BOARD MEETING DATE: December 4, 2026 AGENDA NO. 23

PROPOSAL: Certify Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications, Amend Rule 1168; and Submit for Inclusion Into State Implementation Plan

SYNOPSIS: Rule 1168 establishes VOC limits for adhesives and sealants. The California Office of Environmental Health Hazard Assessment has determined that para-Chlorobenzotrifluoride (pCBtF) and tert-Butyl Acetate (t-BAc), which are used in certain adhesives and sealants, have carcinogenic health effects. This amendment is the result of the technology check-in included in the 2022 Rule 1168 amendment to evaluate progress on the pCBtF and t-BAc phase out. Proposed amendments to Rule 1168 provide additional time for manufacturers to reformulate certain adhesive and sealant categories to phase out of pCBtF. The amendments also clarify and update reporting and recordkeeping requirements for manufacturers and distributors, and sunset the existing 55-gallon exemption that allows the use of high VOC products.

COMMITTEE: Stationary Source, October 16, 2026, Reviewed

RECOMMENDED ACTIONS:
Adopt the Attached Resolution:
1. Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications;
2. Amending Rule 1168 – Adhesive and Sealant Applications; and
3. Directing staff to submit Proposed Amended Rule 1168 – Adhesive and Sealant Applications, to CARB and U.S. EPA for inclusion into the State Implementation Plan.

Wayne Nastri
Executive Officer

SR:MK:HF:SK:MM

Background

Rule 1168 – Adhesive and Sealant Applications (Rule 1168), was adopted in April 1989 to reduce VOC emissions from adhesive and sealant applications. The rule applies to products used during manufacturing at stationary sources, as well as products used by consumers that are not regulated by CARB's Consumer Products Regulation. Rule 1168 has been amended 15 times and currently establishes VOC limits for 69 categories of adhesives, adhesive primers, sealants, and sealant primers.

The most recent amendment to Rule 1168 was adopted in November 2022 and included a phase-out schedule for pCBtF and t-BAc due to toxicity concerns identified by the Office of Environmental Health Hazard Assessment. During the 2022 rule development, the Board directed staff to conduct a technology check-in to evaluate progress of the phase out of these toxic compounds. The technology check-in included individual meetings with manufacturers and trade groups and a public meeting to determine if the non-pCBtF and t-BAc coatings had successfully been introduced into the market. Manufacturers indicated most reformulation efforts were successful, but additional reformulation time was needed for roof adhesive primers and battery adhesives to transition away from pCBtF. During the rule development, the following three categories were identified that need additional time to reformulate and comply with lower future-effective VOC limits: (1) top and trim adhesives, (2) rubber vulcanization adhesives, and (3) clear, paintable, and immediately water-resistant sealants.

Proposed Amendments

Proposed Amended Rule 1168 (PAR 1168) provides a two-to-three-year delay for the pCBtF prohibition timeline for roof adhesive primers and battery adhesives and a two-to-three year delay for the future-effective lower VOC limit for top and trim adhesives, rubber vulcanization adhesives, and clear, paintable, and immediately water-resistant sealants to address reformulation and technical feasibility challenges. The time extensions are based on manufacturer feedback and reflect the specific reformulation challenges for each category. The proposed timeline extension dates or future VOC limit reduction dates are:

- Roof adhesive primers pCBtF phase out, January 1, 2030
- Battery Adhesive pCBtF phase out, January 1, 2029
- 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

PAR 1168 includes a few alternative, equivalent product weighted-maximum incremental reactivity (PW-MIR) VOC limits for categories where there are no non-pCBtF based formulations. Adhesives primers are low-solids materials that currently meet the VOC limits with a high percent of pCBtF. Staff did not identify any feasible alternatives to lower VOC levels without the use of pCBtF other than potentially

reformulating based on MIR. PW-MIR VOC limits are also being provided for top and trim adhesives. The lower VOC limit for top and trim adhesives was established in 2007, and manufacturers' reformulation efforts to meet the lower VOC limit have not been successful. The manufacturers subject to the future-effective lower VOC limit are currently in the process reformulating new compliant products, but during the testing phase, have encountered challenges in meeting the performance requirements and specifications for certain applications, thus additional time is needed to comply with the lower VOC limits. The alternative PW-MIR VOC limits are provided to allow formulation flexibility without increasing the ozone forming potential of the products.

The proposal also establishes prohibition timelines for dimethyl carbonate (DMC) and cyclic, branched, or linear completely methylated siloxanes (VMS) due to toxicity and environmental concerns. DMC and VMS have limited use in products regulated by Rule 1168; the intent is to prohibit these compounds before they become widely adopted as substitutes for pCBtF or other solvents to avoid future reformulation cycles driven by toxicity concerns.

PAR 1168 also includes a future date to remove an exemption allowing facilities to use up to 55 gallons per year of non-compliant products, adds reporting and recordkeeping provisions to improve enforceability of distributor-related requirements, requires manufacturers and private labelers to provide distributor information, and transitions distributor reporting requirements to recordkeeping requirements. In addition, PAR 1168 includes new and revised definitions, updates cross-references, clarifies applicability and reporting provisions, and makes other administrative revisions to improve clarity, enforceability, and consistency with other South Coast AQMD rules. The proposed amendments are expected to delay approximately 0.15 tons per day of VOC emission reductions due to technology and reformulation challenges, while also delaying the reduction in use of pCBtF in roof adhesive primers and battery adhesives.

Public Process

PAR 1168 was developed through a public process. Staff held one technology check-in meeting and two Working Group Meetings and one Public Workshop during the rule development. In addition, staff met with individual stakeholders subject to this rule.

Emission Reductions

PAR 1168 affects a broad range of manufacturing and consumer product sectors. Baseline VOC emissions are approximately 9 tons per day, and the proposed amendments will delay approximately 0.15 tons per day of future VOC emission reductions.

Key Issues

Throughout the rulemaking process, staff worked with stakeholders to resolve key issues including delaying certain effective dates for lower VOC limits, reducing the

frequency of certain reporting requirements, and including energy curable products in the definition of reactive products. Staff is not aware of any remaining key issues.

California Environmental Quality Act (CEQA)
Pursuant to South Coast AQMD's Certified Regulatory Program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l), and South Coast AQMD Rule 110) and CEQA Guidelines Section 15187, the South Coast AQMD has prepared a Subsequent Environmental Assessment (SEA) for PAR 1168, which is a substitute CEQA document pursuant to CEQA Guidelines Section 15252, prepared in lieu of a Subsequent Environmental Impact Report. The environmental analysis in the SEA tiers off of two previously certified CEQA documents prepared for the amendments to Rule 1168 that were adopted on October 6, 2017 and November 4, 2022 as allowed by CEQA Guidelines Sections 15152, 15162, and 15385. Implementation of the proposed project is expected to result in delayed VOC emission reductions of up to 0.15 ton per day until January 1, 2030. The Final SEA concluded that PAR 1168 would generate significant adverse environmental impacts for the topic of air quality during operation and no feasible mitigation measures were identified that would reduce these impacts to less than significant levels. The Final SEA is included as an attachment to this Board package (see Attachment I). In addition, Findings pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 were also prepared (see Attachment F of this Board package, which is referred to as Attachment 1 to the Resolution).

Socioeconomic Impact Assessment
The alternative PW-MIR VOC limits and extended timelines for phasing out pCBtF and meeting future-effective VOC limits for some categories are expected to result in an overall cost savings and lower reformulation costs because manufacturers will have more time and flexibility to reformulate affected products. In addition, the phase out of DMC and VMS is anticipated to result in minimal to no compliance costs due to their limited use in a small subset of battery-related products and the current availability of alternative compliant formulations without DMC at equivalent prices.

AQMP and Legal Mandates
PAR 1168 is the result of the November 2022 Governing Board directive to conduct a technology check-in to assess progress on phasing out pCBtF and t-BAc, which resulted in the rule amendment.

Implementation and Resource Impacts
Existing staff resources are adequate to implement the proposed amendments.

Attachments

A. Summary of Proposals
B. Key Issues and Responses
C. Rule Development Process
D. Key Contacts
E. Resolution
F. Attachment 1 to the Resolution – Findings and Statement of Overriding Considerations
G. Proposed Amended Rule 1168
H. Final Staff Report, with Final Socioeconomic Impact Assessment Included
I. Final Subsequent Environmental Assessment
J. Board Presentation

ATTACHMENT A

SUMMARY OF PROPOSALS

Proposed Amended Rule 1168 – Adhesive and Sealant Applications
Subdivision (c) – Definitions • Added the following definitions: o Battery Adhesive o Chemical Abstracts Service Registration Number (CAS RN) o Distributor o Executive Officer o Manufacturer o Maximum Incremental Reactivity (MIR) o Product-Weighted MIR (PW-MIR) o Retail Outlet o South Coast AQMD Test Method • Revised definitions to improve clarity and consistency including: o Big-box retailer o Building envelope membrane adhesives o Clear, paintable, and immediate water-resistant sealant o Cove base adhesive o Edge glue adhesive o Hand application methods o High-pressure two component foam sealant o High-volume low-pressure (HVLP) spray o Hot applied modified bitumen/built up roof adhesive o Percent VOC by weight o Private labeler o Potable water sealant o Quantity and Emission Reports (QERs) o Rubber floor adhesive o Special purpose contact adhesive o Toll manufacturer o Toxic air contaminant o Vinyl composition tile (VCT) • Replaced the definition of Distribution Center with Distributor, for consistency with other South Coast AQMD rules and to refer to midstream distributors rather than retailers that sell directly to end-users and the Regulatory and

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

Subdivision (d) – Requirements

- Updated Table 1 – Regulated Product Categories and VOC Content Limits to reflect VOC limits that became effective January 1, 2023 and removed archaic language.
- Extended future-effective dates for VOC limit reductions for three categories to allow additional time for reformulation:
    - Top and Trim Adhesive: 250 grams per liter (g/L), effective January 1, 2030
    - Rubber Vulcanization Adhesive: 250 g/L, effective January 1, 2029
    - Clear, Paintable, and Immediately Water-Resistant Sealant: 250 g/L, effective January 1, 2029
- Added a new Battery Adhesive category with a VOC limit of 120 g/L, more stringent than the 250 g/L limit that previously applied under the All Other Adhesives category.
- Established alternative reactivity-based PW-MIR limits, in grams of ozone per gram of product (g O3/g product), to allow reformulation flexibility while ensuring that ozone formation potential is not increased for the following categories:
    - All Other Adhesive Primer: 0.65 g O3/g product
    - Roof Adhesive Primer: 0.65 g O3/g product
    - Top and Trim Adhesive: 0.60 g O3/g product
- Established the October 2, 2010 MIR values as the default values for calculating PW-MIR. If CARB updates the MIR values, Manufacturers may continue to use the 2010 values for up to three years from the publication date of the updated values.

Subdivision (e) – Reporting and Recordkeeping Requirements

- Clarified that Manufacturers and Private Labelers must report the total annual quantity of each product sold and distributed for use into or within South Coast AQMD, including products sold to Retail Outlets, Distributors, and through Big Box Retailers.
- Removed the QER requirement for Distributors. QER submittals now apply only to Manufacturers, Private Labelers, and Big Box Retailers; there is no change to the existing QER reporting dates.

- Added a requirement for Manufacturers and Private Labelers to submit a list of their Distributors by September 1, 2027, and to submit an updated list by September 1 of any year in which the list changes.
- Added a requirement for Manufacturers and Private Labelers to submit copies of written notifications provided to Distributors stating that a product is not to be used in South Coast AQMD by September 1, 2027, with new or updated notifications due by September 1st of each year.
- Added a requirement for Distributors that sell Regulated Products into or within South Coast AQMD to maintain records of all annual sales for five years and make them available to the Executive Officer upon request. The recordkeeping is in lieu of the previously required reporting.
- Added a provision allowing Regulated Products with two or more Manufacturers to designate in writing the Manufacturer responsible for reporting; the written agreement must be submitted to the Executive Officer by September 1, 2027, and updated if it changes.
- Established that the reporting requirement for Facilities using the 55-gallon exemption applies through calendar year 2028, with the final report due no later than September 1, 2029.

Subdivision (f) – Test Methods

- Streamlined test method references for consistency with recently adopted South Coast AQMD VOC rule amendments; no substantive changes to test methods.

Subdivision (g) – Administrative Requirements

- Established labeling requirements for Regulated Products that elect to comply with the alternative PW-MIR limits.

Subdivision (h) – Prohibition of Sales and Use

- Extended the pCBtF prohibition for Roof Adhesive Primers to allow additional time for reformulation:
    - Final manufacture date delayed from January 1, 2027 to January 1, 2030
    - Sell-through date delayed from January 1, 2028 to January 1, 2031
    - Use-through date delayed from January 1, 2028 to January 1, 2032
- Added Battery Adhesives to the prohibition timeline to allow additional time for testing and certification of pCBtF-free materials:
    - Final manufacture date of January 1, 2029
    - Sell-through date of January 1, 2030

  - Use-through date of January 1, 2031
- Added new provisions to prohibit the use, supply, sale, offer for sale, distribution, packaging, repackaging, or possession of Regulated Products containing more than:
  - 0.01 percent by weight dimethyl carbonate (DMC)
  - 1.0 percent by weight volatile methyl siloxanes (VMS)
  - These prohibitions apply to products manufactured after January 1, 2028, with a sell-through date of January 1, 2029 and a use-through date of January 1, 2030.

Subdivision (j) – Exemptions

- Sunset the exemption that allows Facilities to use up to 55 gallons per year of non-compliant products, effective January 1, 2029. The exemption was moved to a separate paragraph and continues to exclude adhesives used in architectural applications, contact adhesives, special purpose contact adhesives, adhesives used on porous substrates, rubber vulcanization adhesives, and top and trim adhesives.
- Revised the independent distributor exemption to require Manufacturers and Private Labelers using the exemption to submit copies of their written notifications to Distributors to the Executive Officer.

ATTACHMENT B

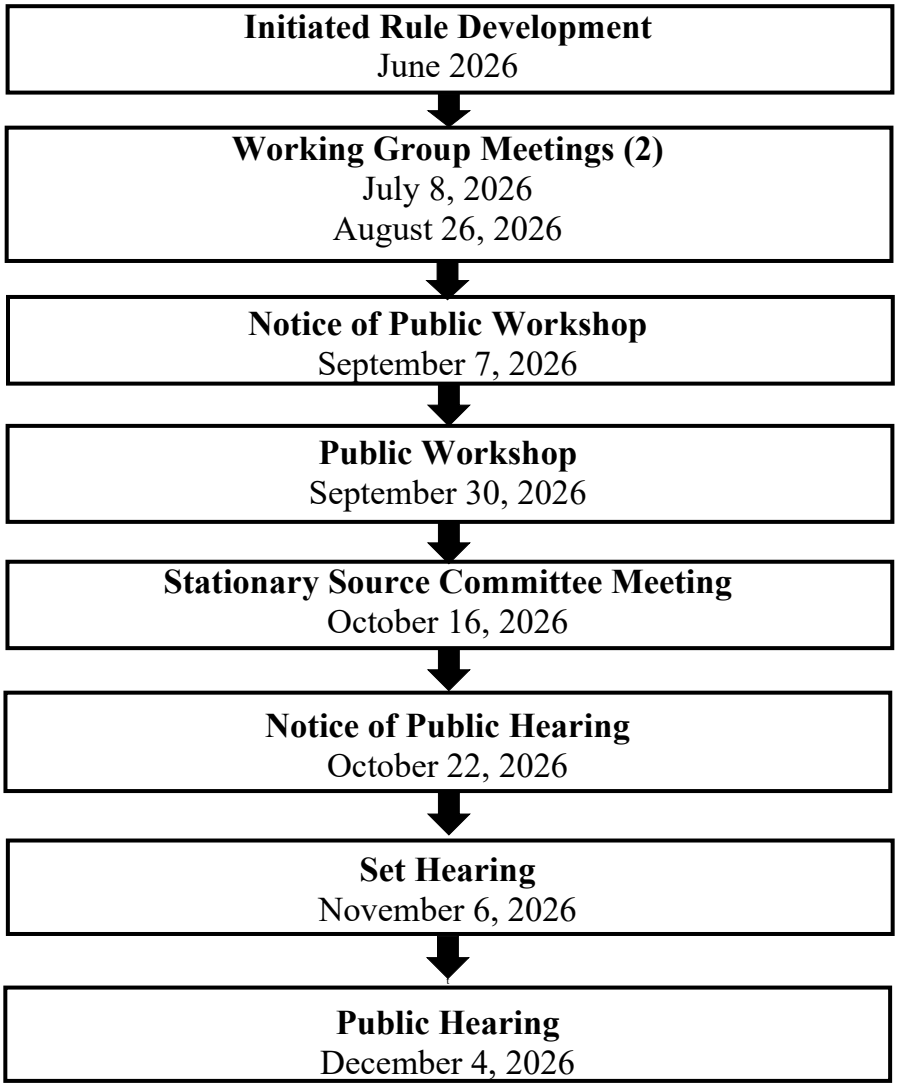
KEY ISSUES AND RESPONSES

Proposed Amended Rule 1168 – Adhesive and Sealant Applications
Staff has worked with stakeholders throughout the rule amendment process and are not aware of any remaining key issues.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1168 – Adhesive and Sealant Applications



Six (6) months spent in rule development
One (1) Public Workshop
One (1) Stationary Source Committee Meeting
Two (2) Working Group Meetings
Eight (8) Stakeholder Meetings

ATTACHMENT D
KEY CONTACTS LIST

Proposed Amended Rule 1168 – Adhesive and Sealant Applications

Adhesive and Sealant Council (ASC)

American Coatings Association (ACA)

Carlisle Construction Materials

Concorde Battery Corporation

DAP Products Inc.

EPDM Roofing Association (ERA)

Johns Manville

LORD Corporation

Parker Lord

RadTech International

RD Abbott

Roof Coatings Manufacturers Association (RCMA)

Sashco Inc.

Single Ply Roofing Industry (SPRI)

ATTACHMENT E

RESOLUTION NO. 26-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications.

A Resolution of the South Coast AQMD Governing Board amending Rule 1168 – Adhesive and Sealant Applications.

A Resolution of the South Coast AQMD Governing Board directing staff to submit Proposed Amended Rule 1168 – Adhesive and Sealant Applications, for inclusion into the State Implementation Plan.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1168 is considered a "project" as defined by California Environmental Quality Act (CEQA); and

WHEREAS, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of the proposed project pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board has determined that the requirements for a Subsequent Environmental Impact Report have been triggered pursuant to its certified regulatory program and CEQA Guidelines Section 15162(a), and that a Subsequent Environmental Assessment (SEA), a substitute document allowed pursuant to CEQA Guidelines Section 15252 and South Coast AQMD's certified regulatory program, is appropriate; and

WHEREAS, the South Coast AQMD has prepared a SEA pursuant to its certified regulatory program and CEQA Guidelines Section 15187, which tiers off of the Final Environmental Assessment (EA) for Proposed Amended Rule 1168 – Adhesive and Sealant Applications, which was certified on October 6, 2017 (referred to as October 2017 Final EA for Rule 1168) and the Final SEA for Proposed Amended Rule 1168 – Adhesive and Sealant Applications, which was certified on November 4, 2022 (referred to as November 2022 Final SEA for Rule 1168) as allowed by CEQA Guidelines Sections 15152, 15162, and 15385. Because the SEA is a subsequent document to the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, the baseline is the project analyzed in the October 2017 Final EA for Rule 1168. The SEA concluded that the proposed project would have the potential to generate significant and unavoidable adverse environmental impacts for the topic of air quality during operation; and

WHEREAS, the Draft SEA was circulated for a 46-day public review and comment period, from September 18, 2026 to November 3, 2026, and no comment letters were received; and

WHEREAS, the Draft SEA has been revised to include updates to reflect changes made to Proposed Amended Rule 1168 after the public notice of availability of the Draft SEA, so that it is now a Final SEA; and

WHEREAS, it is necessary that the South Coast AQMD Governing Board review the Final SEA prior to its certification, to determine that it provides adequate information on the potential adverse environmental impacts that may occur as a result of amending Rule 1168; and

WHEREAS, no feasible mitigation measures were identified that would reduce or eliminate the significant adverse operational air quality impacts to less than significant levels and, as such, a Mitigation Monitoring Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 is not required and was not prepared; and

WHEREAS, it is necessary that the South Coast AQMD prepare Findings pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, regarding potentially significant adverse operational air quality impacts that cannot be mitigated to less than significant levels; and

WHEREAS, Findings and a Statement of Overriding Considerations have been prepared and are included in Attachment F in the Board letter, which is attached and incorporated herein by reference; and

WHEREAS, the South Coast AQMD Governing Board voting to amend Rule 1168 has reviewed and considered the information contained in the Final SEA, the Findings, the Statement of Overriding Considerations, and all other supporting documentation, prior to its certification, and has determined that the Final SEA has been completed in compliance with CEQA; and

WHEREAS, Proposed Amended Rule 1168 and supporting documentation, including but not limited to, the Final SEA, and the Final Staff Report which includes the Socioeconomic Impact Assessment were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the Final SEA reflects the independent judgment of the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that all changes made in the Final SEA after the public notice of availability of the Draft SEA were not substantial revisions and do not constitute significant new information within the meaning of CEQA Guidelines Sections 15073.5 and 15088.5, because no new or substantially increased significant effects were identified, and no new project conditions or mitigation measures were added, and all changes merely clarify, amplify, or make insignificant modifications to the Draft SEA, and recirculation is therefore not required; and

WHEREAS, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (Section 30.5(4)(D)(i) of the Administrative Code), that the modifications to Proposed Amended Rule 1168 since the Notice of Public Hearing was published are clarifications that meet the same air quality objective and are not so substantial as to significantly affect the meaning of Proposed Amended Rule 1168 within the meaning of Health and Safety Code Section 40726 because the changes to the reporting requirement in subparagraph (e)(8) is clarify the intent; and: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rule, (c) the changes are consistent with the information contained in the Notice of Public Hearing, and (d) the effects of Proposed Amended Rule 1168 do not exceed the effects of the range of CEQA alternatives analyzed in the Final SEA; and

WHEREAS, Proposed Amended Rule 1168 will be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the South Coast AQMD Governing Board determines that there is a problem that Proposed Amended Rule 1168 will alleviate by providing additional time to phase out of para-Chlorobenzotriflouride (pCBtF) for two categories of regulated products and delaying future-effective lower VOC limits for several categories of regulated products; and

WHEREAS, 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, non-duplication, and reference based on relevant information presented at the Public Hearing and in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that a need exists to amend Rule 1168 to provide additional time for two categories of regulated products to phase out of pCBtF and delaying future-effective lower VOC limits for several categories of regulated products; and

WHEREAS, 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, 40441, 40702, and 40725 through 40728; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1168 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1168 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decision, or state or federal regulations; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1168 does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in amending Rule 1168, references the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40001, 40702, 40440(a), 40725 through 40728.5, and federal Clean Air Act Sections 110, 172, and 182(e); and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and that the South Coast AQMD's comparative analysis of Proposed Amended Rule 1168 is included in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1168, is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule amendment; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1168, is consistent with the provisions of Health and Safety Code Sections 40440.8 and 40728.5; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1168 neither includes new Best Available Retrofit Control Technology requirements nor new feasible measures pursuant to Health and Safety Code Section 40914; therefore, the requirements to conduct the analysis of cost-effectiveness and incremental cost-effectiveness as set forth in the Health and Safety Code Section 40920.6 are not applicable; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1168 will result in overall cost savings over time to the affected

industries, as specified in the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1168; and

WHEREAS, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1168, and has made a good faith effort to minimize any adverse socioeconomic impacts; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1168 on September 30, 2026; and

WHEREAS, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all provisions of state and federal law; and

WHEREAS, the South Coast AQMD Governing Board specifies the Planning, Rule Development, and Implementation Manager overseeing the rule development for Proposed Amended Rule 1168 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed project is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED that the South Coast AQMD Governing Board has considered the Final SEA for Proposed Amended Rule 1168 and, on the basis of the whole record before it, the South Coast AQMD Governing Board: 1) finds that the Final SEA was completed in compliance with CEQA and the South Coast AQMD's certified regulatory program, 2) finds that the Final SEA and all supporting documents were presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on Proposed Amended Rule 1168, and 3) certifies the Final SEA; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt Findings pursuant to CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, as required by CEQA and which are included as Attachment F and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1168 as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board requests that Proposed Amended Rule 1168 be submitted for inclusion in the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to forward a copy of this Resolution and Proposed Amended Rule 1168 to the California Air Resources Board for approval and subsequent submittal to the United States Environmental Protection Agency for inclusion into the State Implementation Plan.

