA's health risk assessment and to evaluate pCBtF for potential carcinogenicity.

OEHHA finalized the t-BAc health risk assessment in 2018, concluding that its cancer risk was higher than previously estimated, and finalized the pCBtF assessment in 2020, identifying pCBtF as a potential carcinogen. In response, South Coast AQMD has taken action to prohibit these compounds through amendments to Rule 1168 in 2022, Rule 1151 in 2024, Rule 1171 and 1107 in 2025, and Rules 1144 and 1136 in 2026.

Regulatory History of Rule 102 Group II Exempt Compounds

When the U.S. EPA exempts compounds from the federal definition of a VOC, they only consider the photochemical reactivity, they do not consider other potential adverse factors such as toxicity. When the South Coast AQMD considers exempting compounds, considerations such as toxicity, potentially toxicity, or other environmental impacts are evaluated. Compounds are then categorized in Rule 102 as Group I compounds, which are not restricted from use, or Group II compounds, which are restricted or will be restricted in the future due to toxicity, potentially toxicity, or other environmental impacts.

Since the 1990s, Rule 1168 included prohibitions for the use of certain Group II exempt compounds, the compounds prohibited changed with different amendments.

Currently, the Group II prohibition excludes VMS, even though VMS was added to Rule 102 as Group II exempt compounds in the 1995 amendment. OEHHA has identified non-cancer chronic toxic endpoint for VMS, specifically impacting the liver and spleen and the U.S. EPA preliminary evaluation on a type of VMS indicated unreasonable risk to workers in manufacturing and industrial use and to consumers through certain conditions of use.

Small, but non-negligible, quantities of VMS can be found in certain types of silicone-based materials. VMS are not intentionally added but can be found as an impurity in certain materials. To address this, many recent VOC coatings rules have been amended to include a prohibition of VMS but at a higher prohibition level. Staff is proposing to prohibit the use of VMS at 1.0 percent by weight.

Regulatory History of Dimethyl Carbonate (DMC)

The U.S. EPA exempted DMC from the definition of a VOC in 2009 due to its low photochemical reactivity. Manufacturers requested Rule 102 be amended to include DMC as an exempt; however, there was enough information about the potential toxicity of DMC that staff did not include it as an exempt. Rule 1144 – Metal Working Fluids did include a partial exemption for DMC, but that partial exemption was removed during the 2026 rule amendment. Staff is concerned that the proposed alternative MIR limit will encourage the use of DMC due to its low chemical reactivity. OEHHA has not finalized its toxicity assessment for DMC because manufacturers have not provided sufficient data. The information available indicates strong negative outcomes, including developmental consequences such as low fetal birth rates. Staff is not aware of any materials using DMC, introducing a prohibition before manufacturers work to reformulate their materials will prevent another unfortunate substitution.

Affected Industries

Adhesive and sealant use subject to the rule spans a wide range of industries that have miscellaneous uses during manufacturing. The industry sectors that make extensive use of products subject to this rule include[1]:

- Adhesive Manufacturing (NAICS 325520)
- Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing (NAICS 333415)
- All Other Rubber Product Manufacturing (NAICS 326299)
- Asphalt Shingle and Coating Materials Manufacturing (NAICS 324122 and 325520)
- Commercial and Institutional Building Construction (NAICS 236220)
- Custom Architectural Woodwork and Millwork Manufacturing (NAICS 337212)
- Drywall and Insulation Contractors (NAICS 238310)
- Flooring Contractors (NAICS 238330)
- Footwear Manufacturing (NAICS 316210)
- Glass and Glazing Contractors (NAICS 238150)
- Hardwood Veneer and Plywood Manufacturing (NAICS 321211)
- Household Furniture (except Wood and Metal) Manufacturing (NAICS 337125)
- Industrial Building Construction (NAICS 236210)
- Manufactured Home (Mobile Home) Manufacturing (NAICS 321991)
- Motor Vehicle Seating and Interior Trim Manufacturing (NAICS 336360)
- New Multifamily Housing Construction (except For-Sale Builders) (NAICS 236116)
- New Single-Family Housing Construction (except For-Sale Builders) (NAICS 236115)
- Office Furniture (except Wood) Manufacturing (NAICS 337214)
- Oil and Gas Pipeline and Related Structures Construction (NAICS 237120)
- Other Millwork (including Flooring) (NAICS 321918)
- Plumbing, Heating, and Air-Conditioning Contractors (NAICS 238220)
- Polystyrene Foam Product Manufacturing (NAICS 326140)
- Residential Remodelers (NAICS 236118)
- Roofing Contractors (NAICS 238160)
- Rubber Product Manufacturing for Mechanical Use (NAICS 326291)

[1] NAICS Association from http://www.naics.com/index.html

- Showcase, Partition, Shelving, and Locker Manufacturing (NAICS 337215)
- Siding Contractors (NAICS 238170)
- Surgical Appliance and Supplies Manufacturing (NAICS 339113)
- Tile and Terrazzo Contractors (NAICS 238340)
- Tire Retreading (NAICS 326212)
- Urethane and Other Foam Product (except Polystyrene) Manufacturing (NAICS 326150)
- Water and Sewer Line and Related Structures Construction (NAICS 237110)
- Wood Container and Pallet Manufacturing (NAICS 321920)
- Wood Kitchen Cabinet and Countertop Manufacturing (NAICS 337110)
- Wood Window and Door Manufacturing (NAICS 321911)
- Paint and Wallpaper Stores (NAICS 444120)

Public Process

The rule amendment process for PAR 1168 began in June 2026. Staff conducted two Working Group Meetings and held multiple individual meetings with manufacturers and distributors. The table below summarizes the key topics discussed at each of the Working Group Meetings; presentations from those meetings are posted on the South Coast AQMD's website.[2]

Table 1-1: Working Group Meetings

Meeting title	Date	Highlights
Technology Check In	November 18, 2025	• Summary of stakeholder meetings • Technology check-in process
Working Group Meeting #1	July 8, 2026	• Rule background • Key amendment objectives
Working Group Meeting #2	August 26, 2026	• Proposed amendments and timelines extensions • Other rule considerations
Public Workshop	September 30, 2026	• Proposed amended rule including updated VOC limits and revised effective dates

Staff also met with industry stakeholders and their representatives throughout the rule development process. Table 1-2 below summarizes stakeholder meetings during the rulemaking:

[2] https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1168

Table 1-2: Meetings with Stakeholders

Date	Stakeholder
October 15, 2025	Single-Ply Roofing Industry (SPRI)
October 17, 2025	Johns Manville
November 17, 2025	Carlisle Construction Materials (CCM)
June 25, 2026	DAP Global Inc.
June 25, 2026	R.D. Abbot Co.
July 30, 2026	Adhesive and Sealant Council (ASC)
September 3, 2026	Concorde Battery Corporation
October 7, 2026	Parker Lord

CHAPTER 2 : TECHNOLOGY ASSESSMENT

TECHNOLOGY CHECK-IN

PROPOSED TIMELINES

OTHER PROPOSED CHANGED TO THE RULE

Technology Check-In

During the 2022 rule amendment, the Governing Board directed staff to assess the progress of the pCBtF and t-BAc phase-out and to report back to the Stationary Source Committee. As part of this effort, the technology check-in included meetings with manufacturers, review of data reported by an industry trade group, and additional stakeholder feedback relevant to the transition away from pCBtF and t-BAc.

Staff met with roofing industry stakeholders as part of the technology check-in process. These meetings included discussions with the Single-Ply Roofing Industry (SPRI) on October 15, 2025, followed by a meeting with a manufacturer on October 17, 2025, and another manufacturer meeting with Carlisle CCM on November 14, 2025. Stakeholders did not identify phase-out concerns for most roofing adhesive and sealant categories, with the exception of Ethylene Propylene Diene Monomer (EPDM) roofing adhesive primers, which may require additional time for reformulation. For the majority of products, the phase-out had already been implemented. The remaining products were undergoing testing prior to commercial release.

Product-Weighted Maximum Incremental Reactivity (PW-MIR)

One component of the amended rule is the introduction of an optional PW-MIR compliance pathway for two categories. PW-MIR is a reactivity-based metric that reflects the ozone-forming potential of a product based on the weighted reactivity of all VOC ingredients in the formulation.

Under PAR 1168, PW-MIR limits are established only for roof adhesive primers and top and trim adhesives. These limits were derived through equivalency analyses to ensure that compliance using PW-MIR achieves an ozone impact comparable to compliance with existing mass-based VOC limits. The PW-MIR pathway is optional and does not replace or modify the existing VOC content limits.

MIR values used to calculate PW-MIR are published by CARB and represent the relative ozone-forming potential of individual VOCs. PW-MIR is calculated by weighing each VOC's MIR value by its proportion in the product formulation, resulting in a single metric that represents the overall ozone-forming potential of the product. This approach allows the rule to distinguish between VOCs with substantially different reactivities rather than treating all VOCs equally on a mass basis.

This approach provides manufacturers with additional reformulation flexibility by allowing substitution of lower-toxicity VOCs with known reactivity characteristics, rather than relying on exempt solvents. By maintaining existing VOC limits and offering PW-MIR as an alternative pathway, the rule avoids backsliding while supporting feasible transitions away from toxic exempt compounds.

The PW-MIR framework has been used in prior South Coast AQMD rulemakings, including Rules 1151, 1171, and 1136, to support equivalent or greater ozone protection while providing flexibility during reformulation. Consistent with those rules, PW-MIR under PAR 1168 is offered as an alternative compliance option and is designed to achieve equal or lower ozone formation compared to traditional mass-based VOC limits.

This layered compliance framework balances public health protection with technical feasibility, allowing transition away from toxic exempt solvents and VOC reductions while maintaining product performance and regulatory compliance.

EPDM/TPO Roofing Adhesive Primer

EPDM roofing adhesive primers are low-use specialty coatings but serve as a critical component of EPDM roofing systems. These products are typically formulated as low-solids coatings that rely on a high percentage of pCBtF to meet the current 250 g/L VOC limit. At this time, no EPDM roofing adhesive primer has been reported as being formulated without pCBtF.

Staff continued engagement with manufacturers and trade associations to assess progress in developing compliant, non-pCBtF EPDM roofing adhesive primers. Since reformulation efforts did not demonstrate sufficient progress, staff considered extending the pCBtF phase-out for this specialty category and considered alternative equivalent PW-MIR limits for this category.

Thermoplastic Olefin (TPO) roofing adhesive primers are high-solvent-content primers used to achieve the necessary bond strength in TPO roofing systems. These primers meet the current VOC limits through the use of high levels of pCBtF, typically ranging from 40 to 70 percent of the formulation.

Staff reviewed EPDM/TPO Roofing Adhesive Primers sold in South Coast AQMD, and based on manufacturer submitted data, staff is proposing a PW-MIR of 0.65 g O_3/g of product for this category.

Table 2-1: PW-MIR Limit for Roofing Adhesive Primer

Category	PW-MIR (g O_3/g of product)
Roof adhesive primer	0.65

To allow time for manufacturers to comply with the proposed PW-MIR VOC limit, staff is recommending extending the pCBtF prohibition timeline for three years to January 1, 2030.

Table 2-2: Revised Prohibition Date for Roofing Adhesive Primer

Category	Prohibition Effective Date	Sell-through End Date	Use-through End Date
Roof adhesive primer	~~January 1, 2027~~ January 1, 2030	~~January 1, 2028~~ January 1, 2031	~~January 1, 2028~~ January 1, 2032

Other Rule 1168 Categories

During the rule amendment process, staff also evaluated upcoming VOC limit reductions. As part of this evaluation, staff met with adhesive manufacturers to assess the status of reformulation efforts for categories with upcoming VOC reductions, including top and trim adhesives, rubber vulcanization adhesives, and Clear, Paintable, and Immediately Water-Resistant Sealants. These discussions provided insight into manufacturers' progress, technical challenges, and anticipated timelines for transitioning to lower-VOC or non-pCBtF formulations.

Top and Trim Adhesives

In 2007, the VOC limit for this product category was reduced from 540 g/L to 250 g/L. However, manufacturers reported technical challenges that prevented reformulation to meet the lower limit. As a result, end users continued to rely on high-VOC products under the 55-gallon-per-year exemption allowed in the rule.

During the 2017 rule amendment, staff reinstated the 540 g/L limit through 2023 based on manufacturer feedback indicating that progress was being made toward achieving the 250 g/L limit. This temporary reinstatement was intended to provide additional time for reformulation while ensuring continued product availability.

On January 1, 2019, the 55-gallon-per-year exemption expired for the category, further emphasizing the need for compliant low-VOC formulations.

In 2021 and 2022, staff conducted the required technology assessment to determine whether the 250 g/L limit would be feasible by 2023. The assessment concluded that a rule amendment was necessary due to reformulation challenges. Based on these findings, the compliance deadline for achieving the 250 g/L VOC limit was extended to January 1, 2028.

On June 25, 2026, staff met with a stakeholder to discuss the phase-out process and evaluate progress in developing compliant reformulations. Initial stakeholder feedback indicated that a low-VOC, water-based contact adhesive has been successfully developed and performs well in many applications. However, manufacturers reported that the product did not pass critical top-and-trim performance tests required for automotive use, and that water-based systems are unable to provide the high-heat-resistant properties needed for certain applications. Based on this feedback, stakeholders indicated that an extended timeline is necessary to meet the 250 g/L.

Staff reviewed top and trim adhesives sold in South Coast AQMD and evaluated additional data provided by manufacturers. Based on this review, staff determined that a PW-MIR of 1.00 g O_3/g product is equivalent to the current 540 g/L VOC limit. Using PW-MIR values applied in comparable rules with a 250 g/L VOC limit, staff proposes a PW-MIR of 0.60 g O_3/g product for this category.

Table 2-3: PW-MIR Limit for top and trim adhesive

Category	PW-MIR (g O_3/g of product)
Top and trim adhesive	0.60

The current rule establishes a top and trim VOC limit of 250 g/L, effective January 1, 2028. Given ongoing reformulation challenges and the absence of compliant products, staff is proposing to extend the compliance timeline by two years, to January 1, 2030.

Table 2-4: Revised Future Effective Date for Top and Trim

Category	Current Limit (g/L)	Limit at Future Effective Date	Future Effective Date
Top and trim adhesive	540	250	~~1/1/2028~~ 1/1/2030

Rubber Vulcanization Adhesives

Prior to 2017, the VOC limit for this category was set at 250 g/L; however, most facilities complied using the 55-gallon exemption rather than reformulating products to meet the lower VOC limit.

During the 2017 rule amendment, the 55-gallon exemption was removed, and the VOC limit was raised to 850 g/L to reflect existing product formulations. The 250 g/L limit was retained as a future effective limit to allow manufacturers additional time to complete necessary reformulation work.

In 2022, stakeholders requested reconsideration of the future 250 g/L limit due to ongoing reformulation challenges. Based on stakeholder feedback and available product data, staff retained the 850 g/L limit as the current requirement and provided an additional five years for reformulation to support the development of compliant products.

On June 25, 2026, staff met with stakeholders to evaluate progress on reformulating rubber vulcanization adhesives to meet the future effective 250 g/L VOC limit. Initial stakeholder feedback indicated that rubber vulcanization adhesives are highly specialized products that vary significantly depending on the specific use case, with each formulation uniquely developed for a particular application. Stakeholders reported that product development had been temporarily halted due to an incident at a manufacturing plant, which slowed progress on reformulation efforts. Manufacturers also noted that next-generation water-based technologies are currently being evaluated but are still in the early stages of testing.