_____ _____

Date: Faye Thomas, Clerk of the Board

ATTACHMENT F

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Attachment 1 to the Governing Board Resolution for:

Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 - Adhesive and Sealant Applications

Findings and Statement of Overriding Considerations

November 2026

State Clearinghouse No. 2017081031
South Coast AQMD No. 20260918ST/ 20220902ST/ 08162017DT

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Cities of Orange County

CEDRIC JAMIE RUTLAND, MD, FCCP
Governor's Appointee

EXECUTIVE OFFICER:

WAYNE NASTRI

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Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 - Adhesives and Sealant Applications

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Findings and Statement of Overriding Considerations

Introduction

California Environmental Quality Act Provisions Regarding Findings

Summary of the Proposed Project

Potentially Significant Adverse Impacts That Cannot Be Reduced Below A Significant Level

Findings Regarding Potentially Significant Environmental Impacts

- **Findings for Alternatives to the Proposed Project**
- **Conclusion of Findings**

Statement of Overriding Considerations

Mitigation

Record of Proceedings

1.0 INTRODUCTION

Proposed Amended Rule (PAR) 1168 – Adhesive and Sealant Applications, is considered a "project" as defined by the California Environmental Quality Act (CEQA). [Public Resources Code Section 21000 et seq.]. Specifically, CEQA requires: 1) the potential adverse environmental impacts of proposed project to be evaluated; and 2) feasible methods to reduce or avoid any identified significant adverse environmental impacts of this project to also be evaluated. Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364 define "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

Since the proposed project is comprised of a South Coast AQMD-proposed amended rule, the South Coast AQMD has the greatest responsibility for carrying out or approving the project as a whole, which may have a significant effect upon the environment, and is the most appropriate public agency to act as lead agency. [Public Resources Code Section 21067 and CEQA Guidelines Section 15051(b)].[1]

The proposed project amends the November 2022 version of Rule 1168 and proposes to: 1) extend the parachlorobenzotriflouride (pCBtF) prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

The South Coast AQMD, as Lead Agency for the proposed project, prepared a Subsequent Environmental Assessment (SEA) with significant impacts to conduct an environmental review of PAR 1168 pursuant to CEQA Guidelines Section 15187. The SEA is a substitute CEQA document prepared in lieu of a Subsequent Environmental Impact Report (EIR) with significant impacts [CEQA Guidelines Section 15162], pursuant to the South Coast AQMD's Certified Regulatory Program [Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l); codified in South Coast AQMD Rule 110]. Pursuant to CEQA Guidelines Sections 15152, 15162, and 15385, the SEA tiers off of and is a subsequent document to the Final EA for Rule 1168 which was certified on October 6, 2017 (referred to herein as the October 2017 Final EA for Rule 1168), and the Final SEA for Rule 1168 which was certified on November 4, 2022 (referred to herein as the November 2022 Final SEA for Rule 1168).

The purpose of the October 2017 amendments to Rule 1168 was to reduce VOC emissions by 1.38 ton per day (tpd), as well as reduce toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The October 2017 Final EA for the October 2017 amendments to Rule 1168 analyzed the environmental impacts

[1] CEQA Guidelines refers to California Code of Regulations, Title 14, Section 15000 and following.

associated with the activities manufacturers were anticipated to undertake to reformulate products and that these reformulation activities could create secondary adverse environmental impacts. However, none of the environmental topic areas previously analyzed in the October 2017 Final EA for Rule 1168 were concluded to have significant and unavoidable impacts, including the topic of air quality and greenhouse gases (GHGs). Because the October 2017 Final EA for Rule 1168 concluded that the project will not have a significant adverse impact on the environment, mitigation measures were not made a condition of the approval of the October 2017 version of Rule 1168. Thus, a Mitigation Monitoring and Reporting Plan, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, was not required or adopted at that time. Findings pursuant to CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 were also not required or adopted for the October 2017 version of Rule 1168.

The October 2017 amendments to Rule 1168 also included a commitment to conduct a technology assessment for top and trim adhesives, roofing products, plastic welding cements, and foam sealants to determine if products for nine adhesive and sealant categories were available that could achieve the VOC limits by January 1, 2023. Accordingly, the technology assessment was conducted in 2022 and concluded that some of these product categories either needed more time beyond January 1, 2023 to meet the VOC limits or that achieving the lower VOC limits would not be technically feasible.

In addition, due to potential toxicity concerns associated with tertiary-Butyl Acetate (t-BAc) and pCBtF and the uncertainty of on-site exposure modeling methodologies, the Stationary Source Committee of the South Coast AQMD Governing Board recommended a precautionary approach such that compounds with a known or suspected toxic endpoint will not be exempted from the definition of VOC in Rule 102 or other South Coast AQMD Rules. In 2017, t-BAc was identified as a carcinogen after it had been previously granted a partial exemption from the definition of a VOC in certain uses in several source specific rules, e.g., Rule 1113 – Architectural Coatings, and Rule 1151 – Automotive Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations, but not Rule 1168. Further, in 2020, pCBtF was identified as a stronger carcinogen than t-BAc after it had been previously exempted from the definition of a VOC in Rule 102 for all uses within the South Coast AQMD, including adhesives and sealants that would otherwise be subject to Rule 1168 requirements.

Based on the results of the 2022 technology assessment and the recommendation of the Stationary Source Committee of the South Coast AQMD Governing Board, Rule 1168 was amended in November 2022 which: 1) prohibited the use of pCBtF and t-BAc due to toxicity concerns; 2) either delayed the effective dates of VOC emission limits or maintained the existing VOC emission limits for certain categories of adhesives and sealants; 3) created additional subcategories of Regulated Products to better characterize and refine VOC emission limits; 4) allowed Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) to qualify as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) removed definitions and updated, clarified, and streamlined rule language. The environmental impacts associated with the November 2022 version of Rule 1168 were analyzed in the November 2022 Final SEA for Rule 1168. The types of activities and associated environmental impacts associated with implementing the VOC limits and compliance

dates subject to the October 2017 Rule 1168 amendments were compared to the November 2022 version of Rule 1168; the November 2022 Final SEA for Rule 1168 concluded that the type and extent of the anticipated physical changes would be similar and would cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the October 2017 Final EA for Rule 1168 except for the topic of air quality and GHG emissions. Specifically, the November 2022 Final SEA for Rule 1168 concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts due to delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term. Because the November 2022 Final SEA for Rule 1168 concluded that the project will have significant and unavoidable adverse impacts on the environment, pursuant to CEQA Guidelines 15252(a)(2)(A), the November 2022 Final SEA included an alternatives analysis for the November 2022 version of Rule 1168. However, no feasible mitigation measures were identified that would reduce or eliminate the significant adverse impacts for the air quality during operation. Thus, mitigation measures were not made a condition of the approval of the November 2022 version of Rule 1168 and were not adopted. Further, since mitigation measures were not adopted for the project, a Mitigation, Monitoring, and Reporting Plan, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was neither required nor adopted at that time. However, Findings were made pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 was adopted for the November 2022 version of Rule 1168.

Because this is a subsequent document, the baseline is the project analyzed in the October 2017 Final EA for Rule 1168. The SEA was prepared because PAR 1168 contains new information of substantial importance which was not known and could not have been known at the time the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 were certified and the project will have significant effects that were not previously discussed. [CEQA Guidelines Section 15162(a)(3)(A)].

The SEA, which includes a project description and analysis of potential adverse environmental impacts that could be generated from PAR 1168, concluded to have generally the same or similar environmental effects that were previously examined in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 but that the operational air quality impacts from PAR 1168 will cause some additional delayed VOC emission reductions, which will result in further delays in achieving the full amount of VOC emission reductions anticipated as part of the October 2017 version of PAR 1168 and that will be more severe than the delayed VOC emission reductions as a result of the November 2022 version of Rule 1168. Specifically, the Final SEA for PAR 1168 concluded that significant and unavoidable adverse environmental impacts may occur for air quality during operation because the delayed VOC emission reductions would exceed the South Coast AQMD's daily VOC operational significance threshold of 55 pounds per day. Therefore, pursuant to CEQA Guidelines Section 15252(a)(2)(A), an alternatives analysis was required and has been included in the Final SEA. However, no feasible mitigation measures were identified that would reduce or eliminate the significant adverse impacts for the air quality during operation. Thus, mitigation measures were not made a condition of approval of PAR 1168. Further, since no feasible mitigation measures were identified, a Mitigation, Monitoring, and Reporting

Plan, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 is not required.

The Draft SEA was released and circulated for a 46-day public review and comment period from September 18, 2026 to November 3, 2026 and no comment letters were received.

However, some modifications have been made to the Draft SEA to make it a Final SEA which include updates to reflect changes made to PAR 1168 after the public notice of availability of the Draft SEA. South Coast AQMD staff evaluated the modifications made to PAR 1168 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the project and was considerably different from others previously analyzed; and 4) the Draft SEA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 1168 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA. The Final SEA will be presented to the Governing Board prior to its December 4, 2026 public hearing (see Attachment I of the Governing Board package).

South Coast AQMD's certified regulatory program does not impose any greater requirements for making written findings for significant environmental effects than is required for an EIR under CEQA. When considering for approval a proposed project that has one or more significant adverse environmental effects, a public agency must make one or more written findings for each significant adverse effect, accompanied by a brief rationale for each finding. [Public Resources Code Section 21081 and CEQA Guidelines Sections 15065 and 15091]. The analysis in the Final SEA concluded that PAR 1168 has the potential to generate significant adverse air quality impacts during operation which are more severe than what was previously analyzed in the October 2017 EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 for air quality during operation. In addition, extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives under PAR 1168 would delay the toxicity-related benefits associated with the requirement to phaseout pCBtF that was adopted in the November 2022 version of Rule 1168.

For a proposed project with significant adverse environmental impacts, CEQA requires the lead agency to balance the economic, legal, social, technological, or other benefits of a proposed project against its significant unavoidable environmental impacts when determining whether to approve the proposed project. Under CEQA Guidelines Section 15093(a), "If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable significant adverse environmental effects, the adverse environmental effects may be considered "acceptable." Thus, after adopting findings, the lead agency must also adopt a "Statement of Overriding Considerations" to approve a proposed project with significant adverse environmental effects.

2.0 CEQA PROVISIONS REGARDING FINDINGS

CEQA generally requires agencies to make certain written findings before approving a proposed project with significant environmental impacts. South Coast AQMD is exempt from some of CEQA's requirements pursuant to its Certified Regulatory Program, but complies with its provisions where required or otherwise appropriate.

Relative to making Findings, CEQA Guidelines Section 15091 provides:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

(b) The findings required by subsection (a) shall be supported by substantial evidence in the record.

(c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subsection (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.

(d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.

(e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.

(f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

The "changes or alterations" referred to in CEQA Guidelines Section 15091(a)(1) may include a wide variety of measures or actions as set forth in CEQA Guidelines Section 15370, including:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

(c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

(e) Compensating for the impact by replacing or providing substitute resources or environments.

3.0 SUMMARY OF THE PROPOSED PROJECT

Rule 1168 was adopted in April 1989 to reduce VOC emissions from adhesive and sealant applications. Rule 1168 contains VOC limits for 69 categories of adhesives, adhesive primers, sealants, and sealant primers, and 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). Rule 1168 has been amended 15 times with the last two amendments in October 2017 and November 2022. The purpose of the October 2017 amendments to Rule 1168 was to primarily reduce VOC emissions by 1.38 tpd but also reduce emissions from toxic air contaminants and stratospheric ozone-depleting compounds in formulations of adhesives, adhesive primers, sealants, and sealant primers.

Rule 1168 was amended on November 4, 2022 to: 1) prohibit the use of pCBtF and t-BAc due to toxicity concerns; 2) delay the effective dates of VOC emission limits or maintain the existing VOC emission limits for certain categories of adhesives and sealants; 3) create additional subcategories of Regulated Products to better characterize and refine VOC emission limits; 4) allow Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) remove definitions and update, clarify, and streamline rule language. Implementation of the November 2022 version of Rule 1168 was expected to result in delayed and permanent foregone VOC emission reductions of 0.42 tpd and 0.28 tpd, respectively, due to extending the effective dates and maintaining the existing VOC limits for certain categories of Regulated Products, while lowering the potential for toxic chemicals to be used in adhesive and sealant products.

As part of adopting amendments to Rule 1168 on November 4, 2022, the South Coast AQMD Governing Board directed South Coast AQMD staff to report back to the Stationary Source Committee in January 2026 regarding the progress of phasing out pCBtF and t-BAc, including data reported in the Rule 1168 Quantity and Emission Reports and feedback from manufacturers of roofing adhesives and sealants. In response to this direction, South Coast AQMD staff conducted a technology assessment which concluded that manufacturers had already either phased out or are on track to phase-out pCBtF from all roofing categories except roofing adhesive primers. Thus, staff developed PAR 1168 to extend the pCBtF prohibition date for roofing adhesive primers to allow more time for reformulation. PAR 1168 also seeks to: 1) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 2) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, Roof Adhesive Primers, and All Other Adhesive Primers; 3) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 4) require manufacturers to provide a list of their distributors annually; 5) transition reporting to a recordkeeping requirement for distributors; 6) include a new category for battery adhesives with an extended pCBtF prohibition date; and 7) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

When comparing the types of activities and associated environmental impacts with implementing the VOC limits and compliance dates subject to the October 2017 and November 2022 versions of Rule 1168 that were previously analyzed in the October 2017 Final EA and November 2022 Final SEA for Rule 1168, respectively, to the currently proposed changes which comprise PAR 1168, the type and extent of the physical changes are expected to be similar and will cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168. Thus, PAR 1168 is expected to have generally the same or similar environmental effects that were previously examined in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 but that the operational air quality impacts from PAR 1168 will cause some additional delayed VOC emission reductions, which will result in further delays in achieving the full amount of VOC emission reductions anticipated as part of the October 2017 version of PAR 1168 and that will be more severe than the delayed VOC emission reductions as a result of the November 2022 version of Rule 1168. In addition, extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives under PAR 1168 would delay the toxicity-related benefits associated with the requirement to phaseout pCBtF that was adopted in the November 2022 version of Rule 1168.

4.0 POTENTIALLY SIGNIFICANT ADVERSE IMPACTS THAT CANNOT BE REDUCED BELOW A SIGNIFICANT LEVEL

The analysis in the Final SEA independently considered whether PAR 1168 would result in new significant impacts for any environmental topic areas previously evaluated in the October 2017 Final EA and November 2022 Final SEA for Rule 1168. The Final SEA for PAR 1168 identified the topic of air quality during operation as the only area in which the proposed project may cause significant and unavoidable adverse environmental impacts. No other significant adverse impacts were identified. The following discussion independently considers the currently proposed project (PAR 1168) and analyzes the incremental changes that may occur subsequent to the original

project analyzed in the October 2017 Final EA for Rule 1168 and the revised project in the November 2022 Final SEA for Rule 1168.

Air Quality Impacts During Operation

The October 2017 Final EA for Rule 1168 previously analyzed air quality and GHG impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that less than significant adverse impacts to air quality and GHG emissions would occur. Five years later, the November 2022 Final SEA for Rule 1168 evaluated air quality and GHG emissions impacts associated with the November 2022 version of Rule 1168 and concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts, because the delayed VOC emission reductions of 0.42 tpd over the short-term and the permanent VOC emission reductions foregone of 0.28 tpd over the long-term would exceed South Coast AQMD air quality significance threshold for mass daily emissions of VOCs during operation. No feasible mitigation measures were identified that would avoid or lessen these significant air quality impacts.

PAR 1168 proposes to delay the effective dates for certain categories of adhesives and sealants to comply with the applicable VOC limits established in the November 2022 version of Rule 1168, and these proposed changes are considered operational activities that are expected to generate significant air quality impacts. While the November 2022 Final SEA for Rule 1168 originally estimated that the November 2022 version of Rule 1168 would result in delayed VOC emission reductions ranging from 0.42 tpd to 0.39 tpd through January 1, 2028, PAR 1168 would extend the period of delayed VOC emission reductions beyond January 1, 2028. Implementation of PAR 1168 would delay VOC emission reductions for Clear, Paintable, Immediately Water-Resistant Sealant from January 1, 2026 to January 1, 2029; for Rubber Vulcanization Adhesive from January 1, 2028 to January 1, 2029; and for Top and Trim Adhesive from January 1, 2028 to January 1, 2030.

The analysis in the Final SEA estimated 0.146 tpd of delayed VOC emission reductions through January 1, 2029; and 0.115 tpd from January 1, 2029 through January 1, 2030. Thus, PAR 1168 would extend the period during which VOC emission reductions are delayed by approximately two years compared to the November 2022 version of Rule 1168. The extended duration of delayed VOC emission reductions that would occur as a result of PAR 1168 would create more severe operational air quality impacts than what was analyzed in the November 2022 Final SEA for Rule 1168, and the delayed VOC emission reductions that would occur as a result of PAR 1168 would exceed the South Coast AQMD air quality significance threshold for mass daily operational VOCs of 55 pounds per day. As a result, the peak daily VOC operational impacts associated with the delayed VOC emission reductions from implementing PAR 1168 are significant.

PAR 1168 also proposes to extend the pCBtF prohibition effective date, sell-through end date, and use-through end date for Roof Adhesive Primers and Battery Adhesives. As a result, the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives would be delayed. However, the

pCBtF phaseout requirement established in the November 2022 version of Rule 1168 would remain in place under PAR 1168, and the phaseout would still occur under the extended deadline. PAR 1168 would also 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 dimethyl carbonate (DMC) in concentrations greater than 0.01 percent by weight or volatile methyl siloxanes (VMS) in concentrations greater than 1.0 percent by weight, thereby providing an additional toxicity benefit.

If significant adverse environmental impacts are identified, the CEQA document shall describe feasible mitigation measures that could minimize the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures are required to reduce operational VOC impacts. CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." [Public Resources Code Section 21061.1].

However, the reason PAR 1168 is revising the effective dates of VOC emissions limits for certain categories of adhesives and sealants is because the technology assessment concluded that there are no other replacement products currently available that can feasibly attain the existing VOC limits by the effective dates established in the November 2022 version of Rule 1168. Based upon this technological limitation, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. Therefore, PAR 1168 is considered to have significant adverse unavoidable project-specific and cumulative air quality impacts during operation.

It is important to note that because the focus of PAR 1168 is on the VOC content of adhesives and sealants, emissions of other criteria pollutants that are typically associated with combustion activities (e.g., NOx, CO, SOx, PM10, and PM2.5) are not affected by PAR 1168. Thus, PAR 1168 will have no significant air quality impacts associated with NOx, CO, SOx, PM10, and PM2.5 emissions.

5.0 FINDINGS REGARDING POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACTS

Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a) provide that a public agency shall not approve or carry out a project with significant environmental effects unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. Additionally, the findings must be supported by substantial evidence in the record. [CEQA Guidelines Section 15091(b)]. Three potential findings can be made for potentially significant impacts:

> **Finding 1:** Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final SEA. [Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1)].

Finding 2: Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. [Public Resources Code Section 21081(a)(2) and CEQA Guidelines Section 15091(a)(2)].

Finding 3: Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

As identified in the Final SEA and summarized in Section 4.0 of this attachment, PAR 1168 has the potential to create significant adverse operational air quality impacts. The South Coast AQMD Governing Board, therefore, makes the following findings regarding the proposed project. The Findings are supported by substantial evidence in the record as explained in each finding. These Findings will be included in the record of project approval and will also be noted in the Notice of Decision. The Findings made by the South Coast AQMD Governing Board are based on the following significant adverse impact identified in the Final SEA for PAR 1168:

Potential delayed VOC emission reductions during operation exceed the South Coast AQMD's applicable significance air quality thresholds and cannot be mitigated to less than significant levels.

Finding and Explanation:
When comparing the types of activities and associated environmental impacts with implementing the VOC limits and compliance dates subject the October 2017 and November 2022 versions of Rule 1168 that were previously analyzed in the October 2017 Final EA and November 2022 Final SEA for Rule 1168, respectively, to the currently proposed changes, PAR 1168 is anticipated to cause some additional delayed VOC emission reductions, which will result in further delays in achieving the full amount of VOC emission reductions anticipated as part of the October 2017 version of PAR 1168 and that will be more severe than the delayed VOC emission reductions as a result of the November 2022 version of Rule 1168. The Final SEA estimated these delayed VOC emission reductions to be 0.146 tpd through January 1, 2029; and 0.115 tpd from January 1, 2029 through January 1, 2030, which would exceed the South Coast AQMD's daily VOC operational significance threshold of 55 pounds per day. In addition, extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives under PAR 1168 would delay the toxicity-related benefits associated with the requirement to phaseout pCBtF that was adopted in the November 2022 version of Rule 1168

Due to significant adverse air quality impacts during operation, feasible mitigation measures were required in the Final SEA to minimize the significant adverse impacts of the proposed project. However, the analysis in the Final SEA identified no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. Therefore, operational air quality impacts for VOC emissions are found to be significant and unavoidable.

The Governing Board finds that: 1) due to technological limitations, there are currently no other products available that can feasibly attain the existing VOC limits by the effective

dates established in the November 2022 version of Rule 1168; and 2) there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for VOC emissions to less than significant levels. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

5.1 FINDINGS FOR ALTERNATIVES TO THE PROPOSED PROJECT

A. Alternative A: No Project

Finding and Explanation:
The Final SEA analyzes a No Project Alternative, referred to as Alternative A, which consists of what would occur if the proposed project is not approved; in this case, not proposing amendments to Rule 1168. Under Alternative A, manufacturers would be required to formulate adhesives and sealants for sale and use within South Coast AQMD's jurisdiction that meet the VOC limits and toxic prohibition requirements by their corresponding effective dates established in the November 2022 version of Rule 1168. Specifically, Alternative A would require: 1) the categories of Top and Trim Adhesive, Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant to meet the VOC limits and corresponding effective dates established in the November 2022 version of Rule 1168; and 2) Roof Adhesive Primers and Battery Adhesives (currently included under All Other Adhesives) to comply with the pCBtF prohibition effective date, sell-through end date, and use-through end date established in the November 2022 version of Rule 1168.

The November 2022 Final SEA for Rule 1168 concluded that compliance with the VOC limits and effective dates established in the November 2022 version of Rule 1168 would result in delayed VOC emission reductions ranging from 0.42 tpd to 0.39 tpd through January 1, 2028. Alternative A would also retain the pCBtF prohibition, sell-through, and use-through dates established in the November 2022 version of Rule 1168 and, therefore, provide the earliest reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives. However, manufacturers of certain adhesives and sealants have indicated that they need additional time to develop compliant products or cannot meet the applicable VOC limits or pCBtF phaseout effective dates established in the November 2022 version of Rule 1168 due to technological limitations, creating potential compliance issues.

The main objectives of the PAR 1168 are to: 1) reduce VOC emissions from adhesives and sealants by establishing technologically feasible effective dates for compliance with the VOC limits established in the November 2022 version of Rule 1168; and 2) reduce potential exposure to pCBtF and t-BAc by establishing technologically feasible prohibition, sell-through, and use-through dates for products subject to Rule 1168.

Based upon proceeding discussion, the No Project Alternative is infeasible because it neither meets the objectives of PAR 1168 nor takes into consideration the conclusions of the technology assessment and the Stationary Source Committee's direction to take a

precautionary approach evaluating existing or proposed exemptions for any compound with a toxic endpoint.

Because Alternative A does not achieve the basic project objective, the Governing Board finds that the No Project Alternative is infeasible. [Public Resources Code 21081(a)(3); California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 1000-1001 (upholding finding of infeasibility where agency determined alternative failed to achieve project objective)].

B. Alternative B: More Stringent Proposed Project

Finding and Explanation:
The Final SEA analyzes Alternative B, which is more stringent than PAR 1168. Under Alternative B, the required effective date to meet the VOC limits would be six months earlier than the proposed project for the categories of Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant while the effective date to meet the VOC limit for Top and Trim Adhesive would need to occur 12 months earlier than PAR 1168. In addition, under this alternative, the pCBtF effective date, sell-through end date, and use-through end date would be 12 months earlier than the proposed project for Roof Adhesive Primers and Battery Adhesives. All other elements would be the same under Alternative B as for PAR 1168.