Stakeholder follow-up on reformulation progress indicated that three compliant water-based products are currently in development; however, not all applications will be fully tested and ready by January 1, 2028, due to ongoing technical challenges associated with reformulating this product category. Additional time will be necessary to meet the current VOC limit.

Based on this information, staff is proposing to extend the compliance timeline by one year, to January 1, 2029.

Table 2-5: Revised Future Effective Date for rubber vulcanization adhesive

Category	Current Limit (g/L)	Limit at Future Effective Date	Future Effective Date
Rubber vulcanization adhesive	850	250	~~1/1/2028~~ 1/1/2029

In addition, staff is also providing an alternative PW-MIR VOC limit to help address reformulation challenges for the rubber vulcanization adhesive category. Manufacturers have indicated that many products can be transitioned to aqueous formulations, however there will be a few low-volume products that are used part of the rubber vulcanization system which may encounter potential challenges. Staff evaluated data provided by manufacturers. And based on the review, staff determined that a PW-MIR of 0.65 g O_3/g product is equivalent to the current 250 g/L VOC limit. Using PW-MIR values applied in comparable low-solids products with a 250 g/L VOC limit, staff proposes a PW-MIR of 0.65 g O_3/g product for this category.

Table 2-6: PW-MIR Limit for all other adhesive primer

Category	PW-MIR (g O_3/g of product)
All Other Adhesive Primer	0.65

Clear, Paintable, and Immediately Water-Resistant Sealants

Before 2017, this product category was included within the broader "Architectural Sealant" category. During the 2017 amendment, a new subcategory—Clear, paintable, and immediately water-resistant sealant—was created with a 380 g/L VOC limit. Stakeholders indicated that the product provides immediate water resistance, allowing rapid sealing during rain or snow conditions. Staff noted, however, that other Architectural Sealants that comply with the 250 g/L VOC limit also provide immediate water resistance; the distinction lies in these products being "clear" and then also "paintable."

In 2017, the stakeholder requested additional time to reformulate products to meet the future 250 g/L limit. During the 2022 rule amendment, the stakeholder again requested additional time due to ongoing technical challenges. The compliance deadline was extended to January 1, 2026, providing approximately eight years for reformulation.

The majority of clear, paintable, and immediately water-resistant Sealants are used for architectural applications; some are used as roofing sealants. The 250 g/L VOC limit went into effect January 1, 2026; however, products manufactured before January 1, 2026 can be sold until January 1, 2029 and used January 1, 2030.

Staff met with the Adhesive and Sealant Council on July 30, 2026, a national trade group representing North American adhesive and sealant manufacturers, raw material suppliers, equipment suppliers, and distributors. The trade group claimed products in this category have not successfully been reformulated to meet the 250 g/L VOC limit. Reformulation efforts had been initiated with pCBtF; however, pCBtF is no longer a viable option. Staff noted that Clear,

Paintable, Immediately Water-Resistant Sealants were reported in manufacturer Quantity and Emissions Reports (QERs) at VOC levels around 50 g/L, indicating that some manufactures have successfully reformulated these types of sealants.

Clear, paintable, and immediately water-resistant sealants are used across both architectural and roofing applications. Approximately 66 percent of use occurs in architectural settings, including sinks, bathtubs, and windows. The Architectural Sealant category has a VOC limit of 50 g/L, and many products already meet this limit. While these products are not immediately water-resistant, this property is generally less critical for architectural applications. While these products are not both clear and paintable, as previously stated, those characteristics do not justify the extremely high VOC levels of the products.

The remaining 34 percent of use occurs in roofing applications, where the sealants are used for flashing, vent pits, and ductwork. Roofing Sealants have a VOC limit of 300 g/L, and many products meeting this limit, including those that provide immediate water resistance, are available. While compliant roofing sealants may not be both "clear" and then also "paintable," those characteristics are even less relevant when used on a roof, where the opacity and paintability are even less relevant.

The need for this high VOC category carve out is not clear when there are many low-VOC sealants available. The South Coast AQMD is in extreme non-compliance for ground level ozone; therefore, emission reductions are crucial. Architectural sealants with VOC levels under 50 g/L are commercially available and widely used. It is difficult to justify a high VOC category to be carved out at 380 g/L for a sealant that is clear but then is obscured by paint or is paintable when low-VOC sealants tinted to color match any installation are widely available. At the time of the category carve out, architectural sealants had a 250 g/L limit, and the manufacturers committed to lowering the clear, paintable, and immediately water-resistant sealant VOC content down to 250 g/L, but that has not been achieved. Now that architectural sealants can comply with a 50 g/L VOC limits, these high VOC products need to be reformulated or eliminated from this air basin.

Staff is recommending one additional VOC limit reduction delay for the clear, paintable, and immediately water-resistant sealant category, which was established in 2017, by approximately two years from the date of rule adoption to January 1, 2029. Multipurpose water-resistant sealants that meet the 50 g/L VOC limit are commercially available, and some products have been reported with VOC levels below 50 g/L. In addition, non-clear or paintable water-resistant outdoor roofing sealants that meet the 300 g/L VOC limit are also commercially available.

Summary of the Proposed Timelines

The following tables show the summary of proposed revised timelines for the four categories.

Table 2-7: Proposed Revised Timelines for VOC Limits Effective Date

Category	Proposed Date
Clear, paintable, and immediately Water-Resistant Sealant	January 1, 2029
Rubber vulcanization adhesives	January 1, 2029
Top and trim adhesives	January 1, 2030

Table 2-8: Proposed Revised Timelines for pCBtF Prohibition, sell-through, and use-through date

Category	Final Manufacturer Date	Sell-Through Date	Use-Through Date
Roof adhesive primers	January 1, 2030	January 1, 2031	January 1,2032

Other Considerations

Quantity and Emission Reports

As part of the proposed amendments, staff is also proposing updates to the Quantity and Emissions Report (QER) requirements to streamline reporting, improve data quality, and ensure consistency with similar provisions in Rules 1113 and 314. These changes are intended to address gaps in current reporting, reduce ambiguity, and strengthen the completeness and accuracy of product data submitted to the South Coast AQMD.

To improve alignment with Rules 1113/314 and enhance data quality, staff is proposing revisions to the QER requirements. Although Rule 1168 contains similar reporting provisions, staff has determined that not all manufacturers are reporting adhesives and sealants when products are sent through distributors rather than sold directly to retailers. The proposed change will ensure that all products sold directly to retailers or distributors, including those distributed through big box retailers, are included in annual QER submissions. This approach is consistent with Rule 314/1113, which requires big box retailers to report sales volumes to both the South Coast AQMD and the architectural coatings manufacturer, including products distributed through centers inside or outside the South Coast AQMD. The manufacturers rely on those big box reports to ensure their Rule 314 annual sales volumes reflect what is sold at big box retail outlets.

Rule 1168 currently requires reporting of "total annual volume sold into or within the South Coast AQMD," including products distributed through centers located inside or outside the South Coast AQMD; however, the South Coast AQMD primarily relies on manufacturers to provide complete information. To improve accuracy and eliminate gaps, staff is proposing to amend the rule to clarify that manufacturers must report:

- All sales to retailers who directly sell products within the South Coast AQMD
- All sales to distributors who sell into the South Coast AQMD
- All sales information reported back to manufacturers by big box retailers

In addition, manufacturers will be required to submit a list of distributors to support verification of reporting completeness. Distributors would be required to maintain records but would not be required to report their sales to the South Coast AQMD. This change will avoid duplication, double counting, and unnecessary administrative burden. Manufacturers will be primary source of quantity and emissions data.

Staff also proposes redefining and updating the definition of "distribution centers" to "distributors" to ensure it refers to midstream distributors and not retailers that sell directly to end users.

Some QER submissions currently include ambiguous or outdated category names (e.g., reporting generic "adhesives" without specifying the correct adhesive subcategory), which results in incorrect classification and complicates data validation, reporting, and trend analysis. To address

these inconsistencies, staff is introducing standardized Rule 1168 category codes in reporting templates. These codes will eliminate ambiguity, improve accuracy, and ensure consistent and reliable data across reporting cycles.

55-Gallon Exemption

In addition to proposed timeline amendments and updates to the QER reporting requirements, staff is also recommending changes to the existing 55-gallon exemption in Rule 1168. The exemption was originally adopted to allow facilities limited use of non-compliant products when compliant formulations were not yet commercially available. As product reformulation has progressed and VOC limits have been updated over time, staff has reassessed the need for this provision as part of the current rule amendment.

Currently, facilities may use up to 55 gallons per year of non-compliant products. Historically, facilities relied on this exemption for top and trim adhesives and rubber vulcanization adhesives because compliant formulations were not available. In 2017, staff increased the VOC limits for these categories and required facilities to report any use of the exemption. Since that time, staff is not aware of any adhesives or sealants that cannot meet current VOC limits, and no annual reports have been received from facilities utilizing the exemption. Compliant products now exist in every category, but the continued availability of the exemption has led manufacturers to cite it as justification for selling non-compliant products into the South Coast AQMD.

Given the lack of reported use, the availability of compliant products, and the potential for misuse, staff is proposing to sunset the 55-gallon exemption effective January 1, 2029. Eliminating this provision will eliminate a potential loophole that allows the sale of non-compliant products into and within the South Coast AQMD.

Independent Distributor Exemption

Another consideration in this rule amendment is the existing independent distributor exemption. Under the current provision, manufacturers and suppliers are exempt from the prohibition to sell non-compliant products provided they notify independent distributors in writing that the products may not be used within the South Coast AQMD.

Manufacturers have reported selling large quantities of non-compliant adhesives and sealants into the South Coast AQMD citing this exemption. Staff's review of written notices provided by manufacturers to distributors indicates that the notifications often lack specificity and may not clearly communicate that the products cannot be used within the South Coast AQMD. This increases the potential for misuse and creates enforcement ambiguity.

Given these concerns, staff is proposing to require manufacturers to provide the written notification they provide to distributors to the South Coast AQMD.

CHAPTER 3 : SUMMARY OF PROPOSALS

INTRODUCTION
PROPOSED AMENDED RULE STRUCTURE
PROPOSED AMENDED RULE 1168

Introduction

The main objective of the proposed amendments to Rule 1168 is to extend the pCBtF prohibition date for roofing adhesive primers to allow additional time for reformulation; extend future-effective VOC limit reductions for two adhesive categories and one sealant category; introduce alternative reactivity-based limits for categories with significant reformulation challenges; sunset the 55-gallon exemption that allows limited use of non-compliant products; and clarify manufacturer reporting requirements to improve data quality and consistency. The proposed revised rule structure and key provisions are discussed in the following sections.

Proposed Amended Rule Structure

(a) *Purpose*
(b) *Applicability*
(c) *Definitions*
(d) *Requirements*
(e) *Reporting and Recordkeeping Requirements*
(f) *Test Methods*
(g) *Administrative Requirements*
(h) *Prohibition of Sales and Use*
(i) *Rule 442 Applicability*
(j) *Exemptions*

Proposed Amended Rule 1168

Definitions [Subdivision (c)]

To provide clarity, definitions are used in the proposed amended rule as a proper noun to better distinguish defined terms from common terms. Refer to PAR 1168 for a complete list of definitions. New definitions were added to clarify applicability and requirements. Revised timeline for categories are discussed later in subdivision (d).

The following are new and modified definitions for PAR 1168. For all definitions, refer to the preliminary draft of PAR 1168 released with the Staff Report. Accordingly, the following definitions will be added

Refer to PAR 1168 for a complete list of definitions. The following are new or revised definitions for PAR 1168:

The definition for battery adhesive is added to address pCBtF prohibition and phase-out challenges.

“BATTERY ADHESIVE means an adhesive used to bond or seal components within a battery assembly, engineered to maintain integrity when exposed to battery operating conditions, including chemical, thermal, and mechanical stress.”

The definition of Big Box Retailer was updated to correct a reference to the Office of Management and Budget

“BIG BOX RETAILER means a physically large-chain Retail Outlet that is classified by the Office of Management and Budget under North American Industry Classification System code 444110: Home Centers or identified in a list maintained by the Executive Officer.”

The definition for chemical abstracts service registration number or CAS RN is added to provide clarification.

"CHEMICAL ABSTRACTS SERVICE REGISTRATION NUMBER or CAS RN means a unique numerical identifier assigned by the Chemical Abstracts Service to a single chemical substance to ensure unambiguous identification'.

The definition of Distribution Center has been revised to Distributors for consistency with other South Coast AQMD rules.

"DISTRIBUTOR means any Person, company, firm, or establishment to whom Regulated Product are sold or supplied for the purposes of resale or distribution into or within the South Coast AQMD, except that Manufacturers are not Distributors."

The definition of Executive Officer was added to clarify reporting and recordkeeping requirements

"EXECUTIVE OFFICER is as defined in Rule 102 – Definition of Terms."

The definition of Exempt Compounds was revised to include applicability to Group I and Group II Exempt Compounds to reference the revised prohibition of sale or use provisions in subdivision (h)

"EXEMPT COMPOUNDS are as defined in Rule 102, including Group I and Group II Exempt Compounds. For the purpose of this rule, Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) shall only be considered exempt as a VOC for High-Pressure Two-Component Foam Sealants and Low-Pressure Two-Component Foam Sealants when used in an industrial or professional setting by workers trained with procedures and guidelines to reduce potential risk of exposure, if the Office of Environmental Health Hazard Assessment has sufficient information to conduct a toxicity assessment and, upon completion of its assessment."

The definition for Manufacturer is added to provide clarification of reporting and recordkeeping requirements.

"MANUFACTURER means any Person, company, firm, or establishment who imports, manufactures, blends, assembles, produces, packages, repackages, or re-labels any Regulated Product. The Manufacturer listed on the product's label shall be primarily responsible for compliance with applicable provisions of this rule. For the purpose of this rule, Private Labeler is considered and Manufacturer."

The definitions for maximum incremental reactivity (MIR) and definition for product-weighted MIR (PW-MIR) are added to support the introduction of reactivity-based compliance options.

"MAXIMUM INCREMENTAL REACTIVITY (MIR) means the measure of the photochemical reactivity of a VOC, which estimates the weight of ozone produced from a weight of VOC expressed as gram of ozone per gram of VOC (g O_3 /g VOC). MIR values for individual VOCs are specified in Title 17, California Code of Regulations Sections 94700 and 94701."

"PRODUCT-WEIGHTED MIR (PW-MIR) means the sum of all weighted MIR for all ingredients in a product. The PW-MIR is the total product reactivity expressed to hundredths of a gram of

ozone formed per gram of product (excluding container and packaging) and calculated according to the following equations:

Weighted MIR (Wtd-MIR) ingredient = MIR × Weight Fraction ingredient and

$PW\text{-}MIR = (Wtd\text{-}MIR)_1 + (Wtd\text{-}MIR)_2 + \ldots + (Wtd\text{-}MIR)_n$

Where:

MIR = ingredient MIR; and

1, 2, 3…n = each ingredient in the product up to the total n ingredients in the product."

Please note that MIR values are expressed in g O_3/g VOC for each ingredient, while PW-MIR is expressed in g O_3/g product because it reflects the sum of each ingredient's MIR multiplied by its weight fraction in the product. MIR is an ingredient-level value; PW-MIR is the product-level result of that calculation.

The definition of Reactive Products was revised to include monomers used in energy curable products. The existing definition included other examples of materials that contain reactive products; it is being expanded to include the reactive monomers in energy curable coatings. This is not a change, just a clarification.

"REACTIVE PRODUCTS means a regulated products composed, in part, of monomers that become integral parts of the cured product through chemical reaction. Reactive Products include, but are not limited to, monomers used in: polyurethanes, two-component Regulated Products, and energy curable Regulated Products, which are cured upon exposure to visible-light, ultra-violet light or to an electron beam."

The definition for Retail Outlet is added to provide clarification.

"RETAIL OUTLET means any establishment at which a Regulated Product is sold, supplied, or offered for sale directly to end-users. For the purposes of this rule, a Distributor who sells Regulated Products directly to end-users within the South Coast AQMD is considered a Retail Outlet."

The following definitions are added for clarification.

"EXECUTIVE OFFICER is as defined in Rule 102 – Definition of Terms."

"SOUTH COAST AQMD TEST METHOD means a test method included in the manual of "Laboratory Methods of Analysis for Enforcement Samples," which can be found on the South Coast AQMD website and are referenced in subdivision (f)."

The following list of definitions are revised for clarification without changing the original intent.

- Big-box retailer
- Cove base adhesive
- Edge glue adhesive
- High-pressure two component foam sealant
- Private labeler
- Potable water sealant
- Rubber floor adhesive
- Special purpose contact adhesive

The Regulatory and Material (Actual) VOC definitions have been revised for consistency with other South Coast AQMD rules.

Requirements [Subdivision (d)]

This subdivision contains the provisions for any person that uses or stores any adhesives, adhesive primers, sealants, or sealant primers conducting operations in the South Coast AQMD and applies to any person who sells, offers for sale, markets, blends, distributes, packages, repackages, or supplies marine or pleasure craft and marine structure coatings.

This provision sets the requirements for VOC limits and effective dates for adhesives and sealants by categories and subcategories, as summarized in Rule 1168 Table 1 – Regulated Product Categories and VOC Limits. Staff is proposing a revision to Rule 1168 Table 1 to reflect the VOC limits that became effective dates January 1, 2023 for 11 subcategories. Staff is also proposing to provide additional time and extend the lower VOC limit effective dates for three categories:

- Top and trim adhesive
- Clear, paintable, and immediately water-resistant sealant
- Rubber vulcanization adhesive

A new product category for battery adhesives was added to Table 1 of the rule to allow time for testing and recertification of pCBtF-free battery adhesives used at a local manufacturing facility. Battery adhesives are currently subject to the "all other adhesive" category and have a VOC content limit 250 g/L. The newly added battery adhesives category will have a more stringent VOC content limit of 120 g/L and will not result in any potential VOC emissions increase. The concern related to this battery adhesive category is related to pCBtF reformulation and not VOC limit related. The future effective prohibition date was added to Table 3 – pCBtF and t-BAc Prohibition timeline of the rule in subdivision (h).

The following table provides a summary of the proposed changes and updates to Table 1 in Rule 1168. New changes to the table include: the addition of the revised effective dates for Top and Trim and rubber vulcanization adhesive categories; addition of one new category for battery adhesive along with an associated VOC limit; updating VOC limit for 17 adhesive and sealant categories which became effective on January 1, 2023. This change to the 17 categories was to clean up and streamline the table with existing VOC limits that became effective and is not a lowering of the VOC limits.

Table 3-1: Summary of Table 1 Revisions

Category	Current Limit	Limit at Future Effective Date	Effective Date
Adhesives			
Top and Trim Adhesive	540 g/L	250 g/L	1/1/2030
Rubber Vulcanization Adhesive	850 g/L	250 g/L	1/1/2029
Battery Adhesive	120 g/L		
Wood Flooring Adhesive	20 g/L		1/1/2023
Roofing Adhesive			
Hot Applied Modified Bitumen/Built Up Roof Adhesive	30 g/L		1/1/2023
Shingle Laminating Adhesive	30 g/L		1/1/2023
Plastic Welding Cement			
CPVC Welding Cement	400 g/L		1/1/2023
CPVC Welding Cement for Life -Safety Systems	490 g/L		1/1/2023
ABS to PVC Transition Cement	425 g/L		1/1/2023
PVC Welding Cement	425 g/L		1/1/2023
Sealants			
Foam Insulations	5%		1/1/2023
One-Component Foam Sealant	18%		1/1/2023
High-Pressure Two-Component Foam Sealant	5%		1/1/2023
Low-Pressure Two-Component Foam Sealant	5%		1/1/2023
Non-Staining Plumbing Putty	50 g/L		1/1/2023
Clear, Paintable, and Immediately Water-Resistant Sealant	380 g/L	250 g/L	1/1/2029
All Other Sealants	250 g/L		1/1/2023
Roofing Sealants			
Single Ply Roof Membrane Sealant (Except Cut Edge)	250 g/L		1/1/2023
Cut Edge Single Ply Roof Membrane Sealant	250 g/L		1/1/2023

Additionally, staff is proposing an alternative PW-MIR limit to paragraph (d)(2) for three adhesive categories, all other adhesive primer, roof adhesive primers and top and trim adhesives to address potential reformulation challenges for the three categories. The alternative PW-MIR limits are equivalent to the current mass-based limits for the respective category. Please see Table 3-2 for a summary of the proposed PW-MIR limits.

Table 3-2: Summary of Alternative PW-MIR limits

Category	PW-MIR Limit (g O_3/g Product)
All Other Adhesive Primer	0.65
Roof adhesive primer	0.65
Top and trim adhesive	0.60

To provide additional clarity for the PW-MIR VOC content calculation in Table 3-2, subparagraph (d)(2)(B) was added to the rule. The new subparagraph references the October 2, 2010 MIR values as the default values that should be used in PW-MIR calculation and is the most recent MIR value at the time of this rule amendment. If the MIR values are updated at a future date, subparagraph (d)(2)(B) now clarifies that the manufacturer can use the 2010 MIR values for up to three years from the publication date of the latest MIR values. After three years from the publication date of the latest MIR values, manufacturers must use the latest MIR value for calculating the PW-MIR VOC content. This three-year grace period will provide time for manufacturers to ensure their products still comply with the PW-MIR VOC limits and to relabel products if the PW-MIR VOC content changes based on the update MIR values.

Reporting and Recordkeeping Requirements [Subdivision (e)]

Rule 1168 includes two specific 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. The current rule specifies reporting and recordkeeping under separate subdivisions (f) and (d) and it is not specific that Rule 109 only applies to stationary sources.

Staff proposes to clarify and update recordkeeping and reporting requirements for manufacturers, private labelers, big box retailers, retail outlets, and distributors. The key change is that distributors are now only required to maintain records and make them available upon request to the South Coast AQMD. Big Box Retailers are still required to report volume sold to the manufacturers and to South Coast AQMD, this requirement is not changing the existing requirements. To avoid further confusion of reporting requirements between responsible parties, staff also clarified and added several definitions in subdivision (c) - definitions section of the rule.

The definitions of big box retailer, private labeler, and toll manufacturers have been revised for clarification. Additionally, new definitions for distributor, manufacturer, and retail outlet was also added to help delineate between reporting responsible parties. The definition of:

- Distributor is a new definition that has been added to clarify reporting requirements. The definition of distribution center has been removed and replaced with distributor as the new definition. Distributor is defined to include a person, company, firm, or establishment that sells or supplies regulated products into the South Coast AQMD for purpose of resale or distribution. This addition clarifies reporting applicability and requirements because previously, a distribution center was required to report a QER, but now is only required to maintain records pursuant to paragraph (e)(10). Whether a distributor is located inside or outside the South Coast AQMD region, if the distributor sells or distributes regulated products into the South Coast AQMD region, they are subject to paragraph (e)(10) and

must maintain records of annual sales for five years and must be made available upon request by the Executive Officer. Distributors are no longer required to report a QER to South Coast AQMD.

- Private Labeler only had minor revisions in formatting and structure for consistency with other South Coast AQMD rules, but elements of the definition have been incorporated into the definitions of a manufacturer and distributor. The elements incorporated are applicability to a person, company, firm, or establishment for clarification. The reporting and recordkeeping requirements for a private labeler remain unchanged and subject to paragraph (e)(1), (e)(2), (e)(3), (e)(5), (e)(7), (e)(8), (e)(9), and (e)(13). A private labeler is required to report all sales to distributors or retail outlets that sell into the South Coast AQMD.
- Toll Manufacturer has been revised to clarify that it is a third-party who manufacturers regulated products for a private labeler. The private labeler is subject to the reporting and recordkeeping requirements in paragraph (e)(1), (e)(2), (e)(3), (e)(5), (e)(7), (e)(8), (e)(9), and (e)(13).
- Manufacturer is a new definition that has been added to further clarify the party responsible for reporting provisions of the rule. A manufacturer is now required to submit a list of distributors to South Coast AQMD which will help ensure reporting completeness. A manufacturer is required to report all sales to retailers, distributors, and all sales by big box retailers that sell within the South Coat AQMD. Manufacturers are subject to the reporting requirements in paragraph (e)(1), (e)(2), (e)(3), (e)(5), (e)(7), (e)(8), (e)(9), (e)(11), and (e)(13). A manufacturer is required to report all sales to any distributor or retail outlet that sell into the South Coast AQMD.
- Retail outlet is a new definition added to clarify and ensure that all products sold directly to retailers or distributors, especially those distributed through big box retailers, are included in the reporting requirement. Since the reporting requirements for a distributor have changed. It is important to note now that any distributor who sells regulated products directly to a person as defined in Rule 102 is classified as a retail outlet.
- Big box retailer has been updated and references the new definition of retail outlet for clarity. A big box retailer is classified as a large chain retail outlet since they sell and supply directly to a person. Big box retailers are subject to the reporting requirements in paragraph (e)(4) and must report to both South Coast AQMD and the manufacturers or private labelers.

The proposed changes to the definition and reporting are intended to help improve any inconsistencies in data reporting between manufacturers, private labelers, big box retailers, and retail outlets. The changes also ensure all products sold directly to retailers and distributors are included or captured in the QER submissions. The following figure shows reporting responsibilities.

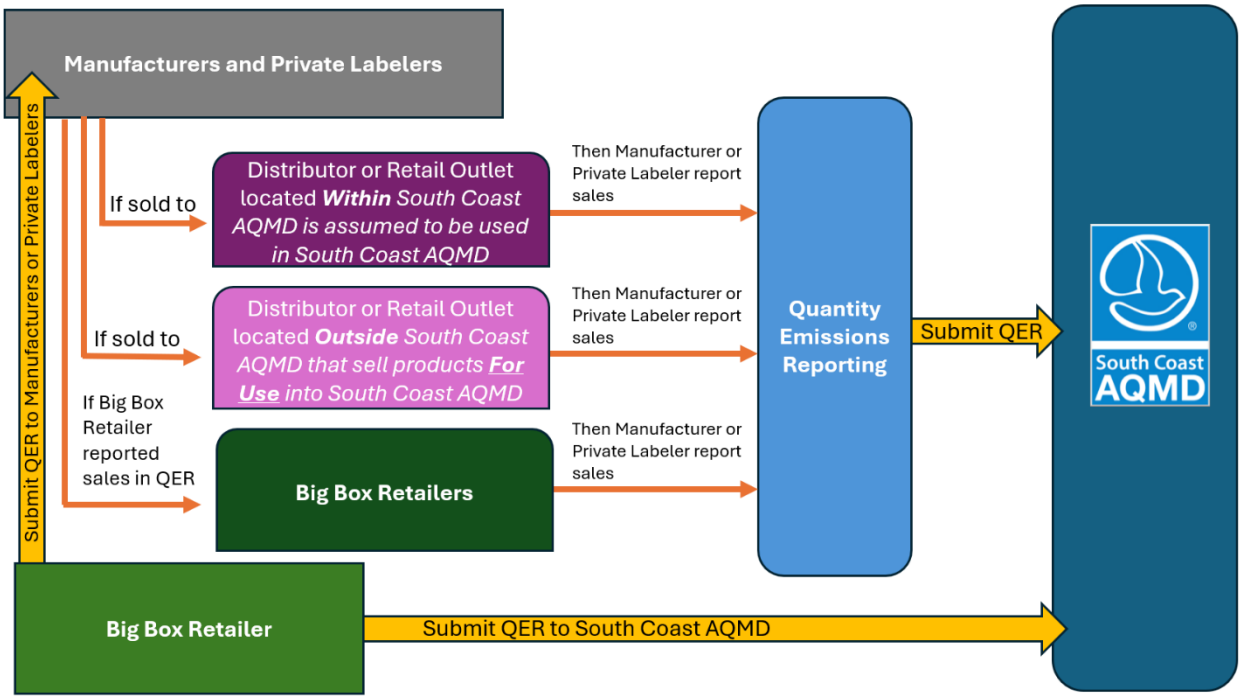


Figure 3-1: Reporting Requirement Flow Chart

The 55-gallon exemption in paragraph (e)(6) will be phased out beginning January 1, 2029. Paragraph (e)(6) now establishes that the 55-gallon exemption is now valid through calendar year 2028. Beginning January 1, 2029, the 55-gallon exemption is no longer available to facilities. Historically, no facility has reported to South Coast AQMD that they are using the exemption, so the exemption is no longer necessary and will be phased out. For any facility electing to use the 55-gallon exemption until the phase out effective date of January 1, 2029, the reporting date of September 1 of the following calendar has not changed. The provision also establishes a requirement that the final report must be submitted no later than September 1, 2029.

Subparagraph (e)(1)(G) was revised to clarify that manufacturers and private labelers must report the total annual quantity of each product sold and "distributed" for use into or within the South Coast AQMD not just products sold by the manufacturer. The provision also clarifies that the annual quantity of each product sold must include those products that are sold to retail outlets, distributors, through big box retailers.

Paragraph (e)(4) has been updated and now only requires big box retailers to submit QERs. Distributors are only required to maintain records and be made available upon request pursuant to paragraph (e)(10).

Paragraph (e)(7) is a new provision which establishes a requirement for manufacturers and private labelers to provide to the Executive Officer a list of their U.S. distributors in which they supply for sell their products into or within South Coast AQMD. The provision also specifies the type of information that must be submitted which includes name, address, contact person, phone number, and copies of any written notifications provided to an independent distributor such as notices stating that any product not complying with the rule limits cannot be sold within South Coast

AQMD. These new requirements are necessary to prevent potential rule circumvention. The manufacturer or private labeler does not need to submit a list annually, however if there are any changes to the distributor list, a new distributor list must be submitted to the Executive Officer by September 1st of the calendar year.

Paragraph (e)(8) is a new provision requiring all manufacturers and private labelers to submit to the Executive Officer any copies of written notification provided to a distributor pursuant to paragraph (j)(10). Any manufacturer or private labeler that informs a distributor in writing or electronic format regarding a product that should not be sold in South Coast AQMD must also provide a copy to the Executive Officer by September 1, 2027. Copies of any new notifications or updates to the notification must be provided to the Executive Officer by September 1st each calendar year.