Alternative B would result in 0.146 tpd of delayed VOC emission reductions through July 1, 2028, and 0.115 tpd from July 1, 2028 through January 1, 2029, but the delay would be for a shorter period of time (i.e., six to 12 months less) when compared to PAR 1168. Alternative B would also establish the applicable pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives 12 months earlier than PAR 1168. Thus, of the remaining feasible alternatives, Alternative B would provide the earliest VOC emission reductions for certain categories of adhesives and sealants and the earliest reduction in potential exposure to pCBtF from Roof Adhesive Primers and Battery Adhesives by establishing earlier pCBtF phaseout dates and, therefore, would be considered both the lowest toxic and environmentally superior alternative. However, the technology assessment identified that additional time is needed for manufacturers to develop commercially available formulations for certain categories of adhesives and sealants that meet the VOC limits and pCBtF phaseout requirements established in the November 2022 version of Rule 1168. While Alternative B may be the environmentally superior alternative, uncertainty regarding the ability of manufacturers to meet the applicable VOC limits and pCBtF phaseout requirements within the earlier compliance timeframes may not be fully realistic as a practical matter. Thus, when compared to the proposed project, Alternative B may be infeasible at worst, or difficult to achieve at best, due to technological limitations and time constraints associated with developing and testing new formulations prior to making them commercially available for use.

The Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for VOC emissions to less than significant levels if Alternative B is

implemented. As such, the Governing Board finds that Alternative B will not avoid or substantially lessen the significant operational air quality impacts as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

C. Alternative C: Less Stringent Proposed Project

I. Finding and Explanation:
The Final SEA analyzes Alternative C, which is less stringent than the proposed project. Under Alternative C, the categories of Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant would have an additional six months to meet the VOC limits, and the category of Top and Trim Adhesive would have an additional 12 months later than the proposed project. In addition, under this alternative, the pCBtF effective date, sell-through end date, and use-through end date would be 12 months later than the proposed project for Roof Adhesive Primers and Battery Adhesives. All other elements would be the same under Alternative C as for PAR 1168.

With regards to comparing impacts between the proposed project and alternatives, Alternative C would provide the latest VOC emission reductions for certain categories of adhesives and sealants and the latest reduction in potential exposure to pCBtF from Roof Adhesive Primers and Battery Adhesives by establishing later pCBtF phaseout dates. Alternative C would result in 0.146 tpd of delayed VOC emission reductions through July 1, 2029, and 0.115 tpd from July 1, 2029 through January 1, 2031, but the delay would occur over a longer period of time (e.g., twelve months longer) when compared to the proposed project.

The Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for VOC emissions to less than significant levels if Alternative C is implemented. Therefore, the Governing Board finds that Alternative C will not avoid or substantially lessen the significant environmental effect as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

5.2 CONCLUSION OF FINDINGS

The Governing Board makes the following findings:

1) No feasible mitigation measures have been identified in the Final SEA that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels.

2) Alternative A, the No Project alternative, is infeasible because it does not achieve the proposed project objectives, and it does not take into consideration the conclusions of the technology assessment and the Stationary Source Committee's direction to take a precautionary approach evaluating existing or proposed exemptions for any compound with a toxic endpoint. Because Alternative A does not achieve the basic project objective,

the Governing Board finds that the No Project Alternative is infeasible. [Public Resources Code 21081(a)(3); California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 1000- 1001 (upholding finding of infeasibility where agency determined alternative failed to achieve project objective)].

3) Alternative B was identified in the Final SEA as the environmentally superior and least toxic alternative; however, for Alternatives B and C, the Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for VOC emissions to less than significant levels. As such, the Governing Board finds that neither Alternative B nor Alternative C will avoid or substantially lessen the significant operational air quality impacts as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

The Governing Board further finds that the Final SEA considered alternatives pursuant to CEQA Guidelines Section 15126.6, but there is no alternative to PAR 1168 that would reduce to insignificant levels the significant operational air quality impacts identified for the proposed project and still achieve the objectives of the proposed project.

The Governing Board further finds that the findings required by CEQA Guidelines Section 15091(a) are supported by substantial evidence in the record. The record of approval for this proposed project may be found in the South Coast AQMD's Clerk of the Board's Office located at South Coast AQMD headquarters in Diamond Bar, California.

6.0 STATEMENT OF OVERRIDING CONSIDERATIONS

If significant adverse impacts of a proposed project remain after incorporating mitigation measures, or no measures or alternatives to mitigate the adverse impacts are identified, the lead agency must make a determination that the benefits of the proposed project outweigh the unavoidable adverse environmental effects if it is to approve the proposed project. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. [CEQA Guidelines Section 15093(a)]. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable" [CEQA Guidelines Section 15093(a)]. Accordingly, a Statement of Overriding Considerations regarding potentially significant adverse operational VOC air quality impacts resulting from PAR 1168 has been prepared. This Statement of Overriding Considerations is included as part of the record of approval for PAR 1168. Pursuant to CEQA Guidelines Section 15093(c), the Statement of Overriding Considerations will also be noted in the Notice of Decision for PAR 1168.

Despite the inability to incorporate changes into PAR 1168 that will mitigate potentially significant adverse operational air quality impacts to a level of insignificance, the South Coast AQMD Governing Board finds that the following benefits and considerations outweigh the significant unavoidable adverse environmental impacts:

1. The analysis of potential adverse environmental impacts incorporates a "worst-case" approach which is based on the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method likely overestimates the actual adverse environmental impacts from PAR 1168.

2. The potential adverse impacts from implementing PAR 1168 consist of delayed VOC emission reductions, not emission increases. The delayed VOC emission reductions would ultimately occur once the applicable VOC limits become effective under the extended compliance dates.

3. Although PAR 1168 would delay the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF from Roof Adhesive Primers and Battery Adhesives, the t-BAc and pCBtF phaseout requirements established in the November 2022 version of Rule 1168 would remain in place and continue to apply under PAR 1168, with only the applicable phaseout dates for Roof Adhesive Primers and Battery Adhesives being extended. Accordingly, the air quality benefit associated with the pCBtF phaseout would be delayed but would eventually be realized once the extended phaseout dates take effect.

4. 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 volatile methyl siloxanes VMS in concentrations greater than 1.0 percent by weight, thereby providing an additional benefit of reduced toxicity.

5. PAR 1168 will provide relief for manufacturers of certain categories of adhesives and sealants which are technologically unable to meet the VOC limits or pCBtF phaseout requirements previously established in the November 2022 version of Rule 1168.

6. Although PAR 1168 would still cause significant operational air quality impacts for VOC emissions, it is considered to provide the best balance in achieving the project objectives while minimizing the significant adverse environmental impacts to operational air quality.

The South Coast AQMD Governing Board finds that the above-described considerations outweigh the unavoidable significant effects to the environment as a result of PAR 1168.

7.0 MITIGATION

CEQA requires an agency to prepare a plan for reporting and monitoring compliance with the implementation of measures to mitigate significant adverse environmental impacts. When making findings as required by Public Resources Code Section 21081 and CEQA Guidelines Section 15091, the lead agency must adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment [Public Resources Code Section 21081.6 and CEQA

Guidelines Section 15097(a)]. The provisions of CEQA Guidelines Section 15097 and Public Resources Code Section 21081.6 are triggered when the lead agency certifies a CEQA document in which mitigation measures changes, or alterations have been required or incorporated into the project to avoid or lessen the significance of adverse impacts identified in the CEQA document.

However, no feasible mitigation measures were identified for PAR 1168 that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. Since no feasible mitigation measures were identified, mitigation measures and a corresponding mitigation, monitoring and reporting plan are not required and have not been prepared.

8.0 RECORD OF PROCEEDINGS

For purposes of CEQA, including the Findings and Statement of Overriding Considerations, the Record of Proceedings for PAR 1168 consists of the following documents and other evidence, at a minimum:

- The Final SEA for PAR 1168, including appendices and technical studies attached to or referenced in the Final SEA, and all other public notices issued by South Coast AQMD for the Final SEA.
- The Draft SEA for the proposed project including appendices and technical studies included or referenced in the Draft SEA, and all other public notices issued by South Coast AQMD for the Draft SEA.
- The Preliminary Draft, Draft, and Final versions of the rule language and associated staff report.
- The Draft and Final version of the Socioeconomic Impact Assessment.
- All written and verbal public testimony presented during a noticed public hearing for PAR 1168.
- All documents, studies, EAs, or other materials incorporated by reference and tiered-off in the Draft SEA and Final SEA.
- The Resolution adopted by South Coast AQMD in connection with PAR 1168, and all documents incorporated by reference therein.
- Matters of common knowledge to South Coast AQMD, including but not limited to federal, state, and local laws and regulations.
- Any documents expressly cited in the Findings and Statement of Overriding Considerations.
- Any other relevant materials required to be in the record of proceedings by Public Resources Code Section 21167.6(e).
- The Notice of Decision, prepared in compliance with Public Resources Code Section 21080.5(d)(2)(E), CEQA Guidelines Section 15252(b), and South Coast AQMD Rule 110(f), if the Governing Board certifies the Final SEA and approves PAR 1168.

To comply with CEQA Guidelines Section 15091(e), the South Coast AQMD specifies the Deputy Executive Officer of the Planning, Rule Development, and Implementation Division as the custodian of the administrative record for PAR 1168, which includes the documents or other materials which constitute the record of proceedings upon which the South Coast AQMD's actions related to the proposed project is based, and which are located at the South Coast AQMD headquarters, 21865 Copley Drive, Diamond Bar, California 91765. Copies of these documents, which constitute the record of proceedings, are and at all relevant times have been and will be available upon request. This information is provided in accordance with Public Resources Code Section 21081.6(a)(2) and CEQA Guidelines Section 15091(e).

(Adopted April 7, 1989)(Amended March 2, 1990)(Amended Feb. 1, 1991)
(Amended July 19, 1991)(Amended August 2, 1991)
(Amended December 4, 1992)(Amended December 10, 1993)
(Amended April 11, 1997)(Amended February 13, 1998)(Amended September 15, 2000)
(Amended June 7, 2002)(Amended July 12, 2002)(Amended October 3, 2003)
(Amended January 7, 2005)(Amended October 6, 2017)(Amended November 4, 2022)
(Amended [Date of Adoption])
[RULE INDEX TO BE ADDED AFTER RULE ADOPTION]

PROPOSED AMENDED RULE 1168. ADHESIVE AND SEALANT APPLICATIONS

(a) Purpose

The purpose of this rule is to reduce emissions of volatile organic compounds (VOCs), toxic air contaminants, and stratospheric ozone-depleting compounds from the application of adhesives, adhesive primers, sealants, and sealant primers.

(b) Applicability

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

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) ACRYLIC is a thermoplastic polymer or a copolymer of acrylic acid, methacrylic acid, esters of these acids, or acrylonitrile.

(2) ACRYLONITRILE-BUTADIENE-STYRENE (ABS) plastic is made by reacting monomers of acrylonitrile, butadiene, and styrene and is normally identified with an ABS marking.

(3) ABS TO POLYVINYL CHLORIDE (PVC) TRANSITION CEMENT is Plastic Welding Cement used to join ABS and PVC building drains or building sewers.

(4) ABS WELDING CEMENT is a Plastic Welding Cement that is used to join ABS pipe, fittings, and other system components, including, but not limited to, components for shower pan liner, drain, closet flange, and backwater valve systems.

(5) ADHESIVE is any substance that is used to bond one surface to another surface by attachment.

(6) ADHESIVE PRIMER is a film-forming material applied to a substrate, prior to the application of an adhesive or adhesive tape, to increase adhesion or film bond strength, promote wetting, or form a chemical bond with a subsequently applied adhesive.

(7) ADHESIVE TAPE is a backing material coated with an adhesive, and includes, but is not limited to, drywall tape, heat sensitive tape, pressure-sensitive adhesive tape, and water-activated tape.

(8) AEROSOL ADHESIVE is any adhesive packaged as an Aerosol Product in which the spray mechanism is permanently housed in a can designed for hand-held application where no ancillary hoses or spray equipment is used.

(9) AEROSOL PRODUCT is a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. -Aerosol Products do not include Pump Spray.

(10) ARCHITECTURAL APPLICATION is the use of a Regulated Product on stationary structures, including mobile homes, and their appurtenances.

(11) ARCHITECTURAL APPURTENANCE is any accessory to a stationary structure, including, but not limited to, hand railings; cabinets; bathroom and kitchen fixtures; fences; rain-gutters and down-spouts; window screens; lamp-posts; heating and air conditioning equipment; other mechanical equipment; large fixed stationary tools; signs; motion picture and television production sets; and concrete forms.

(12) BATTERY ADHESIVE is 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 stresses.

(~~12~~13) BIG BOX RETAILER is a physically large -chain ~~retail outlet~~ Retail Outlet that is classified by the ~~U.S. Department of Labor~~ 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.

(~~13~~14) BUILDING ENVELOPE is the exterior and demising partitions of a building that enclose conditioned space.

(~~14~~15) BUILDING ENVELOPE MEMBRANE ADHESIVES are used to adhere membranes applied to the building envelope to provide a barrier to air or vapor leakage through the building envelope that separates conditioned from unconditioned spaces. ~~-~~Building Envelope Membranes are applied to diverse materials, including, but not limited to, concrete masonry units, oriented strand~~ed~~ board, gypsum board, and wood substrates.

(~~15~~16) CARPET PAD ADHESIVE is an adhesive used for the installation of a carpet pad (or cushion) beneath a carpet.

(~~16~~17) CERAMIC, GLASS, PORCELAIN, AND STONE TILE ADHESIVE is an adhesive used for the installation of tile products.

(18) 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.

(~~17~~19) CHLORINATED POLYVINYL CHLORIDE (CPVC) plastic is a polymer of the chlorinated polyvinyl monomer that contains 67~~%~~ percent chlorine and is normally identified with a CPVC marking.

(~~18~~20) CPVC WELDING CEMENT is a Plastic Welding Cement that is used to join CPVC pipe, fittings, and other system components, including, but not limited to, components for shower pan liner, drain, closet flange, and backwater valve systems.

(~~19~~21) CPVC WELDING CEMENT FOR LIFE SAFETY SYSTEM is a CPVC welding cement with an increased resistance to high temperatures which is used for life safety systems, including standalone and multipurpose fire sprinkler systems.

(~~20~~22) CLEAR, PAINTABLE, AND IMMEDIATELY WATER-RESISTANT SEALANT is a compound with adhesive properties that contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through itself when cured; is capable of being painted; is immediately resistant to precipitation upon application; and must meet the following criteria:

(A) Clarity of 15 turbidity units or less per ASTM Method D7315 - Determination of Turbidity Above 1 Turbidity Unit (TU) in Static Mode as manufactured and packaged;

(B) Color of Gardner 0 as tested by ASTM Method D1544 - Standard Test Method for Color of Transparent Liquids (Gardner Color

Scale) or Platinum-Cobalt Color of 50 or less using ASTM Method D1209 - Standard Test Method for Color of Clear Liquids (Platinum-Cobalt Scale) as manufactured and packaged; and

(C) Compatible with paint per ASTM Method C1520 - Standard Guide for Paintability of Latex Sealants.

(~~21~~23) COMPUTER DISKETTE MANUFACTURING is the process where the fold-over flaps are glued to the body of a vinyl jacket.

(~~22~~24) CONTACT ADHESIVE is an adhesive applied to two separate surfaces, allowed to dry before the two surfaces are placed in contact with each other, and forms an immediate bond after both adhesive-coated surfaces are placed in full contact with each other.

(~~23~~25) CONSUMER PRODUCTS REGULATION is the regulation implemented by the California Air Resources Board (CARB) under Title 17 of the California Code of Regulations, Section 94507, et seq.

(~~24~~26) COVE BASE ADHESIVE is a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge, that is used in forming a junction between the bottom wall course and the floor, to form an inside corner.

(~~25~~27) CUT EDGE SINGLE PLY ROOF MEMBRANE SEALANT is a Low-Solids sealant used on single ply roof membrane installations, which is designed to seal the non-factory edges (cut edges) with exposed scrim to inhibit water penetration.

(~~26~~28) CYANOACRYLATE ADHESIVE is an acrylic adhesive that contains ethyl, methyl, methoxymethyl or other functional groupings of cyanoacrylate.

(~~27~~29) DIP COAT is a method of application to a substrate by submersion into, and removal from, a bath.

~~(28) DISTRIBUTION CENTER is a warehouse or other specialized building, which is stocked with products (goods), to be redistributed to retailers, wholesalers, or directly to end-users.~~

(30) 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.

(~~29~~31) DRY WALL ADHESIVE is an adhesive used during the installation of gypsum dry wall to studs or solid surfaces.

(3032) EDGE GLUE ADHESIVE is an adhesive applied to the edge of multi-sheet carbonless forms prior to being fanned apart after drying.

(3133) ELECTROSTATIC APPLICATION is a spray method where the atomized droplets are charged and subsequently deposited on the substrate by electrostatic attraction.

(3234) EPDM/TPO SINGLE PLY ROOF MEMBRANE ADHESIVE is any adhesive to be used for the installation or repair of Ethylene Propylene Diene Terpolymer (EPDM) and Thermoplastic Polyolefin (TPO) single ply roof membrane. Installation includes, but is not limited to, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane.

(35) EXECUTIVE OFFICER is as defined in Rule 102 – Definition of Terms.

(3336) EXEMPT COMPOUNDS are as defined in Rule 102~~ Definition of Terms (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:

(A) Does not adopt a Cancer Inhalation Unit Risk Factor for Opteon 1100;

(B) Develops an acute reference exposure level (REL) or interim acute REL for Opteon 1100, which is higher than or equal to the acute REL or interim acute REL for trans-1-Chloro-3,3,3-Trifluoropropene (HFO-1233zd); and

(C) Develops a chronic REL or interim chronic REL for Opteon 1100, which is higher than or equal to the chronic REL or interim chronic REL for trans-1-Chloro-3,3,3-Trifluoropropene (HFO-1233zd).

(3437) FACILITY means any permit unit or grouping of permit units or other air contaminant-emitting activities which are located on one or more contiguous properties within the South Coast AQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same ~~person~~Person (or by

~~person~~Persons under common control). Such above-described groupings, if not contiguous, but connected only by land carrying a pipeline, shall not be considered one ~~facility~~Facility.

(~~35~~38) FIBERGLASS is fine filaments of glass.

(~~36~~39) FLOW COAT is an application method that coats an object by flowing a stream of Regulated Product over the object and draining off any excess product.

(~~37~~40) FOAM INSULATION is an expanding foam that is sprayed into ceiling or wall cavities to provide thermal resistance or to minimize air infiltration.

(~~38~~41) FOAM SEALANT is a foam used to fill and form a durable, airtight, water-resistant seal to common building substrates, such as wood, brick, concrete, foam board, and plastic.

(~~39~~42) GRAMS OF VOC PER LITER (g/L) OF REGULATED PRODUCT, LESS WATER AND LESS EXEMPT COMPOUNDS or REGULATORY VOC is the weight of VOC per combined volume of VOC and product solids, and can be calculated by the following equation:

~~Grams of VOC per Liter of Regulated Product, Less Water and Less Exempt Compounds~~

$$\text{Regulatory VOC (g/L-regulated product)} = \frac{\text{~~W_s~~}W_V - W_W - \text{~~W_{es}~~}W_{ex}}{V_m - V_W - \text{~~V_{es}~~}V_{ex}}$$

Where: ~~W_s~~ W_v = weight of volatile compounds, in grams (includes water, Exempt Compounds, and VOCs);

W_w = weight of water, in grams;

~~W_{es}~~ W_{ex} = weight of ~~exempt compounds~~Exempt Compounds, in grams;

V_m = volume of material, in liters;

V_w = volume of water, in liters; and

~~V_{es}~~ V_{ex} = volume of ~~exempt compounds~~Exempt Compounds, in liters.

For Regulated Products that contain ~~reactive products~~Reactive Products, the VOC content is determined after curing~~. The grams of VOC per liter of any~~

~~Regulated Product, except a Low-Solids product, shall~~ and can be calculated by the following equation:

~~Grams of VOC per Liter of Regulated Product, Less Water and Less~~

~~Exempt Compounds~~

$$\text{Regulatory VOC (g/L-regulated product)} = \frac{W_{rs} - W_{rw} - W_{res}}{V_{rm} - V_{rw} - V_{res}}$$

Where: W_{rs} = weight of volatile compounds not consumed during curing, in grams;

W_{rw} = weight of water not consumed during curing, in grams;

W_{res} = weight of ~~exempt compounds~~ Exempt Compounds not consumed during curing, in grams;

V_{rm} = volume of material prior to reaction, in liters;

V_{rw} = volume of water not consumed during curing, in liters; and

V_{res} = volume of ~~exempt compounds~~ Exempt Compounds not consumed during curing, in liters.

(~~40~~43) GRAMS OF VOC PER LITER OF MATERIAL or ACTUAL VOC is the weight of VOC per volume of material, to be used for a Low-Solids product, and can be calculated by the following equation:

~~Grams of VOC per Liter of Material~~

$$\text{Actual VOC (g/L-material)} = \frac{\text{~~W_s~~Wv} - W_w - \text{~~W_{es}~~Wex}}{V_m}$$

Where: ~~W_s~~ Wv = weight of volatile compounds, in grams (includes water, Exempt Compounds, and VOCs);

W_w = weight of water, in grams;

~~W_{es}~~ Wex = weight of ~~exempt compounds~~Exempt Compounds, in grams; and

V_m = volume of material, in liters.

For reactive products, the VOC content is determined after curing.

(~~41~~44) GROUT is a cement-based sealant formulated to fill or seal gaps, including those associated with, but not limited to, tile installations.

(~~42~~45) HAND APPLICATION METHODS is the application of a Regulated Product using handheld equipment. Such equipment includes paint brush, hand roller, trowel, spatula, dauber, rag, sponge, and mechanically- and/or pneumatically-driven syringe provided there is no atomization of the materials.

(~~43~~46) HIGH-PRESSURE TWO-COMPONENT FOAM SEALANT is a foam sealant packaged as two containers and applied using a propellant system that is pressurized to greater than or equal to 250 pounds per square inch (psi).

(~~44~~47) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is equipment used to apply a Regulated Product by means of a spray gun that is designed to be operated and that is operated between 0.1 and 10 ~~pounds per square inch~~ psi gauge air pressure measured dynamically at the center of the air cap and at the air horns.

(~~45~~48) HIGHER VISCOSITY CPVC WELDING CEMENT is a CPVC welding cement with a viscosity greater than or equal to 500 centipoise.

(~~46~~49) HOT APPLIED MODIFIED BITUMEN/BUILT UP ROOF ADHESIVE is a thermoplastic hot melt adhesive which requires high temperature conversion to a fluid at the point of application and complies with ASTM Method D312 - Standard Specification for Asphalt Used in Roofing or ASTM Method D6152 - Standard Specification for SEBS-Modified Mopping Asphalt Used in Roofing. Installation or repair includes the application of roofing insulation, roofing ply sheets, roofing membranes, and aggregate surfacing.

(~~47~~50) INDOOR FLOOR COVERING ADHESIVE is an adhesive used during the installation of a carpet or indoor flooring that is in an enclosure and is not exposed to ambient weather conditions during normal use.

(~~48~~51) LOW-PRESSURE TWO-COMPONENT FOAM SEALANT is a foam sealant packaged as two containers pressurized to less than 250 psi.

(~~49~~52) LOW-SOLIDS is any Regulated Product that contains less than one pound of solids per gallon of material (or 120 grams of solids per liter of material).

(~~50~~53) MAINTENANCE is a routine process to keep equipment and machinery in working order or to prevent breakdowns.

(54) 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, a Private Labeler is considered a Manufacturer.

(~~51~~55) MANUFACTURING is the use of tools and labor to make things for sale.

(~~52~~56) MARINE APPURTENANCES include, but are not limited to, a wood boardwalk, deck, dock, fender, lock gate, or other wooden structure specified for the marine environment.

(~~53~~57) MARINE DECK SEALANT is any sealant that is applied to wooden marine decks and their appurtenances and is specified and used exclusively for the marine environment.

(~~54~~58) MARINE DECK SEALANT PRIMER is any sealant primer that is applied to wooden marine decks and their appurtenances and is specified and used exclusively for the marine environment.

(59) 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.

(~~55~~60) MODIFIED BITUMINOUS PRIMER consists of bituminous materials, and a high flash solvent used to prepare a surface by:

(~~1~~A) ~~improving~~ Improving the adhesion; and

(~~2~~B) ~~absorbing~~ Absorbing dust from the surface for adhesive or flashing cement bitumen membrane.

(~~56~~61) MODIFIED BITUMINOUS MATERIALS are materials obtained from natural deposits of asphalt or residues from the distillation of crude oil petroleum or coal which consist mainly of hydrocarbons, and include, but are not limited to, asphalt, tar, pitch, and asphalt tile that are soluble in carbon disulfide.

(~~57~~62) MULTI-PURPOSE CONSTRUCTION ADHESIVE is any adhesive to be used for the installation or repair of various construction materials, including, but not limited to, drywall, subfloor, panel, fiberglass reinforced plastic, ceiling tile, and acoustical tile.