Paragraph (e)(10) establishes a new requirement for distributors that sell products within the South Coast AQMD. Distributors are now required to maintain records of all annual sales for five years and must be made available to the executive officer upon request. Distributors or distribution centers along with big box retailers were previously required to directly report QERs to the manufacturers and private labelers pursuant to paragraph (e)(4). Distributors are now only required to maintain records and must be made available upon request to the Executive Officer.

Paragraph (e)(11) is a new provision for a regulated product with two or more manufacturers. Any regulated product with two or more manufacturers may designate in writing the manufacturer responsible for complying with the reporting requirements in the rule. The written agreement must be submitted to the executive officer by September 1, 2027 and if there are any changes or updates to the mutual agreement.

Paragraph (e)(5) contains the reporting timeline for manufacturers, private labelers, and big box retailers. The Table below shows the QER reporting schedule adopted during the 2017 amendment. "Big Box Retailers and Distribution Centers" in the heading has been changed to "Big Box Retailers: to provide clarity who must report. There is no change to the actual reporting date or timelines.

Table 3-3: QER Reporting Schedule

Reporting Deadlines		Reported Years
Manufacturers & Private Labelers	**Big Box Retailers**	
September 1, 2019	May 1, 2019	2017, 2018
September 1, 2022	May 1, 2022	2020, 2021
September 1, 2025	May 1, 2025	2023, 2024
September 1, 2030	May 1, 2030	2028, 2029
September 1, 2035	May 1, 2035	2033, 2034
September 1, 2040	May 1, 2040	2038, 2039

Test Methods [Subdivision (f)]

Staff is not proposing any major changes to this provision. This subdivision was streamlined for consistency with recently adopted VOC rule amendments

Administrative Requirements [Subdivision (g)]

Paragraph (g)(1)(D) establishes labeling requirements for manufacturers or private labelers that elect to comply with the alternative PW-MIR limits in Table 2 – Alternative PW-MIR VOC Limit in paragraph (d)(2) of the rule.

Prohibition of Sale and Use [Subdivision (h)]

Currently the rule prohibits the sale and use of regulated products that contain chloroform, ethylene dichloride, methylene chloride, perchloroethylene, and trichloroethylene and all Group II exempt solvents except volatile methyl siloxanes (VMS). Small, but non-negligible, quantities of VMS are widely used in silicone-based sealants. The Group II exempt solvent prohibition was included during the 2017 amendments, and it included an effective date of January 1, 2019. PAR 1168 prohibit the use of t-BAc and pCBtF under subdivision (h). This proposal is based on staff's assessment of t-BAc and pCBtF health risk and the Stationary Source Committee's direction to take a precautionary approach when considering expanding or including an exemption for any compound with a toxic endpoint. The proposal also includes a sell-through and use-through provision for products manufactured prior to the effective date of the t-BAc and pCBtF prohibition. Sell-through and use-through provision are already included in Rule 1168 when there is a VOC limit change for a Regulated Product. Based on stakeholder feedback and evaluation during the technology check-in conducted, staff proposes to delay the pCBtF prohibition for roof adhesive primers from January 1, 2027 to January 1 2030 and delay the sell-through date from January 1, 2028 to January 1, 2031, and use-through date from January 1, 2028 to January 1, 2032. Additionally, staff also added a new category to Table 4 of the rule for battery adhesives with a prohibition effective date of January 1, 2029, a sell-through date of January 1, 2030 and use-through date of January 1, 2031. The prohibition delay for the two categories and future-effective prohibition date for battery adhesive is to provide additional testing and certification time for pCBtF-free materials. PAR 1168 would prohibit the use, supply, sale, offer for sale, distribution, packaging, repackaging, or possession of Regulated Products for use within the South Coast AQMD that contain DMC in concentrations greater than 0.01 percent by weight or VMS in concentrations greater than 1.0 percent by weight.

The prohibition effective dates based on the product categories are illustrated in the following table included in the rule as below, the red box illustrates the categories with proposed changes.

Table 3-4: Prohibition Effective Dates

Category	Prohibition Effective Date	Sell-through End Date	Use-through End date
	pCBtF Prohibition Effective Dates		
Roof Adhesive Primer	January 1, 2030	January 1, 2031	January 1, 2032
Battery Adhesive	January 1, 2029	January 1, 2030	January 1, 2031
Cut Edge Single Ply Roof Membrane Sealant	January 1, 2027	January 1, 2028	January 1, 2028
EPDM/TPO Single Ply Roof Membrane Adhesive			
Roof Adhesive Primer			
Single Ply Roof Membrane Adhesive (Except EPDM/TPO)	January 1, 2025	January 1, 2028	January 1, 2028
Single Ply Roof membrane Sealants (Except Cut Edge)			
All Other Roof Sealants			
Roof Sealant Primer			
Clear, Paintable, and Immediately Water-Resistant Sealant	January 1, 2026	January 1, 2028	January 1, 2028
All Regulated Products not listed above	January 1, 2024	January 1, 2027	January 1, 2028
	t-BAc Prohibition Effective Dates		
All Regulated Products	January 1, 2024	January 1, 2027	January 1, 2028
	DMC and VMS Prohibition Effective Dates		
All Regulated Products	January 1, 2028	January 1, 2029	January 1, 2030

Exemptions [Subdivision (j)]

No facility has reported using the subparagraph (j)(5)(c) 55-gallon per year exemption, as required under paragraph (e)(6); therefore, staff is proposing to sunset this exemption as of January 1, 2029.

Paragraph (j)(10) requires any manufacturer or private labeler utilizing this exemption to comply with the new reporting requirements specified in subparagraph (e)(8).

Paragraph (j)(11) was originally subparagraph (j)(5)(C) which has been moved and revised. The revision now includes a sunset date of January 1, 2029. A facility may continue using the exemption until that date except for adhesives used in architectural applications; contact adhesives; special purpose contact adhesives; adhesives used on porous substrates; rubber vulcanization adhesives and top and trim adhesives.

CHAPTER 4 : IMPACT ASSESSMENT

EMISSIONS IMPACT

COSTS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

COMPARATIVE ANALYSIS

Emission Impacts

The baseline VOC emissions for PAR 1168 are based on 2020 and 2021 QERs reported by the manufacturers on September 2022. The estimated baseline VOC emissions are approximately 9 tpd and were determined by taking an average of the 8.6 and 9.4 tons per day VOC emissions reported for the 2020 and 2021 year in the QERs. The proposed amendments to Rule 1168 are not expected to result in additional VOC emissions; however, there will be delayed emission reductions. The amendments maintain existing VOC control limits but provide manufacturers with additional time to complete reformulations. Introduction of alternative PW-MIR reactivity-based limits is intended to support compliance without increasing ozone-forming potential. Overall, no emission increases are anticipated at full implementation; however, there will be delayed emission reductions because of delaying compliance deadlines. In addition, minor emission reductions may occur because of removing the 55-gallon per year exemption by eliminating an outdated allowance for limited use of non-compliant products, though staff is not aware of any facility using this exemption.

Three categories, including top and trim adhesives; rubber vulcanization adhesives; and clear, paintable, and immediately water-resistant sealants, have delayed emission reductions due to extended compliance timelines. Table 4-1 shows the delayed emission reductions from these categories based on 2022 QER reports.

Table 4-1: Delayed Emission Reductions (tpd)

Category	Delayed Emission Reductions (tpd)	Date
Top and trim adhesive	0.115	1/1/2030
Rubber vulcanization adhesive	0.020	1/1/2029
Clear, paintable, immediately water-resistant sealant	0.011	1/1/2029
Total	0.146	

Costs

Staff does not anticipate significant cost impacts associated with the proposed amendments. The timeline extensions reduce near-term compliance costs by providing manufacturers with additional time to develop and commercialize reformulated products. The optional PW-MIR compliance pathway may further reduce costs for categories facing technical reformulation barriers. Revisions to QER reporting requirements are largely administrative and are not expected to create substantial new burdens; manufacturers already track the necessary sales and distribution information. Sunsetting the 55-gallon exemption does not impose additional costs, because staff is not aware of any facility currently using the exemption and compliant products are available for all categories. As such, the proposed amendments are expected to have minimal economic impact.

Socioeconomic Impact Assessment

PAR 1168 is an area-source rule that is applicable to manufacturers and product supply chains as well as facilities and consumers that use adhesives and sealants. PAR 1168 would maintain

existing VOC limits for some product categories, establish alternative PW-MIR VOC limits for top and trim adhesives and roof adhesive primer, extend existing prohibition timelines for pCBtF for roof adhesive prim er, provide additional reformulation time to meet future-effective VOC limits for three product categories (i.e. top and trim adhesive, rubber vulcanization adhesive, and clear, paintable and immediately water-resistant sealants), and establish prohibition timelines for VMS and DMC.

Staff identified 12 manufacturers which are located within South Coast AQMD jurisdiction that formulate products that would be subject to PAR 1168 requirements with three manufacturers in the Paint, Coating and Adhesive Manufacturing (NAICS 3255) sector, and two manufacturers in the Plastics Product Manufacturing industry (NAICS 3261) sector. Each of seven other manufacturers belong to the following sectors: Residential Construction (NAICS 2361), Petroleum and Coal Products Manufacturing (NAICS 3241), Basic Chemical Manufacturing (NAICS 3251), Cement and Concrete Product Manufacturing (NAICS 3273), Chemical and Allied Products Merchant Wholesalers (NAICS 4246), Building Material and Supplies Dealers (NAICS 4441), and Grocery and Convenience Retailers (NAICS 4451).

For the portions of PAR 1168 that seek to extend the timelines for phasing out pCBtF while establishing lower VOC limits, an overall cost savings to manufacturers is expected because: 1) the proposed alternative PW-MIR VOC limits will provide manufacturers more flexibility when deciding whether reformulation is necessary; and 2) if reformulation is necessary, delaying the phase out of pCBtF will provide more time for manufacturers to reformulate, which in turn, will potentially lower the reformulation costs and result in smaller discounted total compliance costs over time. However, manufacturers have not provided specific data pertaining to which adhesives and sealants will either require reformulation or will retain the existing formulation by demonstrating compliance with the alternative PW-MIR VOC limits. For this reason, the amount of cost savings from implementing PAR 1168 cannot be quantified and as such, has not been included in this assessment.

Phasing out DMC is anticipated to result in minimal to no compliance costs due to its limited use in a small subset of battery-related products. Moreover, alternative compliant formulations without DMC are currently available at equivalent prices to formulations that contain DMC.

Lastly, while delaying the phase-out of pCBtF and implementation of the lowered VOC limits could also delay the corresponding health benefits from reducing emissions and potential exposures to pCBtF and VOC, any foregone health benefits cannot be quantified due to a lack of data. Nonetheless, when these requirements go into effect, the associated health benefits from reducing VOC and pCBtF emissions will be permanent.

California Environmental Quality Act (CEQA)

Pursuant to CEQA and South Coast AQMD's certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l), and South Coast AQMD Rule 110), the South Coast AQMD, as lead agency for PAR 1168, has prepared a Draft Subsequent Environmental Assessment (SEA) for the proposed project. The Draft SEA is a substitute CEQA document prepared pursuant to CEQA Guidelines Section 15252 and in lieu of a Subsequent Environmental Impact Report. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, the Draft SEA tiers off of: 1) the Final Environmental Assessment for the October 2017 amendments to Rule 1168; and 2) the Final SEA for the November 2022 amendments to Rule 1168. The Draft SEA was released and circulated for a 46-day public review and comment period

from September 18, 2026 to November 3, 2026 to provide public agencies and the public an opportunity to obtain, review, and comment on the environmental analysis. Comments made relative to the analysis in the Draft SEA and responses to the comments will be included in the Final SEA.

Draft Findings Under the Health and Safety Code

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, nonduplication, and reference, as defined in that section, based on relevant information presented at the hearing, this written analysis, and the rulemaking record. The draft findings are as follows:

Necessity – PAR 1168 is needed to allow additional time for roof sealant primer to be reformulated without pCBtF.

Authority – The South Coast AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702 and 41508.

Clarity – Proposed Amended Rule 1168 – Adhesive and Sealant Applications, is written and displayed so that the meaning can be easily understood by persons directly affected by it.

Consistency – Proposed Amended Rule 1168 – Adhesive and Sealant Applications, is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or federal and state regulations.

Nonduplication – Proposed Amended Rule 1168 – Adhesive and Sealant Applications, does not impose the same requirement as any existing state or federal regulation, and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference – In amending this rule, the South Coast AQMD Governing Board references the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40000, 40001, 40406, 40702, 40440(a), 40725 through 40728.5, 40920.6, 41508 and federal Clean Air Act Sections 110, 172, and 182(e).

Comparative Analysis

Under Health and Safety Code Section 40727.2, the South Coast AQMD is required to perform a comparative analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to VOC regulations for Adhesive and Sealant Applications..

	PAR 1168	CARB Consumer Products Regulation	U.S. EPA Control Techniques Guideline for Miscellaneous Industrial Adhesives	Ozone Transport Commission Model Rule for Consumer Products
Applicability	All use of adhesives, adhesive primers, sealants, or sealant primers excluding consumer and institutional use where the units of product, less packaging, weigh one pound or less and consist of less than 16 fluid ounces, and where there is an applicable VOC limit in the California Air Resources Board (CARB) Consumer Products Regulation.	Adhesives and sealants where the units of product, less packaging, weigh one pound or less and consist of 16 fluid ounces or less, that are sold for consumer and institutional use.	Voluntary guidelines to states to develop regulation to address adhesives used for industrial operations.	Sale and manufacture of consumer adhesives, adhesive primers, sealants, and sealant primers; and use restrictions that apply primarily to commercial/industrial applications.
Requirements	• VOC limits for adhesives used in architectural applications, industrial operations, and substrate specific applications. VOC limits for sealants used in architectural applications, roadway, and other applications. VOC limits for adhesive and sealant primers • PW-MIR alternative VOC limits for some categories • Most restrictive clause for products subject to multiple VOC limits	• VOC limits for adhesives and sealants sold as consumer products for personal or institutional use • Three-year sell through for products on shelf prior to effective date of rule • Most restrictive clause for products subject to multiple VOC limits	• VOC limits for adhesives, and adhesive primers used in industrial operations • Minimum transfer efficiency requirements • Minimum air pollution capture and control efficiency of 85% • Trash and debris containing VOC must be in closed containers • Containers used for mixing shall be closed except when in use	• VOC limits for adhesives used in architectural applications, industrial operations, and substrate specific applications. VOC limits for sealants used in architectural applications, roadway, and other applications. VOC limits for adhesive and sealant primers • Limit on VOC content of solvents used for cleaning, surface preparation or stripping