(~~58~~63) NON-STAINING PLUMBING PUTTY is a non-staining sealant formulated for use on natural surface materials that remains flexible and creates a waterproof seal when setting plumbing fixtures.

(~~59~~64) ONE-COMPONENT FOAM SEALANT is a foam sealant packaged in aerosol containers and dispensed using propellant under pressure.

(~~60~~65) OUTDOOR FLOOR COVERING ADHESIVE is an adhesive used during the installation of carpet or floor covering that is not in an enclosure and is exposed to ambient weather conditions during normal use.

(~~61~~66) OZONE-DEPLETING COMPOUND is as defined in Rule 102.

(~~62~~67) PANEL ADHESIVE is an adhesive used for the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, and similar pre-decorated or non-decorated panels to studs or solid surfaces.

(~~63~~68) PERCENT VOC BY WEIGHT is the ratio of the weight of the VOC to the weight of the material, expressed as a percentage of VOC by weight. -The percent VOC by weight can be calculated as follows:

$$\text{~~\%~~Percent VOC by weight} = \frac{W_v}{W} \times 100$$

Where: W_v = weight of the VOCs, in grams; and

W = weight of material, in grams.

(~~64~~69) PERSON is as defined in Rule 102.

(~~65~~70) PLASTIC ADHESIVE PRIMER is a material applied to CPVC and PVC plastic to prepare joining surfaces for the application of CPVC or PVC welding cements.

(~~66~~71) PLASTIC WELDING CEMENT is the use of adhesives made of resins and solvents which are used to dissolve the surfaces of plastic, except ABS, CPVC, and PVC plastic, to form a bond between mating surfaces.

(~~67~~72) PLASTIC FOAM is a foam constructed of plastics.

(~~68~~73) PLASTICS are synthetic materials chemically formed by the polymerization of organic (carbon-based) substances. -Plastics are usually compounded with modifiers, extenders, and/or reinforcers. –They are capable of being molded, extruded, cast into various shapes and films, or drawn into filaments and are used to produce pipe, solid sheet, film, or bulk products.

(~~69~~74) POLYCARBONATE is a thermoplastic resin derived from bisphenol A and phosgene, a linear polyester of carbonic acid, dihydroxy compound and any carbonate diester, or by ester interchange.

(7075) POLYETHYLENE TEREPHTHALATE is a thermoplastic polyester formed from ethylene glycol by direct esterification or by catalyzed ester exchange between ethylene glycol and dimethyl terephthalate.

(7176) POLYETHYLENE TEREPHTHALATE GLYCOL is a glycol modified polyethylene terephthalate.

(7277) POLYVINYL CHLORIDE (PVC) plastic is a polymer of the vinyl chloride monomer that contains 57 percent chlorine.

(7378) POROUS MATERIAL is a substance which has tiny openings, often microscopic, in which fluids may be absorbed or discharged. –Such materials include, but are not limited to, wood, fabric, paper, corrugated paperboard, and plastic foam.

(7479) POTABLE WATER ~~ARCHITECTURAL~~ SEALANT is a sealant used in water treatment or water distribution applications required to comply with ~~NSF~~National Sanitation Foundation/~~ANSI~~ American National Standards Institute Standard 61: Drinking Water System Components – Health Effects.

(7580) PRESSURE SENSITIVE ADHESIVE is an adhesive, typically coated on backings or release liners that forms a bond when pressure is applied, without the need for solvent, water, or heat.

(7681) PRIVATE LABELER is the ~~person~~Person, company, firm, or establishment (other than the ~~toll manufacturer~~Toll Manufacturer) identified on the label of a Regulated Product.

(82) 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.

(7783) PUMP SPRAY is a packaging system in which the product ingredients within the container are not under pressure and in which the product is

expelled only while a pumping action is applied to a button, trigger, or other actuator.

(~~78~~84) PVC WELDING CEMENT is a Plastic Welding Cement that is used to join PVC pipe, fittings, and other system components, including, but not limited to, components for shower pan liner, drain, closet flange, and backwater valve systems.

(~~79~~85) QUANTITY AND EMISSION~~S~~ REPORTS (QER) are the reports specified in subdivision (e).

(~~80~~86) REACTIVE PRODUCTS are 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: polyurethane~~s~~, ~~and~~ 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.

(~~81~~87) REGULATED PRODUCT is an adhesive, adhesive primer, sealant, or sealant primer subject to this rule.

(~~82~~88) REINFORCED PLASTIC COMPOSITE is a composite material consisting of plastic reinforced with fibers.

(~~83~~89) REPAIR is an operation or activity to return a damaged object or an object not operating properly, to good condition.

(90) 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.

(~~84~~91) ROADWAY SEALANT is any sealant to be applied to streets, highways, and other surfaces, including, but not limited to, curbs, berms, driveways, and parking lots.

(~~85~~92) ROLL COATER is a series of mechanical rollers that form a thin film on the surface roller, which is applied to a substrate by moving the substrate underneath the roller.

(~~86~~93) ROOF ADHESIVE PRIMER is a film-forming material applied to a substrate, prior to the application of an adhesive or adhesive tape to increase adhesion or bond strength, promote wetting, or form a chemical bond with a subsequently applied adhesive and is marketed and sold exclusively for the installation or repair of roofing materials.

(~~87~~94) ROOF SEALANT PRIMER is a film-forming material applied to a substrate prior to the application of a sealant to increase bond strength and is marketed and sold exclusively for the installation or repair of roofing materials.

(~~88~~95) RUBBER is any natural or manmade rubber-like substrate, and includes, but is not limited to, styrene-butadiene, polychloroprene (neoprene), butyl, nitrile, chlorosulfonated polyethylene, and ethylene propylene diene terpolymer.

(~~89~~96) RUBBER FLOOR~~ING~~ ADHESIVE is an adhesive that is used for the installation of flooring material in which both the back and top surfaces are made of synthetic rubber, and which may be in sheet or tile form.

(~~90~~97) RUBBER VULCANIZATION ADHESIVE is a reactive adhesive used for rubber-to-substrate bonding achieved during vulcanization of the rubber elastomer at temperatures greater than 250°F. Vulcanized rubber adhesive does not include bonding previously vulcanized rubber.

(~~91~~98) SEALANT is any material with adhesive properties that is designed to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. Sealants include caulks.

(~~92~~99) SEALANT PRIMER is any film-forming product applied to a substrate, prior to the application of a sealant, to enhance the bonding surface.

(~~93~~100) SHINGLE LAMINATING ADHESIVE is an asphalt based thermoplastic hot melt adhesive used to adhere individual layers during the manufacture of multi-layer asphalt shingles.

(~~94~~101) SHOE REPAIR, LUGGAGE AND HANDBAG ADHESIVE is an adhesive used to repair worn, torn, or otherwise damaged uppers, soles, and heels of shoes, or for making repairs to luggage and handbags.

(~~95~~102) SINGLE PLY ROOF MEMBRANE ADHESIVE (EXCEPT EPDM/TPO) is any adhesive to be used for the installation or repair of any non EPDM or TPO single ply roof membrane. Installation includes, but is not limited to, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes, or ducts that protrude through the membrane.

(~~96~~103) SINGLE PLY ROOF MEMBRANE SEALANT (EXCEPT CUT EDGE) is any sealant used for the installation or repair, except for sealing the cut edges, of single ply roof membrane.

(~~97~~104) SOLVENT WELDING is the softening of the surfaces of two substrates by wetting them with solvents, and/or adhesives, and joining them together through a chemical and/or physical reaction(s) to form a fused union.

(105) 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).

(~~98~~106) SPECIAL PURPOSE CONTACT ADHESIVE is a contact adhesive that is used to bond ~~all of~~ the following substrates to any surface: melamine covered board, metal, unsupported vinyl, ~~Teflon~~Polytetrafluoroethylene, ultra-high molecular weight polyethylene, rubber, and wood veneer 1/16 inch or less in thickness.

(~~99~~107) STRUCTURAL GLAZING ADHESIVE is any adhesive to be used to adhere glass, ceramic, metal, stone, or composite panels to exterior building frames.

(~~100~~108) STRUCTURAL WOOD MEMBER ADHESIVE is an adhesive used for the construction of any load bearing joints in wooden joists, trusses, or beams.

(~~101~~109) SUBFLOOR ADHESIVE is an adhesive used for the installation of subflooring material over floor joists.

(~~102~~110) THIN METAL LAMINATING ADHESIVE is an adhesive for bonding multiple layers of metal to metal or metal to plastic in the production of electronic or magnetic components in which the thickness of the bond line(s) is less than 0.25 mil.

(~~103~~111) TIRE REPAIR is the expanding of a hole, tear, fissure, or blemish in a tire casing by grinding or gouging, applying adhesive, and filling the hole or crevice with rubber.

(~~104~~112) TIRE TREAD ADHESIVE is any adhesive to be applied to the back of precured tread rubber and to the casing and cushion rubber, or to be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

(~~105~~113) TOLL MANUFACTURER is a ~~Regulated Product~~ third-party ~~manufacturer~~Manufacturer who produces Regulated Product for a ~~private labeler~~Private Labeler.

(~~106~~114) TOP AND TRIM ADHESIVE is an adhesive used during the installation of automotive and marine trim, including, but not limited to, headliners, vinyl tops, vinyl trim, sunroofs, dash covering, door covering, floor covering, panel covering, and upholstery.

(~~107~~115) TOXIC AIR CONTAMINANT ~~(TAC)~~ is an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health as listed by the Office of Environmental Health Hazard Assessment.

(~~108~~116) TRAFFIC MARKING TAPE is preformed reflective tape that is applied to public streets, highways, and other surfaces, including, but not limited to, curbs, berms, driveways, and parking lots.

(~~109~~117) TRAFFIC MARKING TAPE ADHESIVE PRIMER is any Adhesive Primer that is applied to surfaces prior to installation of traffic marking tape.

(~~110~~118) TRANSFER EFFICIENCY is the ratio of the weight or volume of the Regulated Product solids adhering to an object to the total weight or volume, respectively, of the Regulated Product solids dispensed in the application process, expressed as a percentage.

(~~111~~119) VINYL COMPOSITION~~S~~ TILE (VCT) is a material made from thermoplastic resins, fillers, and pigments.

(~~112~~120) VEHICLE GLASS ADHESIVE PRIMER is a primer applied to vehicle glass or to the frame of a vehicle prior to installation or repair of the vehicle glass using an adhesive or sealant to improve adhesion to the pinch weld. -For the purposes of this definition, a vehicle is a mobile machine that transports passengers or cargo, and includes, but is not limited to, automobiles, trucks, buses, motorcycles, trains, ships, and boats.

(~~113~~121) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102.

(~~114~~122) WATERPROOF RESORCINOL GLUE is a two-part, resorcinol-resin-based adhesive used in applications where the bond line must be resistant to conditions of continuous immersion in fresh or salt water.

(~~115~~123) WOOD FLOORING ADHESIVE is an adhesive used to install a wood floor surface, which may be in the form of parquet tiles, wood planks, or strip-wood.

(d) Requirements

(1) A ~~person~~Person shall not use, sell, store, supply, distribute, offer for sale, or manufacture Regulated Products subject to the provisions of this rule, which contain VOC in excess of the applicable limits specified in Table 1 – Regulated Product Categories and VOC Content Limits ~~below~~:

Table 1 – Regulated Product Categories and VOC Content Limits

Category	Regulatory VOC Limits (g/L-regulated product unless otherwise indicated)[1]			Future Effective Date
	Current Limit[2]	~~Limit Effective 1/1/2023~~	Limit at Future Effective Date	
Adhesives				
Architectural Applications				
Building Envelope Membrane Adhesive	250			
Carpet Pad Adhesive	50			
Ceramic Glass, Porcelain, & Stone Tile Adhesive	65			
Cove Base Adhesive	50			
Dry Wall and Panel Adhesive	50			
Multi-Purpose Construction Adhesives	70			
Roofing				
Hot Applied Modified Bitumen/Built Up Roof Adhesive	~~250~~30	~~30~~		
EPDM/TPO Single Ply Roof Membrane Adhesive	250			
Single Ply Roof Membrane Adhesive (Except EPDM/TPO)	250			
Shingle Laminating Adhesive	~~250~~30	~~30~~		
All Other Roof Adhesives	250			
Rubber Floor Adhesive	60			
Structural Glazing Adhesive	100			
Structural Wood Member Adhesive	140			
Subfloor Adhesive	50			
VCT and Asphalt Tile Adhesive	50			
Wood Flooring Adhesive	~~100~~20	~~20~~		
All Other Indoor Floor Covering Adhesives	50			

Category	Regulatory VOC Limits (g/L-regulated product unless otherwise indicated)[1]			Future Effective Date
	Current Limit[2]	~~Limit Effective 1/1/2023~~	Limit at Future Effective Date	
All Other Outdoor Floor Covering Adhesives	50			
Battery Adhesive	120			
Computer Diskette Manufacturing Adhesive	350			
Contact Adhesive	80			
Edge Glue Adhesive	250			
Plastic Welding Cement				
ABS Welding Cement	325			
ABS to PVC Transition Cement	~~510~~425	~~425~~		
CPVC Welding Cement	~~490~~400	~~400~~		
CPVC Welding Cement For Life-Safety Systems	490			
Higher Viscosity CPVC Welding Cement	~~490~~400		~~400~~	~~7/1/2024~~
PVC Welding Cement	~~510~~425	~~425~~		
All Other Plastic Welding Cements	100			
Rubber Vulcanization Adhesive	850		250	~~1/1/2028~~ 1/1/2029
Special Purpose Contact Adhesive	250			
Thin Metal Laminating Adhesive	780			
Tire Tread Adhesive	100			
Top and Trim Adhesive	540		250	~~1/1/2028~~ 1/1/2030
Waterproof Resorcinol Glue	170			
All Other Adhesives	250			
Substrate Specific Adhesives				
Metal	30			
Plastic Foam~~s~~	50			
Porous Material (except wood)	50			
Wood	30			
Fiberglass	80			
Reinforced Plastic Composite	200			
Sealants				
Architectural Applications				

Category	Regulatory VOC Limits (g/L-regulated product unless otherwise indicated)[1]			Future Effective Date
	Current Limit[2]	~~Limit Effective 1/1/2023~~	Limit at Future Effective Date	
Clear, Paintable, and Immediately Water-Resistant Sealant	380		250	~~1/1/2026~~ 1/1/2029
Foam Insulation	~~250~~5%[3]	~~5%[2]~~		
One-Component Foam Sealant	~~250~~18%		~~18%[2]~~	~~7/1/2023~~
High-Pressure Two-Component Foam Sealant	~~250~~5%	~~5%[2]~~		
Low-Pressure Two-Component Foam Sealant	~~250~~5%	~~5%[2]~~		
Grout	65			
Roadway Sealant	250			
Non-Staining Plumbing Putty	~~150~~50	~~50~~		
Potable Water Sealant	100			
Roofing				
Single Ply Roof Membrane Sealant (Except Cut Edge)	~~450~~250	~~250~~		
Cut Edge Single Ply Roof Membrane Sealant	~~450~~250	~~250~~		
All Other Roof Sealants	300			
All Other Architectural Sealants	50			
Marine Deck Sealant	760			
All Other Sealants	~~420~~250	~~250~~		
Adhesive Primers				
Plastic	550			
Pressure Sensitive	785			
Traffic Marking Tape	150			
Vehicle Glass	700			
Roof Adhesive Primer~~s~~	250			
All Other Adhesive Primers	250			
Sealant Primers				
Architectural Applications				
Non Porous	250			
Porous	775			
Marine Deck	760			
Modified Bituminous	500			

Category	Regulatory VOC Limits (g/L-regulated product unless otherwise indicated)[1]			Future Effective Date
	Current Limit[2]	~~Limit Effective 1/1/2023~~	Limit at Future Effective Date	
Roof Sealant Primers	750			
All Other Sealant Primers	750			

1. VOC limits are expressed as the Regulatory VOC~~grams of VOC per liter of Regulated Product, less water and less exempt compounds,~~ as defined in paragraph (c)(~~39~~42), except for: Low-Solids Regulated Products, where the VOC limits ~~is~~are expressed as the Actual VOC~~in grams per liter of material~~ as defined in paragraph (c)(~~40~~43), and VOC limits listed as a percent, which are expressed as VOC by weight as defined in paragraph (c)(68).
2. The specified limits remain in effect unless revised limits are listed in subsequent columns in the table. ~~VOC limits are expressed as percent VOC by weight as defined in paragraph (c)(63).~~

(2) Alternative PW-MIR VOC Content Limits

In lieu of complying with the Table 1 VOC content limits, a Person may manufacture, supply, sell, offer for sale, market, distribute, package, or repackage any Regulated Product listed in Table 2 – Alternative PW-MIR VOC Limits for use within South Coast AQMD, that:

(A) Complies with the Table 2 Alternative PW-MIR VOC limit; and

(B) Shall calculate the PW-MIR VOC content using the October 2, 2010 MIR values listed in the Title 17, California Code of Regulations Sections 94700 and 94701 unless the MIR values are revised. If the MIR values are revised, a Person may continue to use the October 2, 2010 MIR values to determine the PW-MIR VOC content for up to three years after the effective date of the amended regulation, after which a Person shall use the revised MIR values to determine the PW-MIR VOC content.

Table 2 – Alternative PW-MIR VOC Limits

Category	g O_3/g Product
All Other Adhesive Primer	0.65
Roof Adhesive Primer	0.65
Top and Trim Adhesive	0.60

(~~2~~3) Regulated Product Categorization

Adhesives not regulated by a specific adhesive category and Regulated Products that are suitable for more than one category in Table 1 shall be regulated as follows:

(A) Adhesives not regulated by a specific adhesive category, shall be limited to the VOC limits listed under the Substrate Specific Adhesive category in Table 1, if anywhere on the Regulated Product container, on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the Regulated Product may be used, or is suitable for use, on that substrate. If the adhesive is used to bond dissimilar substrates together, the higher Substrate Specific Adhesive VOC limit shall apply~~.~~; and

(B) If anywhere on the Regulated Product container, on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the Regulated Product may be used, or is suitable for use, as a Regulated Product for which a VOC standard in a specific category is specified in Table 1, then the lowest VOC standard shall apply. This provision does not apply to Substrate Specific Adhesives or the default categories which include: All Other Roof Adhesives, All Other Indoor Floor Covering Adhesives, All Other Outdoor Floor Covering Adhesives, All Other Plastic Welding Cements, All Other Adhesives, All Other Roof Sealants, All Other Architectural Sealants, All Other Sealants, All Other Adhesive Primers, and All Other Sealant Primers.

(~~3~~4) Sell-Through and Use-Through Provision

Any Regulated Product that is manufactured prior to the effective date of the applicable limit specified in Table 1 and that has a VOC content above that limit (but not above the limit in effect on the date of manufacture), may be sold, supplied, or offered for sale for up to three years after the specified effective date and used up to four years after the specified effective date.

(~~4~~5) All Regulated Product containers shall be closed when not in use. Any VOC-laden application tools, such as a brush, pad, rag, cloth, or paper, used in the Regulated Product application, shall be stored and disposed of in closed containers when not in use.

(~~5~~6) Solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of

VOC-containing materials, used in cleaning operations shall be conducted pursuant to Rule 1171 - Solvent Cleaning Operations.

(~~6~~7) Transfer Efficiency

A ~~person~~Person shall not apply VOC-containing Regulated Product unless the Regulated Product is applied with properly operating equipment in accordance with operating procedures specified by either the equipment ~~manufacturer~~Manufacturer or by use of one of the following methods:

(A) Electrostatic application;

(B) Flow coat;

(C) Dip coat;

(D) Roll coat;

(E) High-Volume, Low-Pressure (HVLP) spray;

(F) Hand application methods; or

(G) Such other application methods as are demonstrated to the Executive Officer to be capable of achieving a transfer efficiency equivalent to or better than the method listed in subparagraph ~~(d)(6)(E)~~(d)(7)(E) –and for which prior written approval of the Executive Officer has been obtained.

(~~7~~8) Control Devices

A ~~person~~Person may comply with the provisions of paragraph~~s~~ (d)(1), or ~~(d)(6)~~(d)(7), or both, by using approved air pollution control equipment to apply a Regulated Product, provided:

(A) The control device reduces VOC emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is no more than 50 parts per million VOC by volume calculated as carbon with no dilution; and

(B) The owner or operator demonstrates that the emission collection system collects at least 90 percent by weight of the VOC emissions generated by the sources of VOC emissions.

(~~8~~9) A ~~person~~Person may comply with the provisions of paragraph (d)(1) by means of an Alternative Emission Control Plan to apply a Regulated Product pursuant to Rule 108 – Alternative Emission Control Plans.

(~~9~~10) The VOC content of Regulated Products that are applied with the use of refillable pressurized spray system ~~are~~is subject to the VOC limits of this rule.

(~~10~~11) Except as provided in subdivision (j) and paragraphs (d)(2),~~(d)(3)~~(d)(4), ~~(d)(7)~~(d)(8), and ~~(d)(8)~~(d)(9), a ~~person~~Person shall not store Regulated Products which contain VOC in excess of the limits specified in paragraph (d)(1).

(~~11~~12) Containers used for mixing VOC-containing Regulated Products shall be kept closed at all times except when in use or when product is being added or removed.

(e) Reporting and Recordkeeping Requirements

(1) General Quantity and Emission Report (QER)

The ~~manufacturer~~ Manufacturer or ~~private labeler~~Private Labeler of Regulated Products shall submit to the South Coast AQMD a QER for Regulated Product sales into or within the South Coast AQMD according to the schedule in Table ~~2~~3. The QER for a ~~manufacturer~~ Manufacturer or ~~private labeler~~Private Labeler of Regulated Products shall include the following information:

(A) Product manufacturer (as listed on the label);

(B) Product name and code;

(C) Applicable Rule 1168 category;

(D) VOC content of Regulated Products as follows:

(i) Regulated Products subject to percent VOC by weight limits shall be reported as percent VOC by weight; and

(ii) All other Regulated Products shall be reported as:

(~~A~~I) Grams of VOC per liter of Regulated Product (less water and exempt solvents); and

(~~B~~II) Grams of VOC per liter of material

(E) Whether the product is waterborne or solvent-based;

(F) Weight percent of ~~tertiary-Butyl Acetate and~~ *para*-Chlorobenzotriflouride (pCBtF, CAS RN 98-56-6) and *tert*-Butyl Acetate (t-BAc, CAS RN 540-88-5) for any product containing more than 0.01 weight percent of either;

(G) Total annual ~~volume~~quantity of each product sold through Distributors ~~into or~~ located within or outside the South Coast AQMD for use in the South Coast AQMD~~,~~. The annual quantity of each product shall ~~including~~ include products sold to Retail Outlets, Distributors, and through Big Box Retailers with ~~Distribution~~

~~Center~~Distributors located within or outside the South Coast AQMD, reported in gallons for all container sizes; and

(H) For any Regulated Product with VOC content higher than the applicable limit in Rule 1168, an indication whether the product has been sold under any of the following provision of this rule:

(i) Sell-through provision;

(ii) Low-Solids product;

(iii) Exempted under subdivision (j);

(iv) Complying with ~~sub~~paragraph ~~(d)(7)~~(d)(8) – Control Device; or

(v) Complying with ~~sub~~paragraph ~~(d)(8)~~(d)(9) – Alternative Emission Control Plans.

(2) Aerosol QER

The ~~manufacturer~~ Manufacturer or ~~private labeler~~Private Labeler of ~~a~~Aerosol ~~a~~Adhesives and aerosol adhesive primers shall submit to the South Coast AQMD a QER of ~~a~~Aerosol ~~a~~Adhesive and aerosol adhesive primer sales into or within the South Coast AQMD according to the schedule in Table ~~2~~3. The report shall include the following information:

(A) Product manufacturer (as listed on the label);

(B) Product name and code;

(C) Percent VOC by weight;

(D) Weight percent of ~~tertiary-Butyl Acetate and para-Chlorobenzotriflouride~~pCBtF and t-BAc for any product containing more than 0.01 weight percent of either;

(E) Total weight sold, including products sold through ~~distribution centers~~Distributors located within or outside the South Coast AQMD, for use in the South Coast AQMD, and shall include products sold to Retail Outlets, Distributors, and through Big Box Retailers with Distributors located within or outside the South Coast AQMD; and

(F) Container size of product.

(3) A corporate officer of the ~~manufacturer~~Manufacturer or ~~private labeler~~Private Labeler of Regulated Products, who previously reported under paragraphs (e)(1) and (e)(2), that had no distribution or sales into or within the South Coast AQMD for the specified reporting years in Table ~~2~~3,

must certify that fact in a letter and on company letterhead by the reporting deadline specified in Table ~~2~~3.