	PAR 1168	CARB Consumer Products Regulation	U.S. EPA Control Techniques Guideline for Miscellaneous Industrial Adhesives	Ozone Transport Commission Model Rule for Consumer Products
	• Sell-through for products on shelf prior to effective date of rule • Trash and debris containing VOC must be in closed containers • Minimum transfer efficiency requirements • Minimum air pollution capture efficiency of 90%; minimum air pollution reduction efficiency of 95% • Alternative Emission Control Plan • Storage restrictions for noncompliant products • Containers used for mixing shall be closed except when in use		• Closed containers for cleaning solvent storage	• VOC content limit for solvents used to clean application equipment and requirements to clean in enclosed cleaning system • Minimum air pollution capture and control efficiency of 85% • Trash and debris containing VOC must be in closed containers
Recordkeeping	Daily recordkeeping	None	None	Monthly recordkeeping
Administrative	• Container labeling of VOC content and date of manufacture • Sales reporting from manufacturers, private labelers, big box retailers, and distribution centers • Annual reporting of sales utilizing 55-gallon per year exemption effective until January 1, 2029	• Container labeling of VOC content and date of manufacture • Sales reporting from manufacturers	• None	• Container labeling of VOC content
Prohibitions	• Prohibition of sale of products that do not meet VOC content limit	• Prohibition of sale of products that do not meet VOC content limit	• No atomization of cleaning solvent	• Prohibition of sale of products that do not meet VOC content limit

	PAR 1168	CARB Consumer Products Regulation	U.S. EPA Control Techniques Guideline for Miscellaneous Industrial Adhesives	Ozone Transport Commission Model Rule for Consumer Products
	• Prohibition of sale of products containing certain chlorinated compounds • Prohibition of sale of products containing certain exempt compounds • Prohibition of sale of products containing pCBtF and t-BAc	• Prohibition of sale of products containing certain chlorinated compounds • Prohibition of sales of adhesives with any chemical compound that has a Global Warming Potential of 150 or greater		
Exemptions	• Exemption for adhesives and sealants subject to other source specific rules • Regulated Products packaged and applied using a propellant, 2 percent VOC by weight or half the applicable VOC limit, whichever is lower, • Low-solids Regulated Products, 20 grams per liter material or half the applicable VOC limit, whichever is lower • Record keeping exemption (end-user) for products that contain less than 20 g/L VOC content or half the applicable VOC limit, less water and less exempt compounds, whichever is lower • Exemption for containers less than one ounce • Rule does not apply to use in research and development • Exemption for products in certain categories when used in quantities of 55 gallons per	• Exemption for solvents defined as low vapor pressure • Exemption for containers less than one ounce	• None	• Rule does not apply to use in research and development • Rule does not apply to consumer products used for personal or institutional use if regulated by another agency • Exemption for products that contain less than 20 g/L VOC content • Exemption for contact adhesives sold in volumes of one gallon or less • Exemption for certain miscellaneous uses • Rule does not apply to uses where annual emissions are less than 200 pounds per year • Exemption for products when used in quantities of 55 gallons per year or less

	PAR 1168	CARB Consumer Products Regulation	U.S. EPA Control Techniques Guideline for Miscellaneous Industrial Adhesives	Ozone Transport Commission Model Rule for Consumer Products
	year or less effective until January 1, 2029 • Exemption for parade floats • Rule does not apply to consumer products used for personal or institutional use if regulated by CARB Consumer Product Regulation • Exemption for certain miscellaneous uses			

APPENDIX A: RESPONSE TO COMMENTS

Public Workshop Comments

Staff held a Public Workshop on September 30, 2026, to provide a summary of PAR 1168. The following is a summary of the verbal comments provided on PAR 1168 and staff responses.

Commentator #1 Rita Loof – RadTech International

Rita Loof sought clarification on the definition of 'Reactive Products' in the rule and whether it includes energy-curable materials. Also expressed concerns that under paragraphs (j)(8) and (e)(10), materials under 20 g/L should not be subject to QERs and stated that requiring reporting for zero- or near-zero-VOC products is unnecessary and creates an avoidable burden on industry, and commented that QERs are burdensome overall.

Staff Response to Commentator #1:

Staff revised the definition of Reactive Products in paragraph (c)(86) to include monomers used in energy curable materials.

Staff disagrees that zero- and near-zero-VOC products should be excluded from QERs. QER data for these products is needed to develop an accurate emissions inventory, track the market share of low-VOC technologies, and identify compliant products when assessing future VOC limits. Staff further notes that QERs are submitted only once every three to five years, which balances the need for representative data with the reporting burden on industry.

Commentator #2 Doug Raymond – National Aerosol Association

Doug Raymond voiced appreciation for including reactivity-based VOC limits and sought clarification on whether the labeling for PW-MIR limits should reflect the maximum limit or the actual limit. He asked staff to hold off on the prohibition for VMS and DMC until OEHHA provides clarity on their toxicity. He also sought clarification on why the sell-through and use-through dates are the same for categories in Table 4.

Staff Response to Commentator #2:

Staff appreciates the comment and continued support and assistance regarding reactivity-based VOC limits.

In regard to VOC labeling, the current rule requires (emphasis added):

> Each container shall display the VOC content of the Regulated Product, as recommended for application and **as determined by calculation based on product formulation or laboratory analysis** using the applicable test method.

Existing VOC labeling requires the VOC of the product to be displayed, as determined by test method or formulations, and not the maximum VOC, e.g., the Rule 1168 VOC limit. The PW-MIR label should align with the current VOC content labeling requirements.

Staff does not support delaying the prohibition of VMS or DCM. At this time, staff is not aware of many materials that contain VMS or DMC. The introduction of the MIR limits may encourage

manufacturers to re-formulate using VMS and/or DMC. Staff would like to prevent another unfortunate substitution and avoid another costly effort to reformulate regulated materials.

Regarding having the same sell-through and use-through dates, that change was a request from a manufacturer to provide more upfront time as long as the end date did not change. Staff agrees that it does not provide flexibility to have the same sell-through and use-through date and delayed the proposed use-through date in Table 4.

Commentator #3 Annabelle Klein – Environmental Policy Council for American Coating Association (ACA)

Annabelle Klein sought clarification on the written comment deadline and on the definitions of distributor and retail outlet where business roles may overlap. She mentioned that a comment letter will be submitted and stated that QER reporting under paragraph (e)(7) is unnecessary and burdensome, involves potentially confidential information, and that the Executive Officer can already request such data at any time. She requested clarification on whether distributors are inside or outside the District. She stated that ACA is in opposition to the proposed prohibition of DMC and VMS, and noted that for sell-through and use-through, the industry prefers an 18–24-month period.

Staff Response to Commentator #3:

Staff has revised the rule language to clarify the definitions of distributor, manufacturer, and retail outlet.

QER data is necessary to develop an accurate emissions inventory, track the market share of different products and categories, and identify compliant products when assessing future VOC limits. Staff further notes that QERs are submitted once every three to five years, which provides representative data while minimizing the reporting burden on industry.

Regarding the distributor list provided by manufacturers or private labelers, staff has revised the rule language to remove the annual requirement and to require the list to be submitted once and provide updates if the distributor(s) list changes. Information provided to the South Coast AQMD can be flagged as confidential business information.

Rule 1168 applies to products used by consumers, not products used in industrial settings where personal protective equipment may be utilized; therefore, staff recommends a precautionary approach. Several VMS compounds have been banned by the European Union in personal care products. The U.S. EPA has also conducted a draft risk evaluation under the Toxic Substances Control Act for a type of VMS product, with preliminary determinations indicating unreasonable risk to workers in manufacturing and industrial uses, as well as to consumers under certain conditions of use. Staff recognizes that a precautionary approach is more health protective, particularly for a rule that applies to consumer products, and that it is preferable to proactively prohibit a potentially toxic substance before manufacturers rely on it to comply with VOC limits. A strong example is t-BAc, where, due to suspected toxicity, staff allowed only limited exemptions. Manufacturers did not rely heavily on t-BAc, and its phase-out has been relatively straightforward compared to pCBtF, where a full exemption was granted and use became widespread. Given the potential concerns with VMS, staff recommends prohibiting their use in consumer products subject to this rule.

The proposed PW-MIR limits will cause manufacturers to seek alternative solvents to replace pCBtF. If DMC and VMS are not prohibited, they may become potential substitutes during reformulation despite having toxic endpoints. This would result in replacing one potentially harmful solvent with another. As studies on these compounds are finalized, manufacturers could again face challenges in reformulating away from DMC and VMS in the future. The intent of the proposed prohibition is to prevent this scenario and avoid repeated reformulation cycles driven by emerging toxicity concerns.

VOC rules generally provide one year for sell-through and one year use-through when compliant products are available. Staff is only aware of a few adhesives and sealants that currently contain VMS and/or DMC and is providing time for the manufacturers to ensure those products are not sold into our jurisdiction and providing one year for sell-through and an additional year for use-through, mostly out of an abundance of caution in case there are products of which we are not aware.

Commentator #4 Nicholas Georges – Household and Commercial Products Association (HCPA)

Nicholas George expressed support for alternative MIR limits. He stated that QERs and distributor lists should be provided upon request rather than on an annual basis. He opposed the prohibition of DMC and VMS and advised not to rely on draft EPA evaluations since they are subject to change.

Staff Response to Commentator #4:

QER data is necessary to develop an accurate emissions inventory, track the market share of various products and categories, and identify compliant products when assessing future VOC limits. Staff further notes that QERs are submitted once every three to five years, which provides representative data while minimizing reporting burden on industry.

Staff has revised the rule language to require the distributor list to be submitted once and then updated if there are changes, rather than on an annual basis.

For comments regarding the VMS and DMC prohibition, please refer to the response to Commenter #3.

Commentator #5 Katy Wolf – Consultant

Katy Wolf expressed support for South Coast AQMD position prohibiting DMC and VMS.

Staff Response to Commentator #5:

Staff appreciates the stakeholder’s comment and appreciates the input.

Commentator #6 Mary Sanger – Franklin International

Mary Sanger sought clarification on the definitions of distributor and retail outlet and asked whether 'distributor' refers to entities inside or outside the South Coast AQMD.

Staff Response to Commentator #6:

Staff has revised the definitions of distributor, manufacturer, and retail outlet in the draft rule language for clarification. In addition, several flowcharts has been included in Chapter 3 of the draft staff report to clearly outline the requirements for all stakeholders.

Commentator #7 David Waller – Adhesive and Sealant Council

David Waller sought clarification on the overall rulemaking process and public comment period and public hearing.

Staff Response to Commentator #7:

Staff clarified the rulemaking process and reviewed the associated dates with stakeholders.

COMMENT LETTERS

Comment Letter #1

South Coast AQMD Staff,

Thank you for the opportunity to provide comments on Proposed Amended Rule 1168.

We appreciate South Coast AQMD's efforts to reduce VOC emissions and address the use of compounds such as para-chlorobenzotrifluoride (pCBtF). However, we respectfully request that the newly proposed Battery Sealants category retain a VOC limit of 250 g/L, consistent with the previous "All Other Adhesives" category under which battery sealants were historically regulated, rather than the proposed 120 g/L limit.
Battery manufacturers are currently working to identify and qualify alternatives to pCBtF-containing adhesives and sealants in response to the Rule 1168 phaseout requirements. The process of identifying replacement products for battery manufacturing applications is especially challenging because battery sealants must meet stringent performance requirements related to chemical resistance, vibration resistance, structural integrity, electrical performance, durability, and long-term product reliability.

Manufacturers may ultimately identify alternative products that successfully eliminate pCBtF and comply with all other technical and regulatory requirements, but have VOC contents above 120 g/L while remaining below 250 g/L. **Establishing a 120 g/L limit for battery sealants could unnecessarily eliminate otherwise viable replacement technologies and significantly reduce the range of available alternatives.**
In addition, battery manufacturers that are already using battery sealants with VOC contents between 120 g/L and 250 g/L could face unintended compliance challenges under the proposed amendment. These companies may be required to reformulate products, requalify materials, or redesign manufacturing processes despite previously complying with Rule 1168 requirements. Such changes can be particularly burdensome in applications involving military, aerospace, telecommunications, industrial, and other critical-use batteries where extensive product qualification and customer approval processes are required before material substitutions can be implemented. 1-1

Retaining the historical VOC limit of 250 g/L for the Battery Sealants category would provide manufacturers with the flexibility needed to transition away from pCBtF while still maintaining proven product performance and regulatory compliance. This approach would support the rule's objectives without unnecessarily restricting available replacement technologies or disrupting existing compliant battery manufacturing operations within the South Coast Air Basin.

For these reasons, we respectfully request that South Coast AQMD maintain a VOC limit of 250 g/L for Battery Sealants in the final version of Proposed Amended Rule 1168.

Thank you for your consideration of these comments.

Julian Iannini
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Staff Response to Comment Letter #1

Response to Comment 1-1:

Staff disagrees with retaining a 250 grams per liter limit. The proposed 120 grams per liter limit is based on the pCBtF-containing product information the commenter provided to staff. That product contains such a low level of pCBtF that replacing it with a VOC would not increase the product's VOC content to a significant degree. Products currently used in battery manufacturing are already below 120 grams per liter, so the proposed limit is not expected to require reformulation beyond removing pCBtF and will not eliminate viable replacement technologies.

Staff created the separate Battery Adhesive category to give battery adhesive manufacturers additional time to transition away from pCBtF. Battery Adhesives may contain up to 1.0 percent pCBtF by weight until the January 1, 2029 final manufacture date, with sell-through until January 1, 2030 and use-through until January 1, 2031. Staff believes this timeline provides sufficient time to identify and qualify pCBtF-free alternatives, including for applications requiring extensive customer approval.

Comment Letter #2

From: Roshan Saxena <roshandsaxena@gmail.com>
Sent on: Wednesday, October 7, 2026 8:53:09 PM
To: Mojtaba Moghani <mmoghani@aqmd.gov>
Subject: [EXTERNAL] Public Comment on PAR 1168 — Reformulation Progress and Phase-Out Accountability

Follow up: Follow up
Start date: Wednesday, October 7, 2026 12:00:00 AM
Due date: Wednesday, October 7, 2026 12:00:00 AM

Dear Dr. Moghani and Rule 1168 Team,

Thank you for the technical work behind the proposed amendments to Rule 1168. I appreciate staff's continued engagement with manufacturers to understand product-performance constraints while pursuing lower emissions and the transition away from harmful solvents. Finding a workable path through those competing considerations requires careful assessment.

My name is Roshan Saxena. I'm a student in Santa Clara County, serve as a youth member of the Santa Clara County Sustainability Commission, and help lead the FUHSD Climate Collective. I'm commenting in my personal capacity.

Regarding the proposed extension of the para-chlorobenzotrifluoride, or pCBtF, prohibition for roof adhesive primers to January 2030, I recognize that a replacement must perform reliably in its intended application. If additional time is necessary, I would welcome an interim technology review before the new deadline, accompanied by a concise public account of the remaining barriers, testing progress, and availability of alternatives. This could build on the technology check-in process already used for the rule and help the public follow the transition. **2-1**

A straightforward timeline distinguishing the manufacturing prohibition from the subsequent sell-through and use-through periods would also be valuable. It could help purchasers understand when compliant products should become available and clarify when the phase-out's benefits are expected to occur. **2-2**

For the proposed alternative reactivity-based compliance pathways, an accessible explanation of how ozone-forming potential and solvent toxicity are evaluated separately would help prevent confusion. Meeting a reactivity limit should not be mistaken for a general finding that a product presents no toxic-exposure concern. **2-3**

I offer these suggestions in support of a technically realistic transition that remains clear and accountable throughout implementation. Thank you for your continued work, and for taking the time to consider this perspective.

Best,
Roshan Saxena

Staff Response to Comment Letter #2

Response to Comment 2-1:

Staff appreciates the commenter's interest in a transparent transition away from pCBtF. During the rule development process, staff met with roofing product manufacturers to assess their progress in phasing out pCBtF. Manufacturers reported that most roofing adhesive and sealant products have successfully transitioned to pCBtF-free formulations. However, Roof Adhesive Primers used in EPDM/TPO roofing systems require additional time to identify and qualify alternatives that meet adhesion and performance requirements. The proposed extension is therefore limited to this specific product category. It is based on the remaining technical challenges manufacturers identified, which have already been assessed during this rule amendment. Because the extension

is narrowly targeted and establishes a firm final manufacture date, staff does not believe an additional interim technology review is necessary. Staff will continue to track the transition through QERs, which require manufacturers to report the pCBtF content and sales volumes of their products.

Response to Comment 2-2:
Staff appreciates the comment. The proposed amendments establish, for each product category, a final manufacture date followed by separate sell-through and use-through dates, which are presented together in a single table in the rule. This structure lets purchasers and users identify when non-compliant products may no longer be manufactured, sold, or used. It is consistent with the approach used in other South Coast AQMD rules.

Response to Comment 2-3:
Staff thanks the commenter for this suggestion. The PW-MIR limits are an alternative compliance option to the VOC content limits for Roof Adhesive Primers and Top and Trim Adhesives. They measure a product's potential to form ozone, not the toxicity of its ingredients. Products complying through the PW-MIR option remain subject to all the rule's prohibitions on toxic compounds, including pCBtF and t-BAc. Staff acknowledges that the PW-MIR limits does not indicate that a product is less toxic, they are meant to reduce the ozone forming potential of the materials. The intent of Rule 1168 is to limit the use of certain toxic compounds and to limit the ozone formation potential with the PW-MIR limits meant to limit the ozone forming potential.

The South Coast AQMD's VOC webpages[3] includes information on reactivity-based VOC limits and the exempt compounds that have been prohibited due to toxicity. Staff uses those pages to provide information to the public and the regulated industry and posts information in plain written language to help the public understand South Coast AQMD's VOC regulations.

[3] https://www.aqmd.gov/home/rules-compliance/compliance/vocs

Comment Letter #3



October 14, 2026

Heather Farr
Planning and Rules Manager
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Re: Comments for Proposed Amended VOC Rule 1168-Preliminary Draft Rule Language

Dear Ms. Farr,

The Adhesive and Sealant Council, Inc. (ASC) appreciates the opportunity to provide comments to the South Coast Air Quality Management District on the Preliminary Draft Rule Language for Proposed Amended Rule 1168.

ASC is a trade association representing the North American adhesive and sealant value chain. The Council is comprised of 125 adhesive and sealant manufacturers, raw material and equipment suppliers, and distributors of all sizes, representing more than 75 percent of U.S.A. industry. Offering education, legislative advocacy, professional networking, and business growth solutions to its members, the ASC is the center of knowledge and a catalyst for industry growth on a global basis for manufacturers, suppliers, and end-users.

The Adhesive and Sealant Council supports South Coast AQMD's efforts to update Rule 1168 while encouraging the District to ensure that new compliance requirements are technically feasible, appropriately tailored, and supported by the available scientific and regulatory record. ASC offers the following preliminary comments and recommendations for the District's consideration.

1. **Comments on Definitions**

The definitions of "Distributor" and "Manufacturer" should be aligned with one another for clarity. "Manufacturer" specifies a Person, company, firm, or establishment while "Distributor" only specifies a Person. The lack of additional specified groups in "Distributor" could be interpreted as a misalignment, where only a single person can meet the definition of "Distributor". There are business cases where the Manufacturer is also the Distributor. It is not specified in the definitions that the Manufacturer's responsibility to comply with Rule 1168

3-1

overrides the Distributor classification. There are examples in other rules in which "Manufacturer" has been defined to include Person, company, firm, establishment, etc..., in addition to "Brand Owner" or "IP Owner". Adding clarification to the South Coast definition that the "Manufacturer" owns the brand or IP of the product may clarify the responsibility to comply with Rule 1168 in the case of multiple manufacturers, private labeling, and/or toll manufacturing.

The definition of Toll Manufacturer repeats the phrase "Regulated product". ASC recommends simplifying this definition to the following, "Toll manufacturer is a third-party manufacturer who produces regulated products for a private labeler."

In the definition of MIR, Title 17 CARB MIR Value code is referenced as the source for input into the PW-MIR calculation. There is no clarification in proposed amendments to Rule 1168 as to which version of MIR values are used. If MIR values are recalculated by CARB, updated MIR values may unintentionally push regulated products out of compliance for South Coast AQMD with no time allotted for reformulation or limit calculation. If CARB recalculates MIR values at a future date, MIR emission limits set by South Coast AQMD should be reevaluated for each product category, as well as amending Rule 1168 to maintain consistency between state and regional agencies. 3-1

ASC recommends adding the following language to the definition of MIR: "Title17, California Code of Regulations Sections 94700 and 94701, using MIR values as of October 2, 2010."

The definition of MIR uses g 03/ g VOC, referring to the units reported by CARB when defining each chemical or compounds' MIR value. The definition of PW-MIR includes a different unit (g 03/ g product). It is not explicitly stated that the MIR units (g 03/ g VOC) are converted into (g 03/ g product) by a calculation. Clarification should be made to eliminate opportunity for confusion by the public between the two units of measurement.

2. Comments on Proposed Restriction of VMS and DMC

ASC respectfully opposes the proposed restriction on cyclic, branched, or linear completely methylated siloxanes (VMS) and Dimethyl Carbonate (DMC). The proposed bans are without substantial scientific evidence or reasoning from other California chemical regulating agencies including OEHHA and the USEPA (e.g., Toxic Substances Control Act). This proposal deviates from standard South Coast AQMD processes and practices such as requesting technical assessments for all regulated products to obtain comprehensive understanding on the uses of such products within the District. A more targeted, risk-based approach would allow South Coast AQMD to address any air-quality or health concerns while avoiding restrictions that unnecessarily limit formulation options for manufacturers and products for consumers. ASC believes that any regulatory action should be based on assessment of the specific uses, concentrations, exposure pathways, and potential risks associated with their uses in adhesives and sealants. 3-2

3. Comments on applicability for Proposed Amended Rule 1168. Adhesive and Sealant Applications

(b) Applicability
"This rule applies to any person who uses or stores any adhesive, adhesive primers, sealants, or sealant primers in the South Coast AQMD……"

Storage is not use. If a product is only being stored in the district for reshipment elsewhere, it is not being applied or used, and therefore not contributing to any VOC emissions within the district. ASC recommends that the words "or stores" be deleted from this section. 3-2

3. Comments on Annual Reporting for US Distributors

ASC opposes the proposed modifications to recordkeeping that would require all Manufacturers and Private Labelers subject to this rule to provide a list of all their US distributors each calendar year. Manufacturers and Private Labelers should be required to provide information once, and update periodically, concerning Distributors that are located in, or sell or may sell regulated products into the South Coast AQMD. The QER structure does not require annual reporting, making this proposal inconsistent with South Coast AQMD reporting practices for QER. 3-3

4. Comments on Future Effective VOC Limits

ASC respectfully requests a modification to the proposed future VOC level (250 g/L) effective date of 01/01/2028 for the category of Clear, Paintable, and Immediately Water-Resistant (CPIWR) Sealants to the date of 01/01/2030. This would provide manufacturers and distributors with an appropriate business cycle timeline to reintroduce products to the marketplace, to educate and inform retail businesses and consumers about opportunities to utilize these products, and to avoid future marketplace disruptions. An alignment of future VOC levels for all three categories to the date of 01/01/2030 will provide consistency for South Coast AQMD with respect to continuing staff engagement with all adhesive and sealant categories, as opposed to the current piecemeal process. This recommended effective date of 01/01/2030 provides South Coast AQMD with the opportunity to conduct more comprehensive review of QER data to ensure greater accuracy for future regulatory modifications, to continue the Agency's commitment to engage with industry stakeholders to seek technical solutions that avoid elimination of adhesive and sealant categories, and to conduct a thorough technology assessment (market penetration, sales-weighted VOC information, manufacturer feedback, and product availability) for Clear, Paintable, and Immediately Water-Resistant Sealants that is consistent across all adhesive and sealant categories. 3-4

As South Coast AQMD is already aware, ASC remains in opposition to the VOC limit of 250 g/L for the Clear, Paintable, and Immediately Water-Resistant Sealants category. This level is unattainable for the unique performance in the specific applications for which they are intended despite thousands of research hours spent by industry attempting to successfully reach this compliance level.

In conclusion, the Adhesive and Sealant Council, Inc. appreciates South Coast AQMD consideration of the recommendations described above and looks forward to working constructively with the District as it continues its development of Proposed Amended Rule 1168.

Respectfully Submitted,



William E. Allmond
President

Staff Response to Comment Letter #3

Response to Comment 3-1:
Thank you for the comment. Staff agrees and has aligned the definition of Manufacturer and Distributor as recommended. Please see revised definitions.

Staff understands the concern regarding the potential for CARB to revise MIR values at a future date. MIR values are determined using a surrogate blend of chemicals intended to simulate current atmospheric conditions. As the air quality in the South Coast Air Basin changes over time, the MIR values could also change. CARB has updated the values once, they were initially published in 2001 and updated on October 2, 2010. Most of the MIR values did not change significantly when they were updated. Staff understand that industry wants certainly with VOC limits, but reactivity of different chemicals will change as our air quality changes. To provide time for manufacturers to adjust to potential MIR updates, staff included subparagraph (d)(2)(B) to allow up to three years from the date new MIR values are finalized Title 17, California Code of Regulations Sections 94700 and 94701 for the manufactures to continue to calculate the PW-MIR VOC content using the October 2, 2010, values. After three years, the updated MIR values will apply.

Staff clarified the distinction in the staff report regarding MIR values and PW-MIR as below:

> "Please note that MIR values are expressed in g O_3/g VOC for each ingredient, while PW-MIR is expressed in g O_3/g product because it reflects the sum of each ingredient's MIR multiplied by its weight fraction in the product. MIR is an ingredient-level value; PW-MIR is the product-level result of that calculation"

Response to Comment 3-2:
Thank you for your comment regarding VMS and DMC. Staff has evaluated many regulated products and has not identified widespread use of these two compounds. As stated earlier in chapter 2, when the U.S. EPA exempts compounds from the federal definition of a VOC, they only consider the photochemical reactivity, they do not consider other potential adverse factors such as toxicity. South Coast AQMD considers and evaluates considerations toxicity, potentially toxicity, or other environmental impacts prior to classifying a compound as exempt from the definition of

a VOC. The exempt compounds are then categorized in Rule 102 as either Group I compounds, which are not restricted from use, or Group II compounds, which are restricted or will be restricted in the future due to toxicity, potentially toxicity, or other environmental impacts.

Since the 1990s, Rule 1168 included prohibitions for the use of certain Group II exempt compounds, the compounds that have been prohibited have changed with different amendments.

Currently, the Group II prohibition excludes VMS, even though VMS was added to Rule 102 as Group II exempt compounds in the 1995 amendment. OEHHA has identified non-cancer chronic toxic endpoint for VMS, specifically impacting the liver and spleen, whereas the U.S. EPA preliminary evaluation on a type of VMS indicated unreasonable risk to workers in manufacturing and industrial use and to consumers through certain conditions of use. With that said, staff understands that the potential for small, but non-negligible, quantities of VMS can be found in certain types of silicone-based materials. VMS are not intentionally added but can be found as an impurity in certain materials used in regulated products. To address this, many recent VOC coatings rules have been amended to include a prohibition of VMS but at a higher prohibition level and is proposing at 1.0 percent by weight limit for PAR 1168, which will address potential impurity levels which may be found in certain adhesives and sealants. Staff discussed the health impacts and concerns regarding DMC in Chapter one of the staff report, please see page 1-7 for the discussion

Response to Comment 3-3:

Staff understands that storing of regulated product does not contribute to VOC emissions but disagrees with removing from the term "stores" from the applicability. Including "stores" enhances rule enforcement. When a South Coast AQMD inspector finds non-compliant products being stored in a work storage locker, a Notice of Violation can be issued. If the term "stores" is removed, the inspector would have to witness the "use" of the non-compliant product when it is more likely than not that products stored at a work site, in a work storage locker, or in a worker's vehicle are being used.

Response to Comment 3-4:

Staff appreciates the comment. However, staff does not agree that the proposed 250 g/L VOC limit should be withdrawn. This category was created in 2017 with the commitment from manufacturers to reformulate products to meet the 250 g/L limit. Manufacturers have had approximately eight years to reformulate, and staff extended the compliance date again during the 2022 amendment. In addition, staff notes that products in this category have been reported in QERs with VOC contents near 50 g/L, demonstrating that compliant formulations are technologically feasible.

Clear, Paintable, and Immediately Water-Resistant Sealants are used primarily in architectural applications where low-VOC products are already available and widely used. Roofing applications also have low-VOC options that meet the 300 g/L limit. The performance characteristics cited by stakeholders, particularly clarity and paintability, do not justify retaining a high-VOC carve-out in a basin with extreme ozone nonattainment.

Regarding the request to align all future-effective dates to 2030, staff does not recommend extending the VOC limit reduction timeline beyond the proposed date. Further delay would postpone emissions reductions from a category for which low-VOC alternatives are available, and for which manufacturers have already been provided with significant time to transition.

For these reasons, staff is maintaining the proposed 250 g/L limit, but the draft rule has been amended to allow the higher VOC limit to apply until January 1, 2029. Also please see comment letter #4, response 4-3.

Comment Letter #4

October 14, 2026

Heather Farr
Planning and Rules Manager
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
Submitted via electronic transmission

Subject: Proposed Amended Rule 1168 – Preliminary Draft Rule Language

Dear Ms. Farr,

The Adhesive and Sealant Council[1] (ASC), American Coatings Association[2] (ACA), Household & Commercial Products Association,[3] (HCPA) and National Aerosol Association[4] (NAA) (collectively referred to as "the Associations") appreciate the opportunity to provide comments to the South Coast Air Quality Management District (South Coast AQMD or District) on the Preliminary Draft Rule Language for Proposed Amended Rule (PAR) 1168.[5]

South Coast AQMD's Preliminary Draft Rule Language for PAR 1168 proposes the following: (1) additional time to phase out the use of parachlorobenzotrifluoride (pCBtF) from Roof Adhesive Primers; (2) additional time to reformulate products in order to meet future-effective lower VOC limits for Clear, Paintable, and Immediately Water-Resistant Sealant, Rubber Vulcanization

[1] Since 1958, the Adhesive and Sealant Council (ASC), a national nonprofit trade association, serves as the voice of the North American adhesive and sealant value chain. The Council is comprised of 125 adhesive and sealant manufacturers, raw material and equipment suppliers, distributors and industry consultants, representing more than 75% of the U.S. industry. We are the indispensable partner for the industry, widely recognized as the trusted, go-to source of information, the unifying voice for the industry, and the dynamic community of choice, driving the global advancement and sustainable future of member businesses.

[2] ACA is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory, and judicial issues, and provides forums for the advancement and promotion of the industry and coatings science.

[3] The Household & Commercial Products Association (HCPA) is the premier trade association representing companies that manufacture and sell $227 billion annually of trusted and familiar products used for cleaning, protecting, maintaining, and disinfecting homes and commercial environments. HCPA member companies employ over 300,000 people in the U.S. whose work helps consumers and workers to create cleaner, healthier and more productive lives.