(A) A ~~manufacturer~~Manufacturer or ~~private labeler~~Private Labeler of Regulated Products that has no intention to sell Regulated Products into or within the South Coast AQMD in future years, must indicate that fact to be removed from future outreach efforts~~.~~; and

(B) A ~~manufacturer~~Manufacturer or ~~private labeler~~Private Labeler of Regulated Products who resumes sales of Regulated Product into or within the South Coast AQMD, must adhere to the reporting requirements specified in paragraphs (e)(1) and (e)(2).

(4) Big Box Retailer ~~or Distribution Center~~ QER

A ~~big bBox rRetailer~~ Big Box Retailer ~~or distribution centers~~shall submit a QER to the Executive Officer and Regulated Product ~~manufacturer~~ Manufacturer or ~~private labeler~~Private Labeler, according to the schedule in Table ~~2~~3 and maintain records to verify all required data being reported for three years and make them available upon request by the Executive Officer. The QER must be electronically submitted, in a spreadsheet format and certified that all information reported is true and correct. The QER must contain the following information:

(A) The ~~manufacturer~~Manufacturer or ~~private labeler~~Private Labeler's product name and code; and

(B) The quantity of each Regulated Product, aerosol adhesive, and aerosol adhesive primer distributed into the South Coast AQMD.

(5) QER Reporting Timeline

A ~~manufacturer~~Manufacturer and ~~private labeler~~Private Labeler of Regulated Products~~;~~, and ~~big box retailers~~Big Box Retailer, ~~and distribution centers;~~ shall submit to the ~~South Coast AQMD~~Executive Officer a QER of Regulated Products sold into or within the South Coast AQMD according to the reporting timeline identified in Table ~~2~~3 ~~below~~:

Table ~~2~~3: Reporting Timeline

Reporting Deadlines		Reported Years
Manufacturers & Private Labelers	**Big Box Retailers ~~&~~ ~~Distribution Centers~~**	
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

(6) Facilities Using the 55-Gallon Exemption

For each calendar year (January 1 through December 31), through calendar year 2028, an owner or operator of a Facility using or purchasing Regulated Products under the provisions of paragraph ~~(j)(5)(C)~~(j)(11) shall submit to the South Coast AQMD by September 1st of the following calendar year, an annual report of Regulated Product used or purchased under the provisions of paragraph ~~(j)(5)(C)~~(j)(11) within the South Coast AQMD and maintain records to verify all required data being reported for three years from the date the report is submitted and make them available upon request by the Executive Officer. The final report required by this paragraph shall be submitted no later than September 1, 2029. The report shall include the following information:

(A) Product manufacturer (as listed on the label);

(B) Product name and code;

(C) Grams of VOC per liter of Regulated Product (less water and exempt solvents);

(D) Grams of VOC per liter of material;

(E) Unit size of product;

(F) Total volume purchased, in gallons; and

(G) The name and address of the company or retailer where the products were purchased.

(7) Distributor(s) List

On or before September 1, 2027, all Manufacturers and Private Labelers subject to this rule shall provide to the Executive Officer a list of all their

U.S. Distributors to whom they supply Regulated Products, that are supplied or sold for use in the South Coast AQMD and shall provide updates to the distributor(s) list to the Executive Officer on or before September 1st of each calendar year, if applicable. The distributor(s) list shall be in a format determined by the Executive Officer, and include:

(A) Distributor's name;

(B) Address;

(C) Contact person; and

(D) Phone number.

(8) On or before September 1, 2027, all Manufacturers and Private Labelers subject to this rule shall provide to the Executive Officer ~~details or~~ a copy of ~~any~~each unique written notification provided to ~~a~~their Distributor(s) pursuant to paragraph (j)(10), that the Regulated Product is not to be used in the South Coast AQMD, and shall provide updated notifications or new notifications to the Executive Officer on or before September 1st of each calendar year, if applicable.

~~(7)~~(9) Manufacturers or~~,~~ ~~private labeler~~Private Labelers~~, or suppliers~~ of Regulated Products shall maintain records to verify all required data being reported to the South Coast AQMD pursuant to ~~sub~~paragraphs (e)(1), (e)(2), and (e)(3). The records shall be maintained for three years and made available upon request by the Executive Officer. Such records shall include, but not be limited to:

(A) Laboratory reports or formulation data used for VOC content calculations; and

(B) Records used to determine annual sales volumes.

(10) Distributors shall maintain records of all annual sales of Regulated Products into and within the South Coast AQMD. The records shall be maintained for five years and made available upon request by the Executive Officer.

(11) If a Regulated Product includes two or more Manufacturers, they may mutually designate in writing the Manufacturer responsible for complying with the requirements in paragraphs (e)(1), (e)(2), (e)(3), (e)(5), (e)(7), and (e)(8). The Manufacturers shall provide the written mutual agreement to the Executive Officer by September 1, 2027, and provide any update to that mutual agreement to the Executive Officer on or before September 1st of each calendar year, if applicable.

~~(8)~~(12) An owner or operator of a Facility within the South Coast AQMD conducting operations, which include the use of Regulated Products, shall maintain records pursuant to Rule 109 – Recordkeeping ~~For~~for Volatile Organic Compound Emissions.

~~(9)~~(13) Confidentiality of Information

Subject to the provisions of the California Public Records Act (~~Gov Code §§ 6250-6276.48~~ Government Code Section 7920.000 et seq.) information submitted to the Executive Officer may be designated as confidential. The designation must be clearly indicated on the reporting form, identifying exactly which information is deemed confidential. South Coast AQMD guidelines require a detailed and complete basis for such claim in the event of a public records request.

(f) Test Methods

(1) The VOC content of Regulated Products shall be determined by the South Coast AQMD using the applicable test methods below. When a test method specifies it is inapplicable to a product category, it shall not be used for that inapplicable category. The "South Coast AQMD Test Method Guidance Document" determines which test method should be used when two or more applicable test methods can be used to demonstrate compliance with the rule. The selected test method will be based on product type, chemistry, and VOC content.

(A) VOC content may be determined by United States Environmental Protection Agency (U.S. EPA) Reference Method 24 – ~~(~~Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coating, Code of Federal Regulations Title 40, Part 60, Appendix A, utilizing Procedure B of ASTM Method D2369~~).~~;

(B) VOC content may be determined by South Coast AQMD Test Method 304 – ~~(~~Determination of Volatile Organic Compounds (VOC) in Various Materials~~) in the South Coast AQMD's "Laboratory Methods of Analysis for Enforcement Samples" manual.~~;

(C) Exempt compound content shall be determined by South Coast AQMD Test Method 303 – Determination of Exempt Compounds.~~in~~

~~the South Coast AQMD's "Laboratory Methods of Analysis for Enforcement Samples" or ASTM Method D4457.~~;

(D) VOC content may be determined by South Coast AQMD Test Method 313 – ~~(~~Determination of Volatile Organic Compounds VOC by Gas Chromatography-Mass Spectrometry~~) in the South Coast AQMD's "Laboratory Methods of Analysis for Enforcement Samples" manual.~~;

(E) VOC content may be determined by ASTM ~~Test~~ Method D6886 – ~~(~~Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography~~).~~;

(F) The VOC content of PVC, CPVC, ABS, ABS to PVC Transition Welding Cements, and plastic adhesive primers shall be determined by South Coast AQMD Test Method 316A – Determination of Volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings ~~in the South Coast AQMD's "Laboratory Methods of Analysis for Enforcement Samples."~~;

(G) The VOC content of cyanoacrylate adhesives shall be determined by South Coast AQMD Test Method 316B – Determination of Volatile Organic Compounds VOC in Adhesive containing Cyanoacrylates~~in the South Coast AQMD's "Laboratory Methods of Analysis for Enforcement Samples."~~; and

(H) The VOC content of reactive adhesives may be determined by Appendix A to Subpart PPPP of 40 CFR Part 63—Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives.

(2) The efficiency of the control device and the VOC content measured and calculated as carbon in the control device exhaust gases shall be determined by:

(A) U.S. EPA Test Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, or CARB Method 422 – Determination of Volatile Organic Compounds in Emissions from Stationary Sources for the determination of emissions of Exempt Compounds; and

(B) The total organic compound emissions shall be determined by:

(i) U.S. EPA Test Method~~s~~ 25 – Determination of Total Gaseous Nonmethane Organic Emissions as Carbon,

(ii) U.S. EPA Test Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyze,

(iii) South Coast AQMD Test Method 25.1 – Determination of Total Carbon Analysis Using GC/NDIR, or

(iv) South Coast AQMD Test Method 25.3. – ~~(~~Determination of Total Gaseous Non-Methane Organic Emissions as Carbon~~)~~ ~~for the determination of total organic compound emissions~~.

(3) Viscosity shall be determined by ASTM Method D-1084 – Standard Test Methods for Viscosity of Adhesives.

(4) The following classes of compounds shall be analyzed as Exempt Compounds for compliance with subdivision (d), only at such time as Manufacturers specify which individual compounds are used in the Regulated Product formulation and identify the test methods, which have been approved by the U.S. EPA, CARB and the Executive Officer prior to such analysis, that can be used to quantify amounts of each Exempt Compound:

(A) ~~cyclic~~Cyclic, branched, or linear, completely fluorinated alkanes;

(B) ~~cyclic~~Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

(C) ~~cyclic~~Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

(D) ~~sulfur~~Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine~~, will be analyzed as exempt compounds for compliance with subdivision (d), only at such time as manufacturers specify which individual compounds are used in the Regulated Product formulations and identify the test methods, which, prior to such analysis, have been approved by the U.S. EPA and the South Coast AQMD, that can be used to quantify the amounts of each exempt compound~~.

(5) Equivalent Test Methods

Other test methods may be used provided they are determined to be equivalent ~~after review by the Executive Officer, CARB, and the U.S. EPA,~~

and approved in writing by the U.S. EPA, CARB, and the ~~South Coast AQMD~~ Executive Officer~~, may also be used~~.

(6) All test methods referenced in this subdivision shall be the version most recently approved by the appropriate governmental entities.

(7) Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule.

(g) Administrative Requirements

(1) 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 in subdivision (f)~~.~~ ~~The~~the applicable VOC content shall be displayed as follows:

(A) ~~grams~~Grams of VOC per liter of Regulated Product, excluding water and exempt compounds, ~~for all but the following Regulated Products:~~ unless designated in subparagraphs (g)(1)(B) through (g)(1)(E);

(~~A~~B) ~~Low-Solids materials shall display the VOC as grams~~Grams of VOC per liter of material for Low-Solids materials;

(~~B~~C) ~~Effective January 1, 2026, Foam Insulation, One-Component Foam Sealants, High-Pressure Two-Component Foam Sealants, and Low-Pressure Two-Component Foam Sealant shall display the VOC as percent~~ Percent VOC by weight for Foam Insulation, One-Component Foam Sealants, High-Pressure Two-Component Foam Sealants, and Low-Pressure Two-Component Foam Sealants; ~~and~~

(D) Gram of O_3 per gram of product for Regulated Product complying with the alternative PW-MIR VOC limits in paragraph (d)(2); and

(~~C~~E) VOC content as percent VOC by weight for Regulated Products subject to both the provisions of this rule and the Consumer Products Regulation ~~may display the VOC content as percent VOC by weight~~ provided the Regulated Product has supplemental product documentation published from the ~~manufacturer~~Manufacturer that displays the VOC content in grams of VOC per liter of Regulated Product.

(2) Each container or an associated product data sheet shall display a statement of the ~~manufacturer~~Manufacturer's recommendations regarding thinning, reducing, or mixing with any other VOC containing material, if applicable. Mixing recommendations shall specify a ratio which results in a compliant, as applied, product.

(3) Each container shall display the date of manufacture of the contents or a date code indicating the date of manufacture. A ~~manufacturer~~Manufacturer utilizing a date code shall file an explanation of each date code with the ~~South Coast AQMD~~ Executive Officer.

(4) Each container of all Top and Trim Adhesives shall include the statement "For Top and Trim Uses Only" prominently displayed.

(5) Each container of all Rubber Vulcanization Adhesives shall include the statement "For Rubber Vulcanization Adhesive Uses Only" prominently displayed.

(6) Each container of all Pressure Sensitive Adhesive Primers shall include the statement "For Pressure Sensitive Adhesive Primer Uses Only" prominently displayed.

(7) Each container of all ABS to PVC Transition Cements shall include the statement "For ABS to PVC Transition Uses Only" prominently displayed.

(8) ~~Effective July 1, 2023, each~~ Each container of CPVC For Life Safety Systems shall include the statement "For CPVC Life Safety System Uses Only" prominently displayed.

(9) ~~Effective July 1, 2023, each~~ Each container of Higher Viscosity CPVC Welding Cement shall include a statement prominently displayed on the label to indicate if the product is formulated for "Medium" or "Heavy" or "Extra Heavy" applications.

(h) Prohibition of Sales and Use

(1) ~~Except as provided in subdivision (j), no~~ No ~~person~~Person shall use, supply, sell, ~~or~~ offer for sale, distribute, package, repackage, or possess a Regulated Product for use within the South Coast AQMD that contains more than any of the following chemicals in concentrations greater than the following limits:

(A) 0.01 percent by weight of ~~the following chemicals:~~ chloroform, ethylene dichloride, methylene chloride, perchloroethylene, trichloroethylene, or Group II exempt compounds~~. This provision~~

~~does not apply to~~ excluding cyclic, branched, or linear, completely methylated siloxanes (VMS);~~.~~

~~(2) Prohibition of tertiary-Butyl Acetate (t-BAc and para-Chlorobenzotriflouride (pCBtF)~~

~~On and after the prohibition effective dates specified in Table 3, no person shall manufacture a Regulated Product for sale into or within the South Coast AQMD or supply, sell, offer for sale or use a Regulated Product in the South Coast AQMD that contains more than~~

(B) 1.0 percent by weight of VMS that was manufactured after the applicable Table 4 –Prohibition Timeline Final Manufacture Date;

(C) 0.01 percent by weight of ~~either~~ pCBtF ~~or~~ t-BAc, or dimethyl carbonate (DMC, CAS RN 616-38-6) that was manufactured after the applicable Table 4 Final Manufacture Date for Regulated Products; and

(D) 1.0 percent by weight of pCBtF that was manufactured on and before the applicable Table 4 Final Manufacture Date for a Battery Adhesive.

(2) Sell Through and Use Through Provision

Any Regulated Product that is manufactured prior to the applicable Table 4 Final Manufacture Date, that contains more than the applicable limits in paragraph (h)(1), may be sold, supplied, or offered for sale until the applicable Table 4 Sell-Through Date and may be possessed, used, or solicited for use until the applicable Table 4 Use-Through Date.

Table 34: pCBtF and t-BAc Prohibition Timeline

Category	Prohibition Effective DateFinal Manufacture Date	Sell through Through End Date	Use through 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~~	~~January 1, 2027~~	~~January 1, 2028~~	~~January 1, 2028~~
Single Ply Roof Membrane Adhesive (Except EPDM/TPO)	January 1, 2025	January 1, 2028	January 1, 2028
Single Ply Roof Membrane Sealant (Except Cut Edge)			
All Other Roof Sealant			
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

(i) Rule 442 Applicability

Any Regulated Product which is exempt from all or a portion of this rule shall comply with the provisions of Rule 442 – Usage of Solvents.

(j) Exemptions

(1) The provisions of this rule shall not apply to:

(A) Adhesives, adhesive primers, sealants, or sealant primers, and associated application processes that are subject to Rule 1124 – Aerospace Assembly and Component Manufacturing Operations;

(B) Adhesive tape;

(C) Regulated Products shipped, supplied, or sold to ~~person~~Persons for use outside the South Coast AQMD; or

(D) ~~Distribution centers~~Distributors that do not ship Regulated Products into or within the South Coast AQMD.

(2) The provisions of this rule, except paragraph (e)(2), shall not apply to ~~a~~Aerosol ~~a~~Adhesives and aerosol adhesive primers dispensed from non-refillable aerosol spray systems.

(3) The provisions of this rule, except paragraphs (h)(1) and (h)(2), shall not apply to:

(A) Regulated Products sold in quantities of one fluid ounce or less;

(B) Adhesives used to glue flowers to parade floats;

(C) Adhesives used to fabricate orthotics and prosthetics under a medical doctor's prescription; or

(D) Shoe repair, luggage, and handbag adhesives.

(4) The provisions of subdivision (d) shall not apply to:

(A) Research and development programs and quality assurance labs~~. Records shall be~~ provided records are maintained ~~in accordance with the provisions of~~ pursuant to subdivision (e)~~ of this rule~~; or

(B) Solvent welding operations used in the manufacturing of medical devices.

(5) The provisions of paragraph (d)(1) shall not apply to the following:

(A) Adhesives used in tire repair;

(B) Adhesives and/or adhesive application processes in compliance with:

(i) Rule~~s~~ 1104 – Wood Flat Stock Coating Operations~~,~~;

(ii) Rule 1106 – Marine and Pleasure Craft Coating~~,~~;

(iii) Rule 1128 – Paper, Fabric, and Film Coating Operations~~,~~;

(iv) Rule 1130 – Graphic Arts~~,~~; and

(v) Rule 1130.1 – Screen Printing Operations; or

~~(C) A Facility that demonstrates that the total volume of noncompliant products is less than 55 gallons per facility per calendar year. A Facility may not use this paragraph to exclude noncompliant adhesives used in architectural applications; contact adhesives; special purpose contact adhesives; adhesives used on porous substrates; rubber vulcanization adhesives and top and trim adhesives; or~~

(~~D~~C) Regulated Products used in the field installation and repair of potable water linings and covers at water treatment, storage, or water distribution facilities.

(6) The provisions of paragraph ~~(d)(6)~~(d)(7) shall not apply to Regulated Products with a viscosity of 200 centipoise or greater.

(7) The provisions of subdivision (g) shall not apply to thermoplastic hot melt adhesives or to Regulated Products offered for sale as a dry mix, containing no polymer, which are ready for use or only mixed with water prior to use, and include, but are not limited to, grouts, cements, and mortars.

(8) The recordkeeping provisions in paragraph ~~(e)(8)~~(e)(12) shall not apply to an owner or operator of a Facility within the South Coast AQMD provided the VOC content of the Regulated Products are lower than the following:

(A) Regulated Products subject to percent VOC by weight limits, ~~2~~ two percent VOC by weight or half the applicable VOC limit, whichever is lower;

(B) Low-Solids Regulated Products, 20 grams per liter material or half the applicable VOC limit, whichever is lower; and

(C) All other Regulated Products, 20 grams per liter, or half the applicable VOC limit, less water and less exempt compounds, whichever is lower.

(9) The provisions of this rule shall not apply to Regulated Products, which weigh one pound or less, or consist of 16 fluid ounces or less and have VOC content limits in Section 94509(a) of the Consumer Products Regulation, unless they are:

(A) Incorporated into or used exclusively in the manufacture or construction of the goods or commodities, and not exempted in paragraph (j)(2); or

(B) Used in pollution-generating activities that take place at stationary sources, excluding maintenance and repair, and not exempted in paragraph (j)(2).

(10) The provisions of paragraph (d)(1) ~~and subdivision (h)~~ shall not apply to any ~~manufacturer~~ Manufacturer or Private Labeler ~~supplier of Regulated Products~~ provided the ~~product~~ Regulated Product was sold to an ~~independent distributor~~ Distributor that was informed in writing by the Manufacturer or Private Labeler, including electronic formats, ~~by the manufacturer or supplier,~~ that the Regulated Product is not to be used in the South Coast AQMD. Manufacturers and Private Labelers utilizing this provision shall comply with the reporting requirement pursuant to paragraph (e)(8) and maintain notification letters for ~~three~~five years~~, which shall be made available to the Executive Officer or designee upon request~~.

(11) Until January 1, 2029, the provisions of paragraph (d)(1) shall not apply to a Facility that demonstrates that the total volume of noncompliant products is less than 55 gallons per facility per calendar year provided the Facility complies with the reporting and recordkeeping requirements in paragraph (e)(6). A Facility may not use this paragraph to exempt adhesives used in architectural applications; contact adhesives; special purpose contact adhesives; adhesives used on porous substrates; rubber vulcanization adhesives and top and trim adhesives from the provisions of paragraph (d)(1).

ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1168 – Adhesive and Sealant Applications

December 2026

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EXECUTIVE SUMMARY

Rule 1168 – Adhesive and Sealant Applications 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 battery adhesives and to delay 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
- Battery Adhesive pCBtF phase out, January 1, 2029
- 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; prohibit the use of cyclic, branched, or linear, completely methylated siloxane (VMS) and dimethyl carbonate (DMC) due to toxicity and environmental concerns; 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 including:

- Workers who manufacture the VMS octamethylcyclotetrasiloxane (D4), use D4 in the processing of products including adhesives and sealants, or use paints and coatings containing D4 in industrial and commercial applications, and
- Consumers who use certain paints and coatings containing D4.

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)

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

- Roofing Contractors (NAICS 238160)
- Rubber Product Manufacturing for Mechanical Use (NAICS 326291)
- 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

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

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

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; however, one manufacturer indicated to staff that they intend to use this exemption during the reformulation. 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
- Building envelope membrane adhesives
- Clear, paintable, and immediate water-resistant sealant
- Cove base adhesive
- Edge glue adhesive
- Hand application methods
- High-pressure two component foam sealant
- High-volume low-pressure (HVLP) spray
- Hot applied modified bitumen/built up roof adhesive

- Percent VOC by weight
- Private labeler
- Potable water sealant
- Quantity and Emission Reports (QERs)
- Rubber floor adhesive
- Special purpose contact adhesive
- Toll manufacturer
- Toxic air contaminant
- Vinyl composition tile (VCT)

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.

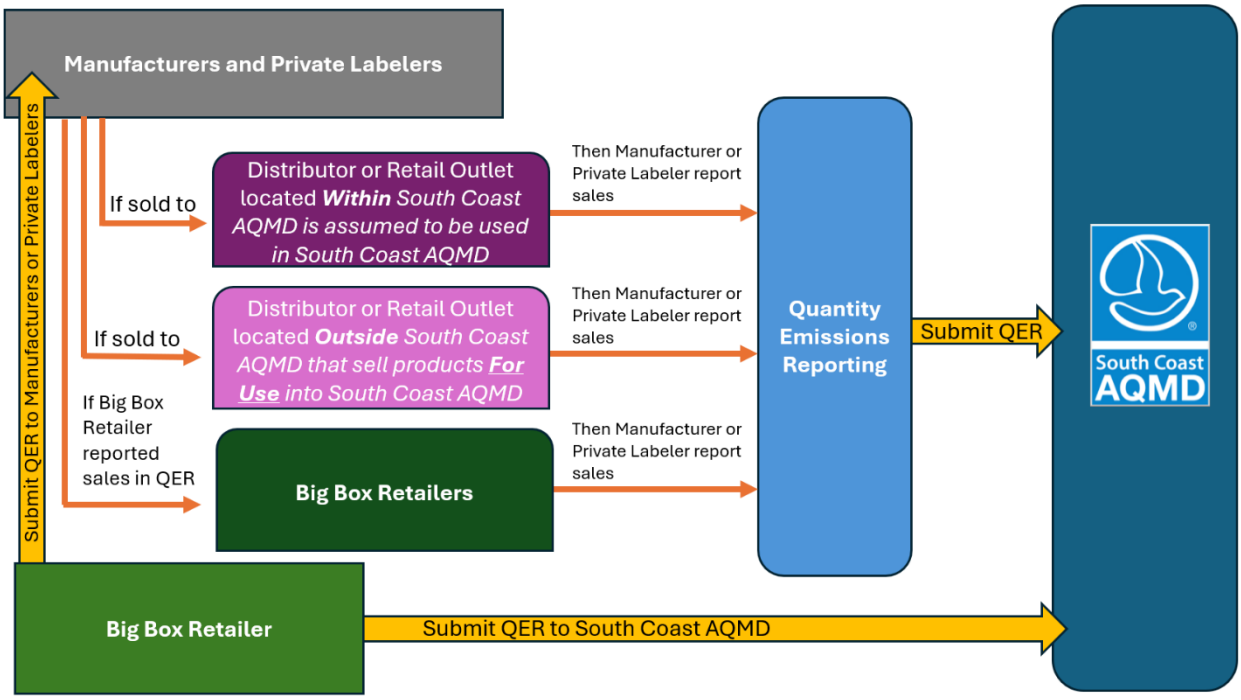

Figure 3-1: Reporting Requirement Flow Chart

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)(8) was clarified to specify that manufacturers are not required to submit duplicate copies of notifications provided to distributors and are required to submit only unique notifications.

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~~ are found in silicone-based sealants. VMS are not intentionally added to the adhesives and sealants, they are introduced as an impurity from some of the raw materials or resins. The Group II exempt solvent prohibition was included during the 2017 amendments, and it included an effective date of January 1, 2019.

~~PAR~~ Rule 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 primer, provide additional reformulation time to meet future-effective VOC limits for three product categories (i.e., top and trim adhesives, rubber vulcanization adhesives, 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. No comment letters were received during the comment period.~~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 • Closed containers for cleaning solvent storage	• 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 • VOC content limit for solvents used to clean application equipment and requirements to

	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			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

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.

EDDIE GONZALES | Executive Director of Marketing | **R.D. Abbott Co., Inc.**
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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. Note: PAR 1168 includes a sunset date of January 1, 2029 for the 55-gallon exemption with the last required reporting deadline of September 1, 2029.

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.

ATTACHMENT I

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Subsequent Environmental Assessment for:

Proposed Amended Rule 1168 – Adhesive and Sealant Applications

November 2026

State Clearinghouse No. 2017081031
South Coast AQMD No. 20260918ST/ 20220902ST/ 08162017DT

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PREFACE

This document constitutes the Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1168 – Adhesive and Sealant Applications.

The Draft SEA was circulated for a 46-day public review and comment period from September 18, 2026 to November 3, 2026. No comment letters were received during the comment period.

Subsequent to the release of the Draft SEA for public review and comment, minor modifications were made to the proposed project. PAR 1168 was revised to delay the 250 g/L VOC limit effective date for Clear, Paintable, and Immediately Water-Resistant Sealants for one additional year (from January 1, 2028, to January 1, 2029); delay the use-through date for Roof Adhesive Primers containing pCBtF for one additional year (from January 1, 2031, to January 1, 2032); increase the maximum allowable VMS concentration in Regulated Products from 0.1 percent by weight to 1.0 percent by weight; add an equivalent alternative reactivity based VOC limit for All Other Adhesive Primers; extend the 55 gallon phase out exemption from January 1, 2028 to January 1, 2029; and update definitions and the reporting and recordkeeping requirements. Therefore, some modifications have been made to the Draft SEA to make it a Final SEA which include updates to reflect the changes made to PAR 1168 after the public notice of availability of the Draft SEA. The updates to the CEQA analysis include: 1) revising the period during which delayed VOC emission reductions are expected from Clear, Paintable, and Immediately Water-Resistant Sealants due to delaying the effective date of the VOC limit for this category of sealants by one additional year; and 2) revising the analysis of the total peak day of delayed VOC emission reductions from PAR 1168. In addition, minor updates were made to Chapter 3 – Existing Setting to include an additional discussion of MATES VI, make minor revisions to the health effects of criteria pollutants, and update the references to CARB's Draft 2022 Scoping Plan to reflect the Final 2022 Scoping Plan published in 2022. To facilitate identification of the changes between the Draft SEA and the Final SEA, modifications to the document are included as <u>underlined text</u> and text removed from the document is indicated by ~~strikethrough text~~. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

South Coast AQMD staff has evaluated the modifications made to PAR 1168 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the proposed project and was considerably different from others previously analyzed, and 4) the Draft SEA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 1168 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA.

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CHAPTER 1

EXECUTIVE SUMMARY

Introduction

California Environmental Quality Act

Previous CEQA Documentation

Intended Uses of this Document

Areas of Controversy

Executive Summary

1.0 INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (South Coast AQMD) in 1977[1] as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin and portions of the Salton Sea Air Basin and Mojave Desert Air Basin. In 1977, amendments to the federal Clean Air Act (CAA) included requirements for submitting State Implementation Plans (SIPs) for nonattainment areas that fail to meet all federal ambient air quality standards [CAA Section 172], and similar requirements exist in state law [Health and Safety Code Section 40462]. The federal CAA was amended in 1990 to specify attainment dates and SIP requirements for ozone, carbon monoxide (CO), nitrogen dioxide (NO2), and particulate matter with an aerodynamic diameter of less than 10 microns (PM10). In 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated ambient air quality standards for particulate matter with an aerodynamic diameter less than 2.5 microns (PM2.5). The U.S. EPA is required to periodically update the national ambient air quality standards (NAAQS).

In addition, the California Clean Air Act (CCAA), adopted in 1988, requires the South Coast AQMD to achieve and maintain state ambient air quality standards for ozone, CO, sulfur dioxide, and NO2 by the earliest practicable date [Health and Safety Code Section 40910]. The CCAA also requires a three-year plan review, and, if necessary, an update to the SIP. The CCAA requires air districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures pursuant to Health and Safety Code Sections 40913, 40914, and 40920.5. The term "feasible" is defined in the California Environmental Quality Act (CEQA) Guidelines[2] Section 15364, as a measure "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

By statute, the South Coast AQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under the jurisdiction of the South Coast AQMD.[3] Furthermore, the South Coast AQMD must adopt rules and regulations that carry out the AQMP.[4] The AQMP is a regional blueprint for how the South Coast AQMD will achieve air quality standards and healthful air. Both the 2016 AQMP[5] and 2022 AQMP[6] contain multiple goals promoting reductions of criteria air pollutants, greenhouse gases (GHGs), and toxic air contaminants (TACs). Ozone is a criteria pollutant shown to adversely affect human health, and is formed when volatile organic compounds (VOCs) react with oxides of nitrogen (NOx) in the atmosphere. The 2016 AQMP states that both NOx and VOC emissions need to be addressed to reduce the formation of ozone and PM2.5, and VOC emission reductions are necessary to achieve the ozone standard attainment. Similarly, the 2022 AQMP states that both NOx and VOC emissions need to be addressed, while emphasizing that NOx emission reductions are more effective in reducing the formation of ozone and PM2.5. In particular, the 2016 AQMP includes Control Measure CTS-01 – Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants, which identifies Rule 1168 – Adhesive and

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., Ch. 324 (codified at Health and Safety Code Sections 40400-40540).
[2] The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.*
[3] Health and Safety Code Section 40460(a).
[4] Health and Safety Code Section 40440(a).
[5] South Coast AQMD, Final 2016 Air Quality Management Plan, March 2017. https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp
[6] South Coast AQMD, Final 2016 Air Quality Management Plan, December 2022. https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan

Sealant Applications, a rule that regulates VOC emissions, as having the potential to achieve additional VOC emission reductions. The 2022 AQMP also includes Control Measure CTS-01 – Further Emission Reductions from Coatings, Solvents, Adhesives, and Lubricants, which similarly identifies Rule 1168 and seeks VOC emission reductions by focusing on select coating, adhesive, solvent, and sealant categories through further limiting the allowable VOC content in formulations or incentivizing the use of super-compliant technologies. In addition, the 2016 AQMP and 2022 AQMP include Control Measure MCS-01 – Application of All Feasible Measures, and Control Measure MCS-02 – Application of All Feasible Measures Assessment, respectively, both of which seek to achieve emission reductions from all pollutants, including VOCs.

Rule 1168 includes 69 categories of adhesives, adhesive primers, sealants, and sealant primers with VOC limits, and 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).

Amendments to Rule 1168 were adopted on October 6, 2017 to partially implement CTS-01 and MCS-02 of the 2016 AQMP. The October 2017 amendments to Rule 1168 were designed to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. Some of the key amendments focused on lowering the VOC limits for certain categories and allowing a three-year sell-through and four-year use-through; adding new product categories with corresponding VOC content limits; requiring products marketed for use under varying categories to be subject to the lowest VOC limit; prohibiting the use of Rule 102 Group II exempt solvents, except volatile methyl siloxanes; and removing, modifying, or adding various exemptions.

The October 2017 amendments to Rule 1168 also included a commitment to conduct a technology assessment for top and trim adhesives, roofing products, plastic welding cements, and foam sealants to determine if products for nine adhesive and sealant categories were available that could achieve the VOC limits by January 1, 2023. Accordingly, the technology assessment was conducted in 2022 and concluded that some of these product categories either needed more time beyond January 1, 2023 to meet the VOC limits or that achieving the lower VOC limits would not be technically feasible.

In addition, due to potential toxicity concerns associated with tertiary-Butyl Acetate (t-BAc) and parachlorobenzotriflouride (pCBtF) and the uncertainty of on-site exposure modeling methodologies, the Stationary Source Committee of the South Coast AQMD Governing Board recommended a precautionary approach such that compounds with a known or suspected toxic endpoint will not be exempted from the definition of VOC in Rule 102 or other South Coast AQMD Rules. In 2017, t-BAc was identified as a carcinogen after it had been previously granted a partial exemption from the definition of a VOC in certain uses in several source specific rules, e.g., Rule 1113 – Architectural Coatings, and Rule 1151 – Automotive Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations, but not Rule 1168. Further, in 2020, pCBtF was identified as a stronger carcinogen than t-BAc after it had been previously exempted from the definition of a VOC in Rule 102 for all uses within the South Coast AQMD, including adhesives and sealants that would otherwise be subject to Rule 1168 requirements.

Based on the results of the 2022 technology assessment and the recommendation of the Stationary Source Committee of the South Coast AQMD Governing Board, Rule 1168 was amended on November 4, 2022 to: 1) prohibit the use of pCBtF and t-BAc due to toxicity concerns; 2) delay

the effective dates of VOC emission limits or maintain the existing VOC emission limits for certain categories of adhesives and sealants; 3) create additional subcategories of Regulated Products to better characterize and refine VOC emission limits; 4) allow Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) remove definitions and update, clarify, and streamline rule language. Implementation of the November 2022 version of Rule 1168 was expected to result in delayed and permanent foregone VOC emission reductions of 0.42 ton per day (tpd) and 0.28 tpd, respectively, due to extending the effective dates and maintaining the existing VOC limits for certain categories of Regulated Products, while lowering the potential for toxic chemicals to be used in adhesive and sealant products.

As part of adopting amendments to Rule 1168 on November 4, 2022, the South Coast AQMD Governing Board directed South Coast AQMD staff to report back to the Stationary Source Committee in January 2026 regarding the progress of phasing out pCBtF and t-BAc, including data reported in the Rule 1168 Quantity and Emission Reports and feedback from manufacturers of roofing adhesives and sealants. In response to this direction, South Coast AQMD staff conducted a technology assessment which concluded that manufacturers had already either phased out or are on track to phase-out pCBtF from all roofing categories except roofing adhesive primers. Thus, to allow more time for reformulations of roofing adhesive primers, staff developed Proposed Amended Rule 1168 (PAR 1168) to extend the pCBtF prohibition date.

PAR 1168 also seeks to: 1) delay future effective VOC limits for two adhesives categories and one sealant category to allow more time for reformulations; 2) include equivalent alternative reactivity-based limits for ~~two~~ three categories; 3) delete the exemption that allows facilities to use 55-gallons of non-compliant products per year; 4) require manufacturers to provide a list of their distributors annually; 5) transition reporting to recordkeeping requirement for distributors; 6) include a new category for battery adhesives with a longer phase out period for pCBtF; and 7) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented, if feasible. The purpose of the CEQA process is to inform the South Coast AQMD Governing Board, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing the proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of a Negative Declaration or EIR once the Secretary of the Resources agency has certified the regulatory program. The South Coast AQMD's regulatory program was certified on March 1, 1989 [CEQA Guidelines Section 15251(l)]. In addition, the South Coast AQMD adopted Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment, which implements the South Coast AQMD's certified regulatory program. Under the certified regulatory program, the South Coast AQMD

typically prepares an Environmental Assessment (EA) to evaluate the environmental impacts for rule projects proposed for adoption or amendment.

The October 2017 amendments to Rule 1168 sought to reduce emissions of VOCs by 1.38 tpd, as well as reduce toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The Final Environmental Assessment (EA)[7] for the October 2017 amendments to Rule 1168, which was certified by the South Coast AQMD Governing Board on October 6, 2017 (referred to herein as the October 2017 Final EA for Rule 1168), analyzed the environmental impacts associated with the activities manufacturers were anticipated to undertake to reformulate products and concluded that these reformulation activities could create secondary adverse environmental impacts. None of the environmental topic areas previously analyzed in the October 2017 Final EA were concluded to have significant and unavoidable impacts, including the topic of air quality and GHGs.

Rule 1168 was amended again in November 2022 which: 1) prohibited the use of pCBtF and t-BAc due to toxicity concerns; 2) delayed the effective dates of VOC emission limits or maintain the existing VOC emission limits for certain categories of adhesives and sealants; 3) created additional subcategories of regulated products to better characterize and refine VOC emission limits; 4) allowed Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) removed definitions and updated, clarified, and streamlined rule language. The Final Subsequent Environmental Assessment (SEA)[8] for the November 2022 amendments to Rule 1168, which was certified by the South Coast AQMD Governing Board on November 4, 2022 (referred to herein as the November 2022 Final SEA for Rule 1168), analyzed the environmental impacts associated with the November 2022 version of Rule 1168. The types of activities and associated environmental impacts with implementing the VOC limits and compliance dates subject to the October 2017 Rule 1168 amendments were compared to the November 2022 version of Rule 1168; the November 2022 Final SEA for Rule 1168 concluded that the type and extent of the anticipated physical changes would be similar and would cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the October 2017 Final EA for Rule 1168 except for the topic of air quality and GHG emissions. Specifically, the November 2022 Final SEA for Rule 1168 concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts due to delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term. No feasible mitigation measures were identified that would avoid or lessen these significant air quality impacts.

PAR 1168 is considered a "project" as defined by CEQA. PAR 1168 proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives ~~and,~~ Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the

[7] South Coast AQMD, 2017. Final Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1168 – Adhesive and Sealant Applications, SCH No. 2017081031. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/par1168FEA.pdf

[8] South Coast AQMD, 2022. Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1168 – Adhesive and Sealant Applications, SCH No. 2017081031. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/par-1168-final-sea.pdf

exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

When comparing the types of activities and associated environmental impacts with implementing the VOC limits and compliance dates subject to the November 2022 version of Rule 1168 as previously analyzed in the November 2022 Final SEA, to the currently proposed changes which comprise PAR 1168, the type and extent of the physical changes are expected to be similar and will cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the November 2022 Final SEA for Rule 1168. Thus, the proposed project is expected to have generally the same or similar effects that were previously examined in the November 2022 Final SEA for Rule 1168 but that the air quality impacts from PAR 1168 will result in additional delayed VOC emission reductions, which will be more severe than what was discussed in November 2022 Final SEA for Rule 1168. In addition, extending the pCBtF phase-out dates in PAR 1168 for roof adhesive primers and battery adhesives would delay the health protective benefits from reduced exposures to pCBtF for these adhesive categories when compared to the November 2022 amendments to Rule 1168.

Therefore, the proposed project contains new information of substantial importance which was not known and could not have been known at the time the November 2022 Final SEA for Rule 1168 was certified [CEQA Guidelines Section 15162(a)(3)]. Moreover, the analysis indicates that the type of CEQA document appropriate for the proposed project is a Subsequent Environmental Assessment (SEA), which contains the environmental analysis required by CEQA Guidelines Section 15187 and tiers off of the November 2022 Final SEA for Rule 1168, which itself tiered off of the October 2017 Final EA for Rule 1168. Thus, this SEA is a subsequent document to and tiers off of the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

Because this is a subsequent document, the baseline is the project analyzed in the October 2017 Final EA for Rule 1168. The SEA is a substitute CEQA document prepared in lieu of a Subsequent EIR with significant impacts [CEQA Guidelines Section 15162], pursuant to the South Coast AQMD's Certified Regulatory Program [CEQA Guidelines Section 15251(1)]; codified in South Coast AQMD Rule 110. The SEA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers, and the general public with information on the environmental impacts of the proposed project; and 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Thus, the South Coast AQMD, as lead agency for the proposed project, has prepared this SEA with significant impacts. In addition, since significant adverse impacts have been identified, an alternatives analysis is required and has been included in this SEA.

The Draft SEA ~~is being~~has been released and circulated for a 46-day public review and comment period from September 18, 2026 to November 3, 2026. ~~Any comments on the analysis presented in this Draft SEA received during the public comment period will be responded to and included in an appendix of the Final SEA.~~ No comment letters were received during the comment period.

The October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 (both with State Clearinghouse No. 2017081031) upon which this SEA relies, are incorporated by

reference pursuant to CEQA Guidelines Section 15150 and are available from the South Coast AQMD's website at:

October 2017 Final EA for Rule 1168

October 2017 Final EA for Rule 1168
http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/par1168FEA.pdf

Record of Approval/Approved Minutes for the October 6, 2017 South Coast AQMD Governing Board Meeting
https://www.aqmd.gov/docs/default-source/agendas/governing-board/2017/2017-nov3-001.pdf

Notice of Decision
https://www.aqmd.gov/docs/default-source/ceqa/notices/notices-of-decision-or-determination/2017/nodfor30dayea-1168-final.pdf

November 2022 Final SEA for Rule 1168

November 2022 Final SEA for Rule 1168
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/par-1168-final-sea.pdf

Findings and Statement of Overriding Considerations
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/par-1168-attachment1toresolution-rev1.pdf

Record of Approval/Approved Minutes for the November 4, 2022 South Coast AQMD Governing Board Meeting
https://www.aqmd.gov/docs/default-source/agendas/governing-board/2022/2022-dec2-002.pdf

Notice of Decision
https://www.aqmd.gov/docs/default-source/ceqa/notices/notices-of-decision-or-determination/2022/par-1168---adhesive-and-sealant-applications.pdf

The above documents may also be obtained from the South Coast AQMD's Public Information Center by calling (909) 396-2039 or by email PICrequests@aqmd.gov, or by contacting Lisa Tanaka - Deputy Executive Officer/Public Advisor, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765, (909) 396-2432, PublicAdvisor@aqmd.gov.

South Coast AQMD staff has reviewed the modifications made to PAR 1168 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the proposed project and was considerably different from others previously analyzed, and 4) the Draft SEA did not deprive the public from meaningful

review and comment. In addition, revisions to the proposed project and analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA.

Prior to making a decision on the adoption of the proposed project, the South Coast AQMD Governing Board must review and certify the Final SEA~~, including responses to comments,~~ as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1168.

1.2 PREVIOUS CEQA DOCUMENTATION

South Coast AQMD rules, as ongoing regulatory programs, have the potential to be revised over time due to a variety of factors (e.g., regulatory decisions by other agencies, new data, lack of progress in advancing the effectiveness of control technologies to comply with requirements in technology forcing rules, new more stringent national ambient air quality standards, etc.).

Rule 1168 was adopted in April 1989 to reduce VOC emissions from adhesive applications. The rule has been amended 15 times with the last two amendments in October 2017 and November 2022. PAR 1168 has been developed to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this SEA tiers off of the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, which are summarized in the following paragraphs.

Final Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications; October 2017: Amendments to Rule 1168 were adopted in October 2017 to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The amendments to Rule 1168 clarified the applicability; revised, deleted, and added various definitions; lowered the VOC limits for certain categories and allowed a three-year sell-through and use-through; added new product categories with corresponding VOC content limits; required products marketed for use under varying categories to be subject to the lowest VOC limit; prohibited the storage of non-compliant products, unless for shipment outside of the South Coast AQMD; added test methods for analyzing VOC content; added labeling requirements; included reporting requirements for manufacturers, private labelers, big box retailers, distribution centers, and facilities that use a 55 gallon per year exemption; prohibited the use of Rule 102 Group II exempt solvents, except volatile methyl siloxanes; included a technology assessment for certain product categories; and removed, modified, or added various exemptions. Approximately 1.38 tpd of VOC emission reductions were expected to be achieved as a result of implementing the October 2017 version of Rule 1168. While

the reduction of VOC emissions was expected to create an environmental benefit, the activities that manufacturers were expected to undertake to reformulate compliant products were anticipated to also create secondary adverse environmental impacts. The October 2017 Final EA for Rule 1168 analyzed the potential secondary adverse environmental impacts but none of the environmental topic areas analyzed were identified as having potentially significant adverse impacts. The South Coast AQMD Governing Board certified the Final EA and approved the amendments to Rule 1168 on October 6, 2017. The October 2017 Final EA for Rule 1168 can be obtained by visiting the South Coast AQMD website at: http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/par1168FEA.pdf.

Final Subsequent Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications; November 2022: Amendments to Rule 1168 were adopted in 2022 to prohibit the use of pCBtF and t-BAc in adhesives and sealants due to toxicity concerns; delay the effective dates of VOC emission limits or maintain the existing VOC emission limits for certain categories of adhesives and sealants; create additional subcategories of regulated products to better characterize and refine VOC emission limits; allow Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2 butene/HFO-1336mzz-Z) as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon an OEHHA evaluation; remove definitions; and update, clarify, and streamline rule language. The November 2022 Final SEA for Rule 1168 analyzed adverse environmental impacts associated with the 2022 version of Rule 1168 and concluded that while the 2022 amendments to Rule 1168 were expected to reduce the potential for toxic chemicals to be used in Rule 1168 Regulated Products, it was also expected to result in delayed and permanent foregone VOC emission reductions of 0.42 tpd and 0.28 tpd, respectively, due to extending the effective dates and maintaining the existing VOC limits for certain categories of adhesives and sealants. Accordingly, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would result in significant and unavoidable adverse air quality impacts during operation because the delayed and permanent forgone VOC emission reductions would exceed the South Coast AQMD's daily VOC operational significance threshold of 55 pounds per day. The South Coast AQMD Governing Board certified the Final SEA and approved the amendments to Rule 1168 on November 4, 2022. The November 2022 Final SEA for Rule 1168 can be obtained by visiting the South Coast AQMD website at: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/par-1168-final-sea.pdf.

1.3 INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency's decision-makers and the public generally of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project [CEQA Guidelines Section 15121]. A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this SEA is intended to: a) provide the South Coast AQMD Governing Board and the public with information on the environmental effects of the proposed project; and b) be used as a tool by the South Coast AQMD Governing Board to facilitate decision-making on the proposed project.

Additionally, CEQA Guidelines Section 15124(d)(1) requires a public agency to identify the following specific types of intended uses of a CEQA document:

1. A list of the agencies that are expected to use the SEA in their decision-making;
2. A list of permits and other approvals required to implement the project; and
3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

There are no permits or other approvals required to implement PAR 1168. Moreover, PAR 1168 is not subject to any other related environmental review or consultation requirements.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to projects that must comply with the requirements in the proposed project, they could possibly rely on this SEA during their decision-making process. Similarly, other single purpose public agencies approving projects at facilities complying with the proposed project may rely on this SEA.

1.4 AREAS OF CONTROVERSY

CEQA Guidelines Section 15123(b)(2) requires a public agency to identify the areas of controversy in the CEQA document, including issues raised by agencies and the public. Over the course of developing PAR 1168, the predominant concerns expressed by representatives of industry and environmental groups, either in public meetings or in written comments, regarding the proposed project are highlighted in Table 1-1.

Table 1-1
Area of Controversy

	Area of Controversy	Topics Raised by the Public	South Coast AQMD Evaluation
1.	Clear, Paintable, and Immediately Water-Resistant Sealants: Concern about ability and timing to achieve VOC content limit without pCBtF	Some manufacturers of Clear, Paintable, and Immediately Water-Resistant Sealants ~~containing pCBtF~~ have a VOC content of 250 grams per liter (g/L) or less. However, these manufacturers claim compliant reformulations without pCBtF cannot be achieved.	1) Replacement formulations of some Clear Paintable, and Immediately Water-Resistant Sealants are currently commercially available on the market that meet the 250 g/L VOC limit without containing pCBtF and some have a VOC content less than 50 g/L. 2) To provide manufacturer(s) sufficient time to ~~phase out pCBtF~~reformulate, PAR 1168 includes a provision which delays ~~implementation of the pCBtF prohibition~~ the 250 g/L VOC limit effective date by ~~two~~ three additional years (e.g., from January 1, 2026 to January 1, ~~2028~~2029) for this product category. ~~PAR 1168 also includes a two-year sell-through and a two-year use-through provision to prevent stranded assets and the generation of waste.~~

Pursuant to CEQA Guidelines Section 15131(a), "[e]conomic or social effects of a project shall not be treated as significant effects on the environment." CEQA Guidelines Section 15131(b)

states further, "[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project." Physical changes that may be caused by the proposed project have been evaluated in Chapter 4 of this ~~Draft~~ Final SEA. No direct or indirect physical changes resulting from economic or social effects have been identified as a result of implementing PAR 1168.

1.5 EXECUTIVE SUMMARY

CEQA Guidelines Section 15123 requires a CEQA document to include a brief summary of the proposed actions and their consequences. In addition, areas of controversy must also be included in the executive summary (see preceding discussion). This SEA consists of the following chapters: Chapter 1 – Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting; Chapter 4 –Environmental Impacts; Chapter 5 –Alternatives; Chapter 6 – References; Chapter 7 – Acronyms; and various appendices. The following subsections briefly summarize the contents of Chapters 1 through 5.