[4] The National Aerosol Association (NAA) is an industry group devoted to serving the public's health, safety and hygiene needs through the aerosol product form. The NAA represents marketers, manufacturers, fillers and suppliers to the aerosol market.

[5] https://www.aqmd.gov/docs/default-source/rule-book/proposed-rules/1168/par-1168---pdrl.pdf

Adhesive, and Top and Trim Adhesive, as well as an alternative Maximum Incremental Reactivity (MIR) compliance option for Top and Trim Adhesive; (3) removal of the existing 55-gallon exemption; (4) updates to the rule's reporting and record keeping requirements; (5) additional prohibitions on certain toxic compounds, including dimethyl carbonate (DMC) and cyclic, branched, or linear completely methylated siloxanes (VMS); and (6) updates to the rule's exemptions section.

The Associations support South Coast AQMD's efforts to update Rule 1168 while encouraging the District to ensure that any new compliance requirements are technically feasible, appropriately tailored, and supported by the available scientific and regulatory record. Accordingly, the Associations offer the following preliminary comments and recommendations for the District's consideration.

I. Comments on Definitions

The Associations have the following comments regarding the proposed definitions in South Coast AQMD's Preliminary Draft Rule Language for PAR 1168:

a) Relationship Among Definitions and Applicable Obligations

An entity may fall within multiple definitions under Rule 1168. For example, an entity may qualify as both a manufacturer and a toll manufacturer, a manufacturer and a distributor, or a distributor and retail outlet. The Associations recommend that South Coast AQMD clarify the relationship among these definitions and specify how the applicable requirements and obligations apply when an entity falls within more than one category. This clarification would help ensure that regulated entities can readily determine their respective responsibilities and understand how to comply with Rule 1168.

b) Clarification of the Definition of "Manufacturer"

The Associations recommend clarifying the definition of "Manufacturer" to address circumstances in which the brand owner or intellectual property (IP) owner may differ from the entity that physically manufactures the product. Specifically, the District should consider clarifying whether, and under what circumstances, a brand owner or IP owner would be considered a manufacturer for purposes of Rule 1168. This clarification would help establish responsibility for compliance when manufacturing, branding, and intellectual property ownership involve different entities. 4-1

c) Clarification of the Definition of "Distributor"

The proposed definition of "Manufacturer" refers to a "person, company, firm, or establishment," whereas the definition of "Distributor" refers only to a "person." The Associations recommend revising the definition of "Distributor" to clarify that it may apply to a company, firm, establishment, or other applicable business entity, as appropriate. This revision would promote consistency between the definitions and help avoid ambiguity regarding which entities may be subject to the requirements applicable to distributors.

d) Definition of "Consumer"

The proposed definition of "Distributor" and "Retail Outlet" includes the term "consumer," which is not currently defined in Rule 1168. The Associations recommend that the District define "consumer" or otherwise clarify the intended meaning of the term in this context. Establishing a clear definition would help regulated entities consistently interpret the scope of the proposed definition of "Distributor" and "Retail Outlet" and determine which transactions and entities fall within its applicability.

e) Consistency in the Definition of Maximum Incremental Reactivity

The Associations note a difference between the definitions of MIR used by South Coast AQMD and the corresponding definition used by the California Air Resources Board (CARB). The Associations recommend that the District align its definition of MIR with CARB's definition to promote consistency between the two regulatory programs and minimize potential confusion for entities subject to both sets of requirements. 4-1

Additionally, the Associations recommend that the District specify October 2, 2010, as the reference date for the MIR values incorporated into Rule 1168. CARB may revise MIR values in the future through subsequent regulatory actions. Without a clearly specified reference date, future revisions to CARB's MIR values could create uncertainty regarding which values apply under Rule 1168 and whether the District's regulatory limits remain tied to the values originally used to establish them. Specifying October 2, 2010, as the reference date would provide greater certainty regarding the applicable MIR values and help ensure that any subsequent changes are addressed through an appropriate rulemaking process

II. PCBTF Phaseout

The Associations support South Coast AQMD's provision of additional time to phase out pCBtF from Roof Adhesive Primers. However, the Associations believe that additional time is warranted for distributors and end users to transition to reformulated products and exhaust existing inventories.

As currently drafted, the proposed sell-through and use-through prohibition timelines for Roof Adhesive Primers are the same. Meanwhile, the proposed sell-through and use-through prohibition timelines for Battery Adhesives and All Regulated Products containing DMC and VMS differ by one year. The Associations respectfully request that South Coast AQMD provide an additional year for end users of Roof Adhesive Primers to use existing inventories of these products by extending the use-through date to January 1, 2032. 4-2

Providing additional time for end users to use existing inventory would help avoid unnecessary product disposal and would provide manufacturers, distributors, and customers with sufficient time to transition to reformulated products in an orderly manner. This additional transition period is particularly important because products may remain in distributor or customer inventories for extended periods, and immediate implementation of a use-through prohibition could result in the disposal of otherwise usable products.

Accordingly, the Associations respectfully request that South Coast AQMD extend the use-through period by one year.

III. Future Effective VOC Limits

In general, the Associations recognize and support South Coast AQMD's responsibility to protect air quality and public health. However, we have significant concerns with the ability of manufacturers to meet a future VOC limit of 250 g/L for Clear, Paintable, and Immediately Water-Resistant Sealant in conjunction with restrictions on pCBtF and other VOC-exempt compounds. Many regulated entities have already invested a significant amount of time and resources in attempting to reformulate their products within this category to meet the District's proposed VOC limit. And yet, while proposing to extend the future effective date acknowledges the difficulty that manufacturers are experiencing in meeting the 250 g/L limit, these entities have ultimately found that compliance with the proposed limit of 250 g/L for Clear, Paintable, and Immediately Water-Resistant Sealants is technologically infeasible.

The Associations therefore respectfully recommend that South Coast AQMD withdraw the proposed future-effective 250 g/L VOC limit pending completion of a comprehensive technology assessment addressing the feasibility of achieving the proposed limit while maintaining the performance characteristics required for these products. 4-3

Additionally, different future-effective dates for the new proposed VOC limits can cause confusion for stakeholders. The Associations therefore recommend that the future-effective VOC limits proposed for the affected product categories be assigned a common future-effective date of January 1, 2030, with appropriate corresponding sell-through and use-through timeframes.

The Associations believe that aligning the future-effective dates would provide manufacturers and other affected stakeholders with a clearer and more consistent compliance framework and sufficient time to evaluate, develop, test, and commercialize reformulated products.

IV. Alternative MIR Compliance Option

The Associations appreciate South Coast AQMD's inclusion of an alternative MIR-based compliance option. We support the availability of this alternative pathway and encourage South Coast AQMD to consider incorporating additional MIR-based compliance options in future rulemakings where appropriate.

Alternative compliance pathways can provide manufacturers with additional flexibility in meeting air quality requirements while maintaining the District's environmental objectives and encouraging innovation in product formulation. The Associations therefore support including the proposed alternative MIR compliance option for Roof Adhesive Primer and Top and Trim Adhesive. We also encourage the development of additional alternative MIR compliance options for other regulated product categories. 4-4

V. Recordkeeping and Reporting

The Associations oppose the proposed modifications to Rule 1168's recordkeeping and reporting provisions that would require all Manufacturers and Private Labelers subject to this rule to provide South Coast AQMD's Executive Officer with a list of all their U.S. Distributors each calendar year.

The Associations believe that the proposed reporting requirement is broader than necessary to achieve South Coast AQMD's compliance and enforcement objectives. Moreover, the proposal unduly burdens regulated entities by mandating the disclosure of confidential and/or impractical to obtain information (e.g., an identifiable contact person for every Distributor that is listed, etc.). Accordingly, given the overly expansive nature of the proposed reporting requirement as well as the District's existing authority to request this information from regulated entities, the Associations recommend the removal of this proposed reporting requirement in its entirety. In the alternative, however, Manufacturers and Private Labelers should be required to either (1) provide information concerning Distributors that are located in, or sell regulated products into, the South Coast region, rather than a comprehensive list of all U.S. Distributors; or (2) certify that their regulated products are compliant with Rule 1168, therefore exempting them from providing South Coast AQMD's Executive Officer with a distributor list.

There is little apparent regulatory benefit to requiring a Manufacturer or Private Labeler to report distributors that have no connection to the South Coast region. For example, a Distributor located on the East Coast that does not sell and has no plans to sell regulated products into the South Coast region would not appear to provide useful information for purposes of South Coast AQMD's implementation or enforcement of Rule 1168. 4-5

Additionally, we do not believe this information needs to be reported on a yearly basis. ASC, ACA, HCPA, and NAA believe that the administrative burden of reporting this information on a yearly basis will not provide adequate benefit to South Coast AQMD.

Instead, the Associations recommend that Manufacturers and Private Labelers maintain sufficient information to identify Distributors located in or selling regulated products into the South Coast region and provide that information to South Coast AQMD upon request. An initial submission could be provided, with subsequent updates required only when there is a material change to the Distributor information previously provided.

This approach would provide South Coast AQMD with access to the information necessary to support compliance and enforcement while avoiding the unnecessary administrative burden associated with submitting a comprehensive list of all U.S. Distributors on an annual basis.

Accordingly, the Associations respectfully request that South Coast AQMD to remove the proposed reporting requirement or, in the alternative, revise the proposed reporting requirement to: (1) limit the required Distributor information to Distributors located in or selling regulated products into the South Coast region, requiring updates only when there is a

substantial change to the information previously submitted, with South Coast AQMD retaining the ability to request updated information as needed; or (2) have regulated entities certify that their products are compliant with Rule 1168, therefore exempting them from providing South Coast AQMD's Executive Officer with a distributor list.

VI. Proposed Restriction of VMS and DMC

ASC, ACA, HCPA, and NAA respectfully oppose South Coast AQMD's proposed restriction on VMS and DMC because the Associations do not believe that the current record provides a sufficient basis for a categorical prohibition of these substances in the products and uses regulated under Rule 1168.

A determination that a substance warrants regulatory attention in some context does not, by itself, establish that a categorical prohibition is warranted for every product, concentration, exposure scenario, or use within the scope of Rule 1168. A more targeted, risk-based approach would allow South Coast AQMD to address any air-quality or health concerns while avoiding restrictions that could unnecessarily limit formulation options for manufacturers and consumers.

The Associations believe that South Coast AQMD should exercise caution in relying on restrictions adopted in the European Union (EU) as justification for a categorical prohibition of VMS under Rule 1168. The regulatory framework in the EU differs from the South Coast AQMD regulatory framework, and EU restrictions should be considered in their specific regulatory context. The Associations do not suggest that regulatory actions taken by other jurisdictions are irrelevant to South Coast AQMD's consideration of these substances. However, such actions should be evaluated in light of the specific substance, product category, exposure pathway, and regulatory framework addressed by the underlying measure. The cited EU restrictions addressing D4, D5, and D6 apply to specified personal care products and other consumer/professional products and are not a blanket prohibition of all VMS across all product categories. Accordingly, the existence of these restrictions does not, by itself, establish that a categorical prohibition of VMS is warranted for adhesives and sealants regulated under Rule 1168.

4-6

Similarly, the Associations believe that the Environmental Protection Agency's (EPA) work under the Toxic Substances Control Act (TSCA) does not provide a sufficient basis for a categorical prohibition of VMS under PAR 1168. EPA's September 2025 Draft Risk Evaluation concerns octamethylcyclotetrasiloxane (D4) and does not constitute a risk evaluation of VMS as a broad chemical category. Further, the D4 evaluation remains subject to the scientific and regulatory process, and modifications can be made before EPA issues a final risk evaluation. EPA's preliminary conclusions vary among conditions of use (COUs), and the Agency expressly distinguishes conditions for which it identified unreasonable risks from conditions for which it did not. The Associations believe this distinction is important because the finding of unreasonable risk for a particular COU does not establish that every use of D4, much less every VMS, presents an unreasonable risk. Most of the preliminary conclusions identify unreasonable risk related to occupational COUs for which the use of personal protective equipment (PPE) was

not reflected in EPA's risk determinations, although EPA stated that the use of PPE would reduce the risk. Additionally, EPA's consumer COU identified as presenting unreasonable risk involves products not subject to Rule 1168. For these reasons, the Associations respectfully submit that it would be premature for South Coast AQMD to rely on a draft federal assessment concerning a specific substance and specific conditions of use as the basis for imposing a broader, categorical prohibition on VMS in adhesives and sealants.

ASC, ACA, HCPA, and NAA have similar concerns with DMC and believe that South Coast AQMD has not provided sufficient justification for restricting DMC in the products and uses regulated under Rule 1168. As with VMS, the Associations believe that any regulatory action concerning DMC should be based on an assessment of the specific uses, concentrations, exposure pathways, and potential risks associated with its use in adhesives and sealants. The record should demonstrate why a categorical prohibition is necessary rather than relying on concerns associated with other products, uses, or exposure scenarios. Without a use-specific analysis addressing DMC in adhesives and sealants, the Associations do not believe that South Coast AQMD should proceed with the proposed restriction. 4-6

The Associations therefore respectfully request that South Coast AQMD remove the proposed categorical restrictions on VMS and DMC from PAR 1168. At a minimum, the District should defer adoption of these restrictions until it has developed a sufficient substance- and use-specific record demonstrating that such restrictions are warranted.

VII. Proposed Revision to Exemptions

The Associations are concerned that South Coast AQMD's provision providing that Rule 1168's VOC limits shall not apply to Manufacturers or Private Labelers who supply regulated products to an independent Distributor who is informed, in writing, that the products are not to be used in the South Coast region could be misinterpreted. Compliance with this exemption could be interpreted differently by Manufacturers and Private Labelers alike. As such, the Associations recommend that South Coast AQMD provide additional clarification (e.g. examples of "[d]etails or copies of any written notification provided to an independent Distributor," explanatory guidance documents, etc.) to help reduce any ambiguity within Rule 1168 and ensure that regulated entities avoid any unintended compliance challenges. 4-7

Additionally, the Associations recommend that notification letters be maintained by Manufacturers and Private Labelers for a period of at least three years and provided to South Coast AQMD upon request, rather than submitted routinely. While the Associations support maintaining appropriate documentation to demonstrate compliance, the rational and regulatory benefit of requiring routine submission of these notification letters to South Coast AQMD are unclear. Revising the provision to require submission upon request would preserve the District's ability to review relevant records, while reducing unnecessary administrative burdens on both regulated entities and the District.

VIII. Conclusion

ASC, ACA, HCPA, and NAA appreciate the opportunity to provide these comments and look forward to continuing our engagement with South Coast AQMD as the rulemaking process moves forward.

The Associations respectfully request that South Coast AQMD consider the recommendations described above, including providing an additional year for end users to use existing pCBtF-containing inventories, appropriately tailoring the proposed Distributor reporting requirements, retaining the alternative MIR compliance option, and reconsidering the proposed categorical restrictions on VMS and DMC.

We appreciate South Coast AQMD's consideration of these comments and look forward to working constructively with the District as it continues its development of PAR 1168.