Summary of Chapter 1 – Executive Summary

Chapter 1 includes an introduction of the proposed project and a discussion of the legislative authority that allows the South Coast AQMD to amend and adopt air pollution control rules, identifies general CEQA requirements and the intended uses of this CEQA document, and summarizes the remaining four chapters that comprise this SEA.

Summary of Chapter 2 – Project Description

PAR 1168 proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. PAR 1168 is expected to result in delayed VOC emission reductions of 0.115 tpd from Top and Trim Adhesives until January 1, 2030; 0.020 tpd from Rubber Vulcanization Adhesives until January 1, 2029; and 0.011 tpd from Clear, Paintable, Immediately Water-Resistant Sealant until January 1, ~~2028~~2029. Extending the pCBtF prohibition date for Roof Adhesive Primers and Battery Adhesives would also delay the benefit of reducing the use of and exposure to pCBtF, a known carcinogen. Delaying the compliance dates in PAR 1168 for certain adhesives and sealants will benefit manufacturers by providing additional time to reformulate these products in response to the needs highlighted in the technology assessment while avoiding market disruptions and allowing temporary continued access to users of these commercially available products.

Summary of Chapter 3 – Existing Setting

Pursuant to CEQA Guidelines Section 15125, Chapter 3 – Existing Setting, includes a description of the existing environmental setting of the environmental topic area(s) that are expected to have potentially significant adverse impacts if the proposed project is implemented. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this ~~Draft~~ Final SEA for PAR 1168 tiers off of the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

The existing environmental setting is the physical environmental conditions as they existed at the time the Notice of Preparation (NOP) and Initial Study (IS) was published, or if no NOP/IS is published, at the time the environmental analysis is commenced [CEQA Guidelines Section 15125]. For the October 2017 amendments to Rule 1168, no NOP/IS was prepared; however, the environmental analysis commenced on August 16, 2017 when the Notice of Completion (NOC) announced the availability of the Draft EA for public review and comment. The Draft EA for the October 2017 amendments to Rule 1168 contained an environmental checklist, the same customized environmental checklist that South Coast AQMD uses when preparing a NOP/IS. The Draft EA for the October 2017 amendments to Rule 1168 also contained a detailed analysis of the environmental setting and corresponding environmental effects that were anticipated to occur as a result implementing the original project. The types of activities and associated environmental impacts from implementing both the original project in the October 2017 version of Rule 1168 (as previously analyzed in the October 2017 Final EA for Rule 1168), and the revised project in the November 2022 version of Rule 1168 (as previously analyzed in the November 2022 Final SEA for Rule 1168), were compared to the current project which comprises PAR 1168. The outcome of this comparison determined that the nature, type and extent of the physical changes that would be associated with PAR 1168 will have similar secondary adverse environmental impacts for the same environmental topic areas that were identified and previously analyzed in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

Specifically, the analysis in this SEA indicates that the air quality impacts from PAR 1168 will result in additional delayed VOC emission reductions, which will be more severe than what was previously contemplated in the October 2017 EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. In addition, extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives under PAR 1168 would delay the toxicity-related benefits associated with the requirement to phaseout pCBtF that was adopted in the November 2022 version of Rule 1168. Based on the preceding discussion, the baseline that was established for the original project at the time the NOC was published for the August 2017 Draft EA directly corresponds to the revised project analyzed in the November 2022 Final SEA for Rule 1168, and to the currently proposed project (PAR 1168) since the affected categories of coatings and adhesives, and the nature of the physical impacts that may occur as a result of implementing PAR 1168 are the same or similar to the original analysis in the October 2017 Final EA for Rule 1168 and the revised analysis in the November 2022 Final SEA for Rule 1168. Thus, the baseline for the analysis in this SEA is the project analyzed in the October 2017 Final EA for Rule 1168.

This SEA analyzes the incremental changes that may occur subsequent to the original project analyzed in the October 2017 Final EA and the revised project in the November 2022 Final SEA if PAR 1168 is implemented. In addition, the analysis in this SEA independently considered whether the proposed project would result in new significant impacts for any of the other environmental topic areas previously evaluated in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. Only the environmental topic area of air quality was

identified in both documents as having potentially significant adverse impacts. A description and the basis for this conclusion is included in Chapter 4 of this SEA.

As such, Chapter 3 of this ~~Draft~~ Final SEA contains a subchapter devoted to describing the existing setting for specific to air quality as this is the only environmental topic area identified as having potentially significant adverse environmental impacts if PAR 1168 is implemented.

Summary of Chapter 4 – Environmental Impacts

CEQA Guidelines Section 15126(a) requires a CEQA document to identify and focus on the "significant environmental effects of the proposed project." Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. In addition, CEQA Guidelines Section 15126(b) requires a CEQA document to identify the significant environmental effects that cannot be avoided if the proposed project is implemented. CEQA Guidelines Section 15126(c) also requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss mitigation measures proposed to minimize the significant effects. Finally, CEQA Guidelines Section 15130 requires a CEQA document to discuss whether the proposed project has cumulative impacts. Chapter 4 considers and discusses each of these requirements.

PAR 1168 has been developed to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this SEA for PAR 1168 tiers off of the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. As explained in the Summary of Chapter 3, the baseline for the analysis in this ~~draft~~ Final SEA is the project analyzed in the October 2017 Final EA for Rule 1168.

This SEA is a comprehensive environmental document that analyzes potential incremental environmental impacts from implementing the proposed project relative to the existing setting established in the October 2017 Final EA for Rule. The analysis examines the activities that manufacturers of adhesives and sealants would be expected to undertake to comply with PAR 1168.

Potential Environmental Impacts Found To Be Significant

This SEA tiers off of the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168. The October 2017 Final EA for Rule 1168 concluded that none of the environmental topic areas, including the topic of air quality and GHGs, would be significantly adversely affected by the anticipated reformulations of adhesive and sealant products via substituting certain

chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds.

The November 2022 Final SEA for Rule 1168 concluded significant and unavoidable operational air quality impacts from delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term which exceeded the South Coast AQMD air quality significance threshold for mass daily emissions of VOC. No feasible mitigation measures were identified that could lessen or avoid the potentially significant adverse air quality impacts.

The analysis in this SEA also independently considered whether PAR 1168 would result in new, significant impacts for any environmental topic areas previously evaluated in the October 2017 Final EA and November 2022 Final SEA for Rule 1168. Among the environmental topic areas examined for PAR 1168, only the topic of air quality was identified as having new significant impacts due to the potential for additional delayed VOC emission reductions, which will result in further delays in achieving the full amount of VOC emission reductions anticipated as part of the October 2017 version of PAR 1168 and that will be more severe than the delayed VOC emission reductions as a result of the November 2022 version of Rule 1168. A description and the basis for this conclusion is also included in this section of Chapter 4.

Under PAR 1168, the same VOC limits and pCBtF phaseout requirements presented in the November 2022 version of Rule 1168 would continue to apply, but the dates by which certain categories would be required to comply with those requirements would be extended. The November 2022 Final SEA for Rule 1168, using Quantity and Emission Report (QER) data from 2017 and 2018, originally estimated that the November 2022 version of Rule 1168 would result in delayed VOC emission reductions ranging from 0.42 tpd to 0.39 tpd from July 1, 2023 through January 1, 2028, depending on the product category. By extending the compliance deadlines for certain categories and using QER data from 2021 and 2022, PAR 1168 would result in delayed VOC emission reductions of: 1) 0.146 tpd through January 1, ~~2028~~ 2029 (a decrease compared to the 0.39 tpd previously expected up to January 1, 2028); ~~2) 0.135 tpd from January 1, 2028 through January 1, 2029;~~ and ~~3~~2) 0.115 tpd from January 1, 2029 through January 1, 2030 (See Table 4-2 for more detail). By coating category, PAR 1168 is expected to result in delayed VOC emission reductions of 0.115 tpd from Top and Trim Adhesives until January 1, 2030; 0.020 tpd from Rubber Vulcanization Adhesives until January 1, 2029; and 0.011 tpd from Clear, Paintable, Immediately Water-Resistant Sealant until January 1, ~~2028~~2029. Thus, compared to the November 2022 version of Rule 1168, PAR 1168 would extend the period during which VOC emission reductions are delayed by approximately two years. Therefore, the extended duration of delayed VOC emission reductions under PAR 1168 would result in a more severe operational air quality impact than what was analyzed in the November 2022 Final SEA for Rule 1168. Extending the pCBtF prohibition date for Roof Adhesive Primers and Battery Adhesives would also delay the benefit of reducing the use of and exposure to pCBtF, a known carcinogen.

As such, if PAR 1168 is implemented, significant and unavoidable adverse environmental impacts to the air quality during operation are expected to occur.

Potential Environmental Impacts Found Not To Be Significant

CEQA requires the SEA to identify the environmental topic areas that were analyzed and concluded to have no impacts or less than significant impacts if the proposed project is

implemented. For the environmental topic areas identified as having no impacts, CEQA Guidelines Section 15128 requires the analysis to contain a statement briefly indicating the reasons that various effects of a project were determined not to have significant impacts and were therefore not discussed in detail.

As explained earlier, the October 2017 Final EA for Rule 1168 concluded that all of the environmental topic areas, including the topic of air quality and GHGs, would have either less than significant impacts or no impacts. The November 2022 Final SEA for Rule 1168 independently considered the 2022 amendments to Rule 1168 and analyzed the incremental changes, if any, relative to the baseline, which was the project analyzed in the October 2017 Final EA for Rule 1168, to determine whether the previous conclusions of no impacts or less than significant impacts for all of the evaluated environmental topic areas in the October 2017 Final EA would change. The analysis in the November 2022 Final SEA for Rule 1168 concluded that the incremental changes associated with implementing the 2022 amendments to Rule 1168 were not expected to alter the previous conclusions of less than significant impacts or no impacts in the October 2017 Final EA for all environmental topic areas except the topic of air quality and GHGs. Unlike the October 2017 Final EA for Rule 1168, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts since the delayed and permanent VOC emission reductions foregone would exceed the South Coast AQMD air quality significance threshold for mass daily emissions of VOCs during operation. No feasible mitigation measures were identified that would reduce or avoid the significant air quality impacts to less than significant levels. It should be noted that two new environmental topic areas, tribal cultural resources and wildfires, were added to the CEQA Guidelines after the October 2017 Final EA for Rule 1168 was certified. However, the November 2022 Final SEA included analyses of these two additional environmental topic areas, and concluded that no impact would be expected to both tribal cultural resources and wildfires.

This subchapter of the SEA identifies and summarizes previously evaluated environmental topic areas in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, and assesses whether the conclusions for these environmental topic areas would need to be revised if PAR 1168 is implemented. The analysis of PAR 1168 in this SEA concluded either no impact or less than significant impact for each environmental topic area, except air quality during operation. Therefore, implementation of PAR 1168 will not change the previous conclusions reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 for these non-air quality environmental topic areas.

Other CEQA Topics

CEQA documents are also required to consider and discuss the potential for growth-inducing impacts [CEQA Guidelines Section 15126(d)] and to explain and make findings about the project's relationship between short-term and long-term environmental goals [CEQA Guidelines Section 15065(a)(2)]. Additional analysis in Chapter 4 confirms that PAR 1168 would not result in irreversible environmental changes or the irretrievable commitment of resources, foster economic or population growth, or the construction of additional housing. Further, implementation of PAR 1168 is not expected to achieve short-term goals to the disadvantage of long-term environmental goals.

Summary Chapter 5 - Alternatives

Since significant air quality impacts during operation are associated with PAR 1168, CEQA Guidelines Section 15126(e) requires the consideration and discussion of alternatives to the proposed project. The following alternatives to the proposed project were identified and summarized in Table 1-2: 1) Alternative A – No Project; 2) Alternative B – More Stringent Proposed Project; 3) and Alternative C – Less Stringent Proposed Project.

Pursuant to the requirements in CEQA Guidelines Section 15126.6(b) to mitigate or avoid the significant effects that a project may have on the environment, a comparison of the potentially significant adverse operational air quality impacts from each of the project alternatives for the individual rule components that comprise PAR 1168 is provided in Table 1-3. Aside from operational air quality impacts, no other potentially significant adverse impacts were identified for PAR 1168 or any of the project alternatives. The proposed project provides the best balance in achieving the project objectives while minimizing the significant adverse environmental impacts to operational air quality. Therefore, the proposed project is preferred over the project alternatives.

Table 1-2
Summary of the Proposed Project (PAR 1168) and Alternatives

Categories with Proposed Changes	Proposed Project (PAR 1168)	Alternative A: No Project*	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Top and Trim Adhesive	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2028 to 1/1/2030 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L	250 g/L VOC limit by 1/1/2028	250 g/L VOC limit by 1/1/2029 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L	250 g/L VOC limit by 1/1/2031 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L
Rubber Vulcanization Adhesive	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2028 to 1/1/2029	250 g/L VOC limit by 1/1/2028	250 g/L VOC limit by 7/1/2028	250 g/L VOC limit by 7/1/2029
Clear, Paintable, Immediately Water-Resistant Sealant	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2026 to 1/1/~~2028~~2029	250 g/L VOC limit by 1/1/2026	250 g/L VOC limit by 7/1/~~2027~~2028	250 g/L VOC limit by 7/1/~~2028~~2029
Roof Adhesive Primers	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L Extend pCBtF prohibition effective date from 1/1/2027 to 1/1/2030 Extend pCBtF sell-through end date from 1/1/2028 to 1/1/2031 Extend pCBtF use-through end date from 1/1/2028 to 1/1/~~2031~~2032	No change to existing 250 g/L VOC limit pCBtF prohibition effective date would be 1/1/2027 pCBtF sell-through end date would be 1/1/2028 pCBtF use-through end date would be 1/1/2028	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L pCBtF prohibition effective date would be 1/1/2029 pCBtF sell-through end date would be 1/1/2030 pCBtF use-through end date would be 1/1/~~2030~~2031	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L pCBtF prohibition effective date would be 1/1/2031 pCBtF sell-through end date would be 1/1/2032 pCBtF use-through end date would be 1/1/~~2032~~2033

*The No Project alternative means retaining the VOC limits and effective dates as established in the November 2022 version of Rule 1168.

Table 1-2 (concluded)
Summary of the Proposed Project (PAR 1168) and Alternatives

Categories with Proposed Changes	Proposed Project (PAR 1168)	Alternative A: No Project*	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Battery Adhesives (a new category, currently included under All Other Adhesives)	120 g/L VOC limit upon rule adoption	No change to existing 250 g/L VOC limit	120 g/L VOC limit upon rule adoption	120 g/L VOC limit upon rule adoption
	Extend pCBtF prohibition effective date from 1/1/2024 to 1/1/2029	pCBtF prohibition effective date would be 1/1/2024	pCBtF prohibition effective date would be 1/1/2028	pCBtF prohibition effective date would be 1/1/2030
	Extend pCBtF sell-through end date from 1/1/2027 to 1/1/2030	pCBtF sell-through end date would be 1/1/2027	pCBtF sell-through end date would be 1/1/2029	pCBtF sell-through end date would be 1/1/2031
	Extend pCBtF use-through end date from 1/1/2028 to 1/1/2031	pCBtF use-through end date would be 1/1/2028	pCBtF use-through end date would be 1/1/2030	pCBtF use-through end date would be 1/1/2032

*The No Project alternative means retaining the VOC limits and effective dates as established in the November 2022 version of Rule 1168.

Table 1-3
Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1168) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project (PAR 1168)	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Construction	**No Impacts** because no physical modifications involving construction are expected	**No Impacts** Same as Proposed Project	**No Impacts** Same as Proposed Project	**No Impacts** Same as Proposed Project
GHGs	**Less than Significant Impacts** because the type of chemicals used for reformulating compliant products are not known to contain any GHG compounds and any future reformulation with GHG compounds would not be expected to occur	**Less than Significant Impacts** Same as Proposed Project	**Less than Significant Impacts** Same as Proposed Project	**Less than Significant Impacts** Same as Proposed Project
Operation – VOC Emissions	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 1/1/~~2028~~2029; ~~0.135 tpd from 1/1/2028 through 1/1/2029~~ and 0.115 tpd from 1/1/2029 through 1/1/2030: a) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 1/1/~~2028~~2029 b) Rubber Vulcanization Adhesive - 0.02 tpd until 1/1/2029 c) Top and Trim Adhesive - 0.115 tpd until 1/1/2030	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.39 tpd through 1/1/2028 from: a) Rubber Vulcanization Adhesive - 0.29 tpd until 1/1/2028 b) Top and Trim Adhesive - 0.1 tpd until 1/1/2028	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 7/1/~~2027~~2028; ~~0.135 tpd from 7/1/2027 through 7/1/2028~~ and 0.115 tpd from 7/1/2028 through 1/1/2029: a) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 7/1/~~2027~~ 2028 b) Rubber Vulcanization Adhesive - 0.0.02 tpd until 7/1/2028 c) Top and Trim Adhesive - 0.115 tpd until 1/1/2029	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 7/1/~~2028~~2029; ~~0.135 tpd from 7/1/2028 through 7/1/2029~~ and 0.115 tpd from 7/1/2029 through 1/1/2031: a) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 7/1/~~2028~~2029 b) Rubber Vulcanization Adhesive - 0.02 tpd until 7/1/2029 c) Top and Trim Adhesive - 0.115 tpd until 1/1/2031

Table 1-3 (concluded)
Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1168) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project (PAR 1168)	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Operation – Toxicity	**Less than Significant Toxicity Impacts** because although PAR 1168 would delay the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives, the t-BAc and pCBtF phaseout requirements established in the November 2022 version of Rule 1168 would remain in place and continue to apply under PAR 1168, with only the applicable phaseout dates for Roof Adhesive Primers and Battery Adhesives being extended. No other changes affecting toxic air contaminants are expected.	**Less than Significant Toxicity Impacts** because the t-BAc and pCBtF phaseout requirements, including the applicable prohibition effective dates, sell-through end dates, and use-through end dates established in the November 2022 version of Rule 1168, would remain unchanged.	**Less than Significant Toxicity Impacts** - Same as Proposed Project**.**	**Less than Significant Toxicity Impacts** - Same as Proposed Project**.**
Operation – Odor Nuisance	**Less than Significant Odor Nuisance Impacts** because PAR 1168 would not change the types of adhesives and sealants subject to Rule 1168 or the manufacturing processes and types of chemicals used and, therefore, would not result in new or different sources of odor.	**Less than Significant Odor Nuisance Impacts** - Same as Proposed Project**.**	**Less than Significant odor nuisance impacts** - Same as Proposed Project**.**	**Less than Significant odor nuisance impacts** - Same as Proposed Project**.**

Summary Chapter 6 - References

This chapter contains a list of the references, and the organizations and people consulted for the preparation of this SEA.

Summary Chapter 7 - Acronyms

This chapter contains a list of the acronyms that were used throughout the SEA and the corresponding definitions.

Appendix A

This appendix contains the latest version of PAR 1168.

CHAPTER 2

PROJECT DESCRIPTION

Project Location

Project Background

Project Objectives

Project Description

Summary of Affected Adhesive and Sealant Categories

Technology Overview

2.1 PROJECT LOCATION

The South Coast AQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin), the Riverside County portion of the Salton Sea Air Basin (SSAB) and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin (MDAB). The Basin, a subarea of South Coast AQMD's jurisdiction, is bounded by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 2-1).

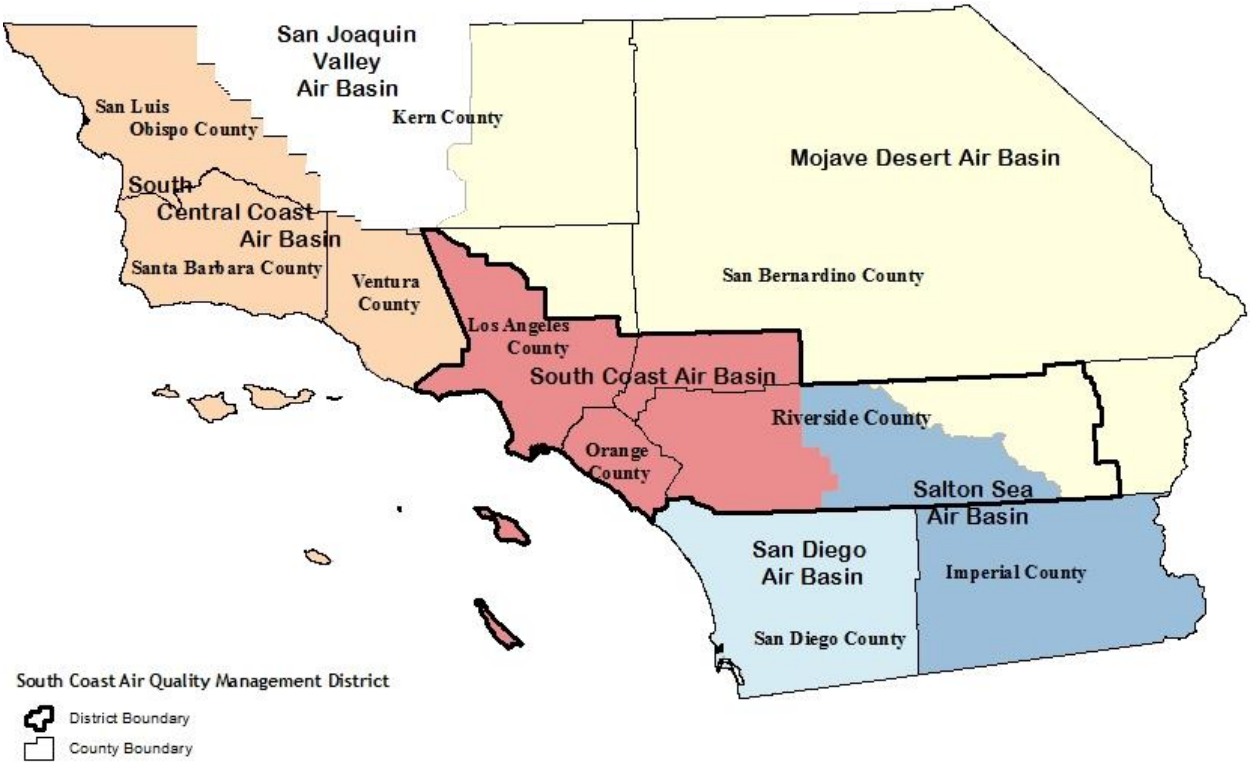

Figure 2-1
Southern California Air Basins and South Coast AQMD's Jurisdiction

2.2 PROJECT BACKGROUND

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 CARB's CPR. Currently, there are VOC limits established for 69 categories of adhesives, adhesive primers, sealants, and sealant primers.

The November 2022 amendment to Rule 1168 prohibited the use of pCBtF and t-BAc due to being identified as having toxic endpoints by the Office of Environmental Health Hazard Assessment (OEHHA). The November 2022 amendment also required a technical assessment to assess pCBtF and t-BAc reformulation progress. The technical assessment revealed that reformulation efforts were successful for all categories except roofing adhesive primers. Through extensive discussions with stakeholders, South Coast AQMD staff determined that certain roofing product categories would require additional time to transition to formulations that do not rely on either exempt compound, and that a rule amendment was necessary to address reformulation challenges for the pCBtF phase out from roof adhesive primers.

2.3 PROJECT OBJECTIVES

The main objectives of PAR 1168 are to: 1) reduce VOC emissions from adhesives and sealants by establishing technologically feasible effective dates for compliance with the VOC limits established in the November 2022 version of Rule 1168; and 2) reduce potential exposure to pCBtF and t-BAc by establishing technologically feasible prohibition, sell-through, and use-through dates for products subject to Rule 1168.

2.4 PROJECT DESCRIPTION

PAR 1168 seeks to extend the pCBtF prohibition date for roofing adhesive primers to allow additional time for reformulation; postpone upcoming VOC limits for two adhesive categories and one sealant category to provide more time for product reformulation; establish equivalent alternative reactivity-based limits for ~~two~~three categories; remove the exemption permitting facilities to use up to 55 gallons of non-compliant products per year; require manufacturers to annually submit a list of their distributors; shift distributor reporting requirements to recordkeeping; introduce a new category for battery adhesives with an extended pCBtF phase-out period; and incorporate clarifications and updates to definitions and cross-references to maintain consistency with other South Coast AQMD rules.

As such, the following is a summary of the amendments which comprise PAR 1168. Appendix A of this SEA contains a copy of PAR 1168.

Definitions [Subdivision (c)]
PAR 1168 contains the following key new and modified definitions.[9]

The definition for battery adhesive was added to provide clarification for the newly added category to address the 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 Products are sold or supplied for the purposes of resale or distribution ~~in commerce~~ into or within the South Coast AQMD, except that Manufacturers~~, Retail Outlets, and consumers~~ are not Distributors."