Respectfully Submitted,

David Wawer
ASC

Annebelle Klein
ACA

Nicholas B. Georges
HCPA

Doug Raymond
NAA

Staff Response to Comment Letter #4

Response to Comment 4-1:

Staff has revised the definitions of distributor, manufacturer, and retail outlet in the draft rule language for clarification. In addition, a flowchart has been included in Chapter 3 of the staff report to clearly outline the reporting requirements for all stakeholders. Please see response to Comment Letter #3, Response 3-1.

Response to Comment 4-1 a:

Staff revised the definitions to be clearer. The party whose name is on the product label has the ultimate responsibility to comply with the rule and submit required reports. A toll manufacture who makes products for a private labeler would not have the responsibility of submitting required reports unless there is an agreement with the private labeler to submit the reports. In the case of a manufacturer who distributes their products, they are still considered the manufacturer under the rule. The definition of a distributor clearly states that manufacturers are not distributors for the purposes of the rule; therefore, a manufacturer who also distributes their products defaults to a manufacturer and is responsible for submitting required reports. The definition of a retail outlet states that a distributor who sell regulated products directly to end-users in the South Coast AQMD is considered a retail outlet; therefore, a distributor/retailer selling to end-users' defaults to a

retailer for the purpose of the rule. Staff has worked to clarify the rule language regarding cases where an entity has a dual role. Please see response to Comment Letter #3, Response 3-1.

Response to Comment 4-1 b:
The rule addresses both manufacturers, toll manufacturers, and private labelers to make the requirements clear. The rule is not prescriptive to who must report but the entity whose name is on the label is ultimately responsible for submitting the required reports. Please see response to Comment Letter #3, Response 3-1.

Response to Comment 4-1 c:
Staff made the requested change.

Response to Comment 4-1 d:
Staff changed from the undefined term "consumer" to "end-user" which is plain language that is more easily understood.

Response to Comment 4-1 e:
Staff strives to be consistent with other regulations and other South Coast AQMD rules, but sometimes our definitions differ. For clarity, here are the two definitions:

> South Coast AQMD:
> MAXIMUM INCREMENTAL REACTIVITY (MIR) means the measure of the photochemical reactivity of a VOC, which estimates the weight of ozone produced from a weight of VOC expressed as gram of ozone per gram of VOC (g O_3 /g VOC). MIR values for individual VOCs are specified in Title 17, California Code of Regulations Sections 94700 and 94701
>
> CARB:
> Maximum Incremental Reactivity (MIR)" means the maximum change in weight of ozone formed by adding a compound to the Base ROG Mixture per weight of compound added, expressed to hundredths of a gram (g O_3/g ROC).

The South Coast AQMD is not technically incorrect and references the California Code of Regulations where the MIR values are located, which is helpful for the regulated industry. Further, the MIR definition is currently used in South Coast AQMD Rules 1124, 1136, 1143, 1151, 1168, and 1171; therefore, staff prefers to maintain the proposed definition.

Please also see response to Comment Letter #3, Response 3-1.

Response to Comment 4-2:
The proposed use through date for roof adhesive primers has been extended by one year in the draft rule.

Response to Comment 4-3:
Please see comment letter #3, response 3-4.

Response to Comment 4-4:
Staff appreciates the comment and stakeholder support for alternative PW-MIR limits.

Response to Comment 4-5:
Staff has revised the rule language to require the distributor list to be submitted once and only updated when there are changes, rather than on an annual basis.

Response to Comment 4-6:
Rule 1168 applies to products used by consumers, not products used in industrial settings where personal protective equipment may be utilized; therefore, staff recommends a precautionary approach. Several VMS compounds have been banned by the European Union in personal care products. The U.S. EPA has also conducted a draft risk evaluation under the Toxic Substances Control Act for a type of VMS product, with preliminary determinations indicating unreasonable risk to workers in manufacturing and industrial uses, as well as to consumers under certain conditions of use. Staff recognizes that a precautionary approach is more health protective, particularly for a rule that applies to consumer products, and that it is preferable to proactively prohibit a potentially toxic substance before manufacturers rely on it to comply with VOC limits. A strong example is t-BAc, where, due to suspected toxicity, staff allowed only limited exemptions. Manufacturers did not rely heavily on t-BAc, and its phase-out has been relatively straightforward compared to pCBtF, where a full exemption was granted and use became widespread. Given the potential concerns with VMS, staff recommends prohibiting their use in consumer products subject to this rule.

Manufacturers will seek alternative solvents to replace pCBtF due to the proposed PW-MIR VOC limits. If DMC and VMS are not prohibited, they may become potential substitutes during reformulation despite having toxic endpoints. This would result in replacing one potentially harmful solvent with another. As studies on these compounds are finalized, manufacturers could again face challenges in reformulating away from DMC and VMS in the future. The intent of the proposed prohibition is to prevent this scenario and avoid repeated reformulation cycles driven by emerging toxicity concerns

Response to Comment 4-7:
South Coast AQMD tries not to be prescriptive and create strict requirements for how manufacturers inform distributors that products are not compliant for sale within the South Coast AQMD. Providing letters on company letterhead, labels on shipping containers, labels on products are all reasonable methods to inform the supply chain about the compliance status. The notice should not be buried in the fine print or vague on the compliance status, e.g., stating the product is not compliant for sale in all parts of California is not specific enough to provide coverage to the manufacturer that they properly informed their supply chain that a material is not compliant for sale within the South Coast AQMD.

Regarding supplying those records annually, staff revised the requirement to only require the information to be submitted once and updated if there are changes in the future.

Comment Letter #5



October 14, 2026

Mr. Sarady Ka
Program Supervisor
South Coast Air Quality Management District
ska@aqmd.gov

Re: OPPOSE Proposed Rule 1168—Adhesives

RadTech International is the premier trade association in North America for Ultraviolet/Electron Beam/Light Emitting Diode (UV/EB/LED) technology. We speak on behalf of our over 800 members who are involved in a myriad of industry sectors including energy curable adhesives. UV/EB/LED processes are all electric, eliminating the need for add-on control devices thereby preventing emissions of criteria pollutants (Nitrogen Oxides) and Greenhouse Gases. The materials are not formulated with conventional solvents and therefore the emissions of Volatile Organic Contaminants (VOCs) are negligible. The very low VOC content of these materials has rendered the traditional VOC test method (EPA Method 24) unsuitable as the VOC content is within the error margin of the test (plus or minus 20 grams/liter). While RadTech appreciated the opportunity to participate in the public workshops for Proposed Amended Rule (PAR) 1168, we have serious concerns with the proposal and hereby reiterate the issues we raised.

Definition of Reactive Products—Section (c) 86

During the workshop, RadTech received confirmation from staff that the definition of "Reactive Products" would cover energy curable (UV/EB/LED) materials. We ask that the definition be clarify to read:

*Reactive Products include, but are not limited to, polyurethane, **energy curable**, and two-component Regulated Products.*

5-1

Burdensome and Unnecessary Reporting and Recordkeeping—Section (j)(8)

As mentioned during the workshop, we strongly oppose the extensive reporting and recordkeeping requirements in PAR 1168. While these requirements may make sense to monitor products that contain the toxic materials the district seeks to phase out, they are unnecessary for UV/EB/LED products that are not formulated with the materials in question and are cleaner that what the rule allows. The current exemption for materials with Volatile Organic Compound

5-2

(VOC) of less than 20 grams per liter should also apply to Quantity Emissions Reports. While we appreciate the district's efforts to seek out compliant technologies, we do not think that burdening our members and their customers to file additional reports, is a good approach. The district can simply conduct a technology assessment as it has done for various other rules. Compliance with Rule 109 (Recordkeeping) should be sufficient for materials that have VOC content of less than 20 grams per liter. 5-2

We echo the concerns raised by the American Coatings Association and other stakeholders regarding the requirement for businesses to disclose confidential business information and trade secrets. While PAR 1168 includes some language related to efforts to label information as "confidential", once it is in the district's possession, it will be up to the judicial system to determine whether or not it is disclosable to the public. Any benefit the district may gain from the extensive reporting requirements does not outweigh the negative impact the policy will have on the industry.

Test Method for UV/EB/LED Thin Films-- Section (f)

RadTech commends district staff for acknowledging (Page 4 of Rule 1168 Guidance Document) that for UV/EB/LED thin film products:

"…at this time, there is no method that can be used for enforcement purposes."

We also appreciate the inclusion of ASTM D7767-11 "as a tool for manufacturers to determine the VOC content of thin film energy curable products" (Page 4). The Guidance document (Page 5) states that ASTM D7767-11 is not appropriate for enforcement purposes. We disagree and believe that ASTM7767-11 can be appropriately used by the district for enforcement purposes. RadTech does not support the concept of creating two different mechanisms (one for "information-only" and one for enforcement) to test materials. ASTM D7767-11 is the best tool available today to measure VOC emissions from UV/EB/LED thin film materials. We reiterate our calls for the district to recognize ASTM D7767-11. 5-3

We remain hopeful that staff will incorporate our proposed changes into PAR 1168 so as to have a policy that works for the environment as well as the business community. I look forward to additional conversations on this matter.

Sincerely,

Rita Loof

Rita M. Loof
Director, Environmental Affairs

Staff Response to Comment Letter #5

Response to Comment 5-1:

Staff revised the definition of "Reactive Products" in the rule language to include energy-curable materials in the list of other reactive products.

Response to Comment 5-2:

Staff appreciates the comment but does not agree that UV/EB/LED products or other low-VOC materials should be excluded from QER reporting or recordkeeping requirements. QER data is necessary to develop an accurate emissions inventory, track the market share of various products and categories, and identify compliant products when assessing future VOC limits. Staff further notes that QERs are submitted once every three to five years, which provides representative data while minimizing the reporting burden on industry.

Regarding concerns about confidential business information, staff notes that information submitted to the South Coast AQMD may be designated as confidential, consistent with District procedures and applicable law. Staff has also revised the rule language to reduce burden where appropriate, including modifying the distributor-list requirement so that manufacturers and private labelers submit the list once and update it only when changes occur, rather than submitting it annually.

Response to Comment 5-3:

Staff acknowledges the comment regarding the mentioned test method. However, ASTM International D7767-11 "Standard Test Method to Measure Volatiles from Radiation Curable Acrylate Monomers, Oligomers and Blends and Thin Coatings Made from Them" is not a U.S. EPA approved test method and cannot be used to enforce a SIP approved rule and therefore will not be added to PAR 1168. To avoid confusion and provide clarification regarding the procedure for reporting VOC content for energy curable thin films, the following description is now included on the South Coast AQMD website to provide further clarification:

> Coatings products sold or used within South Coast AQMD's jurisdiction may be required to include VOC content on product labels pursuant to Rule 443.1 ─ Labeling of Materials Containing Organic Solvents. VOC content for labeling purposes may be determined by calculation from formulation data and/or by test results. The approved VOC test methods appropriate for determining product VOC content, whether for labeling or compliance purposes, vary by coating application. Please refer to the specific VOC rule applicable to the coating product to identify the required test methods and VOC calculation procedures. Further information on VOC test methods is available at: https://www.aqmd.gov/home/rules-compliance/compliance/vocs/calculations. For energy-curable coatings, VOC content may be determined using ASTM D5403 ─ Standard Test Methods for Volatile Content of Radiation Curable Materials, which is an approved method for establishing VOC content for both labeling and compliance purposes. However, thin-film energy-curable coatings (including UV/EB/LED-cured materials applied with very low film thickness) currently do not have an approved compliance test method for determining VOC content under South Coast AQMD rules. When VOC content must be included on product labels pursuant to Rule 443.1, manufacturers may use formulation data or estimate the VOC emissions of the reactive components of the thin film energy curable

coatings using ASTM D7767 ─ Standard Test Method to Measure Volatiles from Radiation Curable Acrylate Monomers, Oligomers, and Blends and Thin Coatings Made from Them. ASTM D7767 is not a U.S. EPA approved test method and as such is not an appropriate compliance test method that a third-party laboratory, or the South Coast AQMD Laboratory, could rely on to verify the VOC content of a thin-film energy curable coating. For determining compliance with VOC limits for thin-film energy curable coatings, manufacturers may rely on formulation data and ASTM D7767 to determine product VOC content for labeling purposes.

Comment Letter #6

Hello Mojtaba-

Thank you for the recent work on Rubber Vulcanization adhesives with us. A couple additional thoughts/requests based on the presentation:

- 55-gallon exemption - Since there are so many custom formulations and tail products, we could get some major volumes converted over to aqueous adhesives over the next couple years, but there will always be smaller volumes of specialty chemistries that linger. I would request that, once the lower VOC limit goes into effect, we re-implement the 55-gallon exemption for the smaller volumes (this exemption was removed for Rubber Vulcanization Adhesives around 2017).
- Template of customer notification for compliance - As part of our due diligence, we are improving our customer communications to include an annual notice about compliance with Rule 1168 and making sure our products are being used in a compliant manner. Can you recommend some language for us to refer them to report correctly? I have to be careful that I am not claiming to be their legal or compliance resource, but I do want to advise correctly as to what **their** responsibilities are in reporting.

Thanks again, and if it would help to have another Zoom call, just let me know.

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Staff Response to Comment Letter #6

Response to Comment 6-1:

Staff appreciates the comment; however, staff does not recommend reinstating the 55-gallon exemption for the rubber vulcanization adhesive category once the lower VOC limit becomes effective. Rubber vulcanization category was afforded a higher VOC limit and additional time to address potential reformulation challenges in meeting the future-effective lower VOC limit. As a result, the 55-gallon exemption was updated in previous rule amendments to exclude the rubber vulcanization adhesive category. Sunsetting the 55-gallon exemption is to close a loophole that allows the sale of non-compliant high-VOC materials into the South Coast AQMD. In the past, many manufacturers claimed this exemption when reporting sales of high-VOC materials in their QERs. Facilities who use the exemption are supposed to report the use of the exemption to the South Coast AQMD and no reports have been received. Sunsetting the exemption will close this potential loophole.

Since there are a few low-volume products that are used as part of the rubber vulcanization system which may encounter potential challenges, staff is providing an alternative PW-MIR VOC limit and extends the 55-gallon exemption sunset from January 1, 2028 to January 1, 2029 to help address reformulation challenges for primers used with rubber vulcanization adhesives.

Staff recommends that the manufacturer remain in contact with staff and provide periodic updates on the reformulation progress, so any potential concerns can be addressed in a timely manner at a future date.

Response to Comment 6-2:

Staff appreciates the comment and your efforts to improve communication with your customers regarding Rule 1168. Staff understands that a manufacturer or private labeler may have varying processes and procedures in place to communicate with customers and tries not to be prescriptive as to how the communication should be structured. As a result, South Coast AQMD does not provide template language or prescribe how companies should convey regulatory requirements to their customers. Compliance obligations vary depending on each entity's role in the supply chain, the role for a manufacturer is different from that of a distributor. It is typically the responsibility of each business to determine the best pathway to communicate those obligations. For facilities using the 55-gallon exemption, a reminder from the manufacturer or distributor that the end user must report their usage to South Coast AQMD can help reinforce this requirement and also make clear that the exemption is being utilized. Such notification may also help ensure that the manufacturer or distributor is not implicated if a violation is issued.

Staff recommends directing customers to the applicable requirements in Rule 1168, so they can review and understand their responsibilities. Staff revised definitions and added a flowchart in chapter 3 to help delineate between reporting responsible parties. If additional information or clarification is needed, staff is always willing to meet or discuss.