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."

[9] For all definitions referred to in the Draft SEA, please see the preliminary draft of PAR 1168 released with the Preliminary Draft Staff Report on September 18, 2026 which are available from the South Coast AQMD webpage for the development of PAR 1168 at: https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1168

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. ~~If the label lists two or more Manufacturers, they may mutually designate in writing a Manufacturer responsible for compliance with this rule. That writing shall be filed with the Executive Officer.~~"

The definitions for maximum incremental reactivity (MIR) and 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 ~~are~~is sold, supplied, or offered for sale directly to ~~consumers~~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 to provide 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 on January 1, 2023 for 11 subcategories. Staff is also proposing to provide additional time and extend the lower VOC limit effective dates for the following three categories:

- Top and Trim Adhesive
- Clear, Paintable, and Immediately Water-Resistant
- Rubber Vulcanization Adhesive

A new product category for battery adhesive was added to Table 1 of the rule to address reformulation, testing, and recertification concerns related to aerospace battery manufacturing. 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. Annual volume for this category is low at approximately 1,800 gallons per year. 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).

Table 2-1 provides a summary of the proposed changes and updates to Table 1 in Rule 1168. Additionally, staff is proposing an alternative PW-MIR limit to paragraph (d)(2) for ~~two~~ three ~~adhesive~~ categories, roof adhesive primers ~~and~~, top and trim adhesives, and all other adhesive primers to address potential reformulation challenges for the ~~two~~ three categories. The alternative PW-MIR limits are equivalent to the current mass-based limits for the respective category. Please see Table 2-2 below for a summary of the proposed PW-MIR limits.

Table 2-1
Summary of Proposed Changes and Updates to Table 1 in Rule 1168

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	400 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/~~2028~~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

Table 2-2
Summary of Alternative PW-MIR limits

Category	PW-MIR Limit (g O3/g Product)
Roof Adhesive Primer	0.65
Top and Trim Adhesive	0.60
All Other Adhesive Primer	0.65

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 the 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 to the South Coast AQMD upon request. Big ~~b~~Box retailers are ~~now~~still required to report volume sold to the manufacturers and to South Coast AQMD~~;~~. To avoid further confusion of reporting requirements between responsible parties, staff clarified and added ~~the~~ several definitions ~~of distributor~~ in subdivision (c) - definitions section of the rule.

The 55-gallon exemption in paragraph (e)(6) will be phased out beginning January 1, ~~2028~~2029. ~~to align with the next upcoming reporting cycle in 2028.~~ Paragraph (e)(6) now establishes that the 55-gallon exemption is now valid through calendar year ~~2027~~2028. Beginning January 1, ~~2028~~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, ~~2028~~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, ~~2028~~2029.

Subparagraph (e)(1)(G) was revised to clarify that manufacturers and private labelers must now report the total annual quantity of each product sold and "distributed" within the South Coast AQMD not just products sold by the man. 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 with distributors.

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 their product to. 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 of non-compliant products. 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)(~~9~~)(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 three 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.

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)(~~4~~)(5) has been updated and now only requires only big box retailers to submit QERs. Distributors are only required to maintain records and be made available upon request. However, the QERs must now be submitted to the manufacturer or private labeler and South Coast AQMD and not just the manufacturer or private labeler.

Table 2-3 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 2-3
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)]
No major changes are proposed to this provision. The changes are merely to correct test method names and description.

Administrative Requirements [Subdivision (g)]
Paragraph (g)(10) 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 ~~and use-through dates~~ 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 probation for battery adhesive is to provide additional reformulation time for the category. 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 dimethyl carbonate (DMC) in concentrations greater than 0.01 percent by weight or VMS in concentrations greater than ~~0.1~~1.0 percent by weight.

The prohibition effective dates based on the product categories are presented in Table 2-4.

Table 2-4
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, ~~2031~~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)]
Facilities no longer use the exemption in subparagraph (j)(5)(c) and no annual reports have been received from facilities utilizing this exemption. The amendment, paragraph (j)(11) clarifies that the small-usage exemption applies only until January 1, 2028 and requires facilities using less than 55 gallons of noncompliant product per year to comply with paragraph (e)(6) reporting and

recordkeeping requirements. The update also maintains the prohibition on using this exemption for specified high-VOC adhesive categories, ensuring consistency with paragraph (d)(1). Paragraph (j)(10) requires any manufacturer or private labeler utilizing this exemption to comply with the new reporting requirements specified in subparagraph (e)(7)(B).

2.5 Summary of Affected Adhesive and Sealant Categories

The following categories will be impacted in this rule amendment: 1) Roof Adhesive Primer; 2) Top and Trim Adhesive; 3) Rubber Vulcanization Adhesive; 4) Clear, Paintable, and Immediately Water-Resistant Sealant. Table 2-5 provides a summary of the affected categories and the proposed timelines.

Table 2-5
Adhesive and Sealant Categories Affected by PAR 1168 and Summary of Timelines

Category	Proposed Effective Date
Clear, Paintable, and Immediately Water-Resistant Sealant	January 1, ~~2028~~2029
Rubber Vulcanization Adhesives	January 1, 2029
Top and Trim Adhesives	January 1, 2030
Roof Adhesive Primers	January 1, 2030

2.6 TECHNOLOGY OVERVIEW

Compliance with PAR 1168 is expected to be achieved by manufacturers reformulating Regulated Products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The manufacturers will have flexibility to use any compliant alternative reformulation in order for their product to meet the VOC limits in PAR 1168. Physical modifications to or new installations of manufacturing equipment, including the installation of control equipment, would not be expected to be needed in order to reformulate products. For certain categories, there are existing products that meet the proposed lower VOC content limits, so reformulation is practicable. Finally, end-users can comply with the rule using alternative options such as control devices, emission collection systems; or an Alternative Emission Control Plan.

CHAPTER 3

EXISTING SETTING

Introduction

Existing Setting

Air Quality and Greenhouse Gas Emissions

- **Criteria Air Pollutants**
- **Greenhouse Gas Emissions**

3.0 INTRODUCTION

To determine the significance of the impacts associated with a proposed project, it is necessary to evaluate the proposed project's impacts against the backdrop of the environment as it exists at the time the environmental analysis is commenced. CEQA Guidelines Section 15360 defines environment as "the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance." [*See also* Public Resources Code Section 21060.5]. Furthermore, a CEQA document must include a description of the physical environment in the vicinity of the proposed project, as it exists at the time the environmental analysis is commenced, from both a local and regional perspective. [CEQA Guidelines Section 15125]. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives.

The existing setting is the physical environmental conditions as they existed at the time the NOP was published, or if no NOP is published, at the time the environmental analysis is commenced. [CEQA Guidelines Section 15125].

3.1 EXISTING SETTING

The proposed project is comprised of PAR 1168, which has been developed to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, the proposed project is designed to amend and tier off of the previous CEQA assessments conducted in the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168, which were certified by the South Coast AQMD Governing Board on October 6, 2017, and November 4, 2022, respectively.

The October 2017 amendments to Rule 1168 were adopted with the goal of reducing emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The October 2017 version of Rule 1168 clarified the applicability; revised, deleted, and added various definitions; lowered the VOC limits for certain categories and allowed a three-year sell-through and use-through; added new product categories with corresponding VOC content limits; required products marketed for use under varying categories to be subject to the lowest VOC limit; prohibited the storage of non-compliant products, unless for shipment outside of the South Coast AQMD; added test methods for analyzing VOC content; added labeling requirements; included reporting requirements for manufacturers, private labelers, big box retailers, distribution centers, and facilities that use a 55-gallon-per-year

exemption; prohibited the use of Rule 102 Group II exempt solvents, except VMS; included a technology assessment for certain product categories; and removed, modified, or added various exemptions. The October 2017 version of Rule 1168 estimated VOC emission reductions of approximately 1.38 tpd.

While the estimated reduction of VOC emissions from the October 2017 amendments to Rule 1168 were expected to create an environmental benefit, the October 2017 Final EA for Rule 1168, which is the certified regulatory program equivalent to a Negative Declaration under CEQA, analyzed the environmental impacts associated with the activities manufacturers were anticipated to undertake to reformulate products and that these reformulation activities could create secondary adverse environmental impacts. However, none of the environmental topic areas previously analyzed in the October 2017 Final EA for Rule 1168 were concluded to have significant and unavoidable impacts, including the topic of air quality and GHGs.

The 2022 amendments to Rule 1168: 1) prohibited the use of pCBtF and t-BAc due to toxicity concerns; 2) delayed the effective dates of VOC emission limits or maintain the existing VOC emission limits for certain categories of adhesives and sealants; 3) created additional subcategories of Regulated Products to better characterize and refine VOC emission limits; 4) allowed Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) removed definitions and updated, clarified, and streamlined the rule language.

Environmental impacts associated with the 2022 version of Rule 1168 were analyzed in the November 2022 Final SEA for Rule 1168. The types of activities and associated environmental impacts with implementing the VOC limits and compliance dates subject to the October 2017 Rule 1168 amendments were compared to the November 2022 version of Rule 1168; the November 2022 Final SEA for Rule 1168 concluded that the type and extent of the anticipated physical changes would be similar and would cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the October 2017 Final EA for Rule 1168 except for the topic of air quality and GHG emissions. Specifically, the November 2022 Final SEA for Rule 1168 concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts due to delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term. No feasible mitigation measures were identified that would avoid or lessen these significant air quality impacts.

CEQA Guidelines Section 15125 defines the existing setting as the physical environmental conditions as they existed at the time the NOP was published, or if no NOP is published, at the time the environmental analysis is commenced. For the October 2017 amendments to Rule 1168, no NOP/IS was prepared; however, the environmental analysis commenced on August 16, 2017 when the Notice of Completion (NOC) announced the availability of the Draft EA for public review and comment. The Draft EA for the October 2017 amendments to Rule 1168 contained an environmental checklist, the same customized environmental checklist that South Coast AQMD uses when preparing a NOP/IS. The Draft EA for the October 2017 amendments to Rule 1168 also contained a detailed analysis of the environmental setting and corresponding environmental effects that were anticipated to occur as a result implementing the original project.

The types of activities and associated environmental impacts from implementing both the original project in the October 2017 version of Rule 1168 (as previously analyzed in the October 2017 Final EA for Rule 1168), and the revised project in the November 2022 version of Rule 1168 (as previously analyzed in the November 2022 Final SEA for Rule 1168), were compared to the current project which comprises PAR 1168. The outcome of this comparison determined that the nature, type, and extent of the physical changes that would be associated with PAR 1168 will have similar secondary adverse environmental impacts for the same environmental topic areas that were identified and previously analyzed in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

Specifically, the analysis in this SEA indicates that the air quality impacts from PAR 1168 will result in additional delayed VOC emission reductions, which will be more severe than what was previously contemplated in the October 2017 EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. In addition, extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives under PAR 1168 would delay the toxicity-related benefits associated with the requirement to phaseout pCBtF that was adopted in the November 2022 version of Rule 1168. Based on the preceding discussion, the baseline that was established for the original project at the time the NOC was published for the August 2017 Draft EA directly corresponds to the revised project analyzed in the November 2022 Final SEA for Rule 1168, and to the currently proposed project (PAR 1168) since the affected categories of coatings and adhesives, and the nature of the physical impacts that may occur as a result of implementing PAR 1168 are the same or similar to the original analysis in the October 2017 Final EA for Rule 1168 and the revised analysis in the November 2022 Final SEA for Rule 1168. Thus, the baseline for the analysis in this SEA is the project analyzed in the October 2017 Final EA for Rule 1168.

This SEA analyzes the incremental changes that may occur subsequent to the original project analyzed in the October 2017 Final EA and the revised project in the November 2022 Final SEA if PAR 1168 is implemented. In addition, the analysis in this SEA independently considered whether the proposed project would result in new significant impacts for any of the other environmental topic areas previously evaluated in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. Only the environmental topic area of air quality was identified in both documents as having potentially significant adverse impacts. A description and the basis for this conclusion is included in Chapter 4 of this SEA. As such, the following subchapter is devoted to describing the regional existing setting for the air quality which was the only environmental topic area identified as having potentially significant adverse environmental impacts if PAR 1168 is implemented.

3.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Ambient air quality standards have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of toxic air contaminants and GHG emissions. Projects within South Coast AQMD's jurisdiction are subject to the rules and regulations imposed by the South Coast AQMD as well as regulations adopted by CARB and U.S. EPA. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

3.2.1 CRITERIA AIR POLLUTANTS

South Coast AQMD has the responsibility to ensure that state and federal ambient air quality standards (AAQS or standards) are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter (PM, which includes PM10 and PM2.5), sulfur dioxide (SO2), and lead (Pb). These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are sometimes more stringent than the federal standards, and in the case of PM10 and SO2, far more stringent. However, for ozone, the current 8-hour California Ambient Air Quality Standard (CAAQS) and the 2015 8-hour National Ambient Air Quality Standard (NAAQS) are at an equivalent level and for PM2.5, the current annual CAAQS ~~and the 2012~~is at a higher level than the 2024 annual NAAQS~~ are also at an equivalent level~~. As a result, the South Coast AQMD relies on the same measures to meet both federal and state ozone and PM2.5 standards. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and federal standards for each of these pollutants and their effects on health are summarized in Table 3-1.

South Coast AQMD monitors levels of various criteria pollutants at ~~38 ~~monitoring stations throughout the jurisdiction. The 2025 air quality data (the latest data available) from South Coast AQMDs monitoring stations are presented in Tables 3-2 through 3-8 for the individual criteria air pollutants monitored by South Coast AQMD.

Table 3-1
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard[a]	Federal Primary Standard	Most Relevant Effects
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	0.12 ppm	(a) Short-term exposures: 1) Pulmonary function decrements and localized lung edema in humans and animals; and 2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; and (d) Property damage.
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Suspended Particulate Matter (PM10)	24-hour	50 µg/m^3	150 µg/m^3	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; and (b) Excess seasonal declines in pulmonary function, especially in children.
	Annual Arithmetic Mean	20 µg/m^3	No Federal Standard	
Suspended Particulate Matter (PM2.5)	24-hour	No State Standard	35 µg/m^3	(a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decreased lung functions and premature death.
	Annual Arithmetic Mean	12 µg/m^3	~~12~~ 9 µg/m^3	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
	8-Hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	

Table 3-1 (concluded)
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard[a]	Federal Primary Standard	Most Relevant Effects
Nitrogen Dioxide (NO_2)	1-Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	
Sulfur Dioxide (SO_2)	1-Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	Broncho-constriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	24-Hour	0.04 ppm (105 µg/m^3)	No Federal Standard	
Sulfates	24-Hour	25 µg/m^3	No Federal Standard	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Hydrogen Sulfide (H_2S)	1-Hour	0.03 ppm (42 µg/m^3)	No Federal Standard	Odor annoyance.
Lead (Pb)	30-Day Average	1.5 µg/m^3	No Federal Standard	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction.
	Calendar Quarter	No State Standard	1.5 µg/m^3	
	Rolling 3-Month Average	No State Standard	0.15 µg/m^3	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standard	The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. This is a visibility-based standard not a health-based standard. Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent.
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m^3)	No Federal Standard	Highly toxic and a known carcinogen that causes a rare cancer of the liver.

ppb = Parts Per Billion parts of air, by volume
ppm = Parts Per Million parts of air, by volume
µg/m3 = micrograms per cubic meter
mg/m3 = milligrams per cubic meter

[a] The California ambient air quality standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM10, and PM2.5 are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

Carbon Monoxide

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern its transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. Higher concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport, combining with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes. Reductions in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include preterm births and heart abnormalities.[10,11,12]

On August 12, 2011, U.S. EPA issued a decision to retain the existing NAAQS for CO, determining that those standards provided the required level of public health protection. However, U.S. EPA added a requirement for near-road CO monitoring in urban areas with population of one million or more, using stations established to meet the 2010 near-road NO_2 monitoring requirements. The two ~~new~~ CO monitors are at the I-5 near-road site, located in Orange County near Anaheim, and the I-10 near-road site, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

As summarized in Table 3-2, CO concentrations were measured at 18 locations in the South Coast Air Basin and neighboring Salton Sea Air Basin in 2025 but did not exceed the state or federal standards in 2025. The highest 1-hour average CO concentration recorded was 10.1 parts per million (ppm) at the West San Gabriel Valley station, less than the federal and state 1-hour CO standards of 35 ppm and 20 ppm, respectively. The highest 8-hour average CO concentration recorded was 5.6 ppm at the West San Gabriel Valley station, less than the federal and state 8-hour CO standards of 9.0 ppm. All areas within the South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour and 8-hour CO standards.

[10] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.

[11] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.

[12] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

Table 3-2
South Coast AQMD – 2025 Air Quality Data – CO[13]

CARBON MONOXIDE (CO)[a]				
Source Receptor Area No.	**Location of Air Monitoring Station**	**No. Days of Data**	**Max. Conc. 1-Hour in ppm**	**Max. Conc. 8-hour in ppm**
LOS ANGELES COUNTY				
1	Central Los Angeles	348	2.5	2.0
6	West San Fernando Valley	354	2.3	1.9
8	West San Gabriel Valley	361	10.1	5.6
9	East San Gabriel Valley 2	361	1.1	1.0
10	Pomona/Walnut Valley	363	1.6	1.2
11	South San Gabriel Valley	359	2.3	1.8
12	South Central Los Angeles County	358	5.3	3.2
13	Santa Clarita Valley	358	1.1	0.8
ORANGE COUNTY				
16	North Orange County	357	2.0	1.2
17	Central Orange County	361	1.8	1.6
17	I-5 Near Road##	348	2.1	1.7
RIVERSIDE COUNTY				
23	Metropolitan Riverside County 1	364	2.1	1.4
23	Metropolitan Riverside County 3	358	2.3	2.2
25	Lake Elsinore Area	356	1.0	0.7
30	Coachella Valley 1**	360	1.4	0.5
SAN BERNARDINO COUNTY				
33	I-10 Near Road##	358	1.4	1.3
34	Central San Bernardino Valley 1	358	1.6	1.2
34	Central San Bernardino Valley 2	346	2.1	1.7
DISTRICT MAXIMUM[(b)]			**10.1**	**5.6**
SOUTH COAST AIR BASIN[(c)]			**10.1**	**5.6**

ppm = Parts Per Million in air, by volume

**Salton Sea Air Basin , Coachella Valley 2 is closed and operations have moved to Coachella Valley 4

Four near-road sites measuring one or more of the pollutants $PM_{2.5}$, CO, and/or NO_2 are operating near the following freeways: I-5, I-10, CA-60, and I-710.

a The federal and state 8-hour CO standards (9 ppm and 9.0 ppm, respectively) along with the federal and state 1-hour CO standards (35 ppm and 20 ppm, respectively) were not exceeded.

b District Maximum is the maximum value calculated at any one station in the South Coast AQMD jurisdiction.

c Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin

[13] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Ozone

Ozone (O_3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Stratospheric ozone partially mixes downward through the troposphere to the earth's surface; however, the extent of ozone transport in the South Coast AQMD jurisdiction is limited. On the earth's surface, ozone concentrations are normally ~~measured~~ very low at the sites remote from urban areas (e.g., from 0.03 ppm to 0.05 ppm).

Ozone is highly reactive with organic materials, causing damage to living cells. Ambient ozone concentrations in the Basin are frequently sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. Individuals exercising outdoors, children, and people with preexisting lung disease such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups to ozone harmful exposure impacts. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in changes to breathing pattern, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. Studies show an increased risk for asthma in children who live in high ozone communities and participate in multiple outdoor sports. Elevated ozone levels are also correlated with increased school absences. Ozone exposure under exercising conditions is correlated with increase in the severity of the previously mentioned observed conditions. Animal studies suggest that exposures to a combination of pollutants which include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures to ozone, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.[14,15,16]

As summarized in Table 3-3, O_3 concentrations were measured at 24 locations in the South Coast Air Basin and the Coachella Valley portion of the Salton Sea Air Basin in 2025. Maximum ozone concentrations for all areas monitored were below the stage 1 episode level (0.20 ppm) and below the health advisory level (0.15 ppm). All counties in the Basin, as well as the Coachella Valley, exceeded the level of the 2015 federal 8-hour O_3 standard (0.070 ppm), the state 1-hour O_3 standard (0.09 ppm), and the state 8-hour O_3 standard (0.070 ppm) in 2025. All but four monitoring stations (i.e., Northwest Coastal Los Angeles County station, South Coastal Los Angeles County station, Central Orange County station, and Temecula Valley station) exceeded the former 2008 federal 8-hour O_3 standard (0.075 ppm).

Maximum 1-hour average and 4th highest 8-hour average ozone concentrations were 0.130 ppm and 0.103 ppm, respectively (at the Central San Bernardino Valley 2 station and Central San Bernardino Mountains station, respectively), which are greater than the federal 1-hour and 8-hour ozone NAAQS of 0.12 ppm and 0.070 ppm, respectively. The federal 8-hour standard is met at an air quality monitor when the 3-year average of the annual fourth-highest daily maximum 8-hour average is less than 0.070 ppm. The maximum 1-hour concentration also exceeded the state 1-hour ozone standard of 0.09 ppm. All areas within South Coast AQMD's jurisdiction are in

[14] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.

[15] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.

[16] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

nonattainment for both the federal and state 1-hour and 8-hour ozone standards with the exception of Coachella Valley being in attainment for the 1979 1-hour ozone standard.

Table 3-3
South Coast AQMD – 2025 Air Quality Data – O_3[17]

OZONE (O_3)[(a)]										
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. 1-hr Conc. in ppm	Max. 8-hr Conc. in ppm	4th High 8-hr Conc. ppm	No. Days Standard Exceeded				
						Federal (ppm)			State (ppm)	
						Old 1-hr > 0.12 ppm	Current 8-hr > 0.070 ppm	2008 8-hr > 0.075 ppm	Current 1-hr > 0.09 ppm	Current 8-hr > 0.070 ppm
LOS ANGELES COUNTY										
1	Central Los Angeles	340	0.116	0.084	0.072	0	6	2	2	6
2	Northwest Coastal LA County	359	0.086	0.070	0.059	0	0	0	0	0
4	South Coastal LA County 4	344	0.092	0.069	0.062	0	0	0	0	0
6	West San Fernando Valley	347	0.115	0.086	0.080	0	19	7	6	22
7	East San Fernando Valley	352	0.103	0.081	0.077	0	17	6	5	19
8	West San Gabriel Valley	341	0.108	0.084	0.083	0	20	9	11	20
9	East San Gabriel Valley 2	355	0.129	0.099	0.094	2	64	42	38	67
10	Pomona/Walnut Valley	353	0.126	0.099	0.092	1	44	25	22	48
11	South San Gabriel Valley	344	0.120	0.089	0.076	0	12	4	6	12
12	South Central Los Angeles County	345	0.093	0.076	0.065	0	1	1	0	1
13	Santa Clarita Valley	353	0.126	0.106	0.094	1	66	49	27	68
ORANGE COUNTY										
16	North Orange County	351	0.112	0.089	0.074	0	7	2	3	7
17	Central Orange County	347	0.093	0.069	0.059	0	0	0	0	0
RIVERSIDE COUNTY										
23	Metropolitan Riverside County 1	355	0.115	0.097	0.088	0	60	38	21	64
23	Metropolitan Riverside County 3	352	0.113	0.093	0.087	0	38	26	13	40
25	Lake Elsinore Area	348	0.108	0.089	0.078	0	17	11	4	19
26	Temecula Valley	350	0.078	0.065	0.064	0	0	0	0	0
29	Banning/San Gorgonio Pass	359	0.129	0.103	0.090	1	53	40	25	54
30	Coachella Valley 1**	356	0.105	0.092	0.085	0	43	22	5	46
30	Coachella Valley 4**	357	0.089	0.081	0.077	0	24	9	0	29
SAN BERNARDINO COUNTY										
34	Central San Bernardino Valley 1	349	0.123	0.106	0.095	0	70	48	29	72
34	Central San Bernardino Valley 2	338	0.130	0.107	0.102	2	82	68	45	84
35	East San Bernardino Valley	358	0.126	0.105	0.102	1	85	66	41	85
37	Central San Bernardino Mountains	357	0.127	0.112	0.103	1	90	73	41	91
DISTRICT MAXIMUM[(b)]			**0.130**	**0.112**	**0.103**	**2**	**90**	**73**	**45**	**91**
SOUTH COAST AIR BASIN[(c)]			**0.130**	**0.112**	**0.103**	**4**	**108**	**87**	**73**	**111**

ppm = Parts Per Million in air, by volume
**Salton Sea Air Basin, Coachella Valley 2 is closed and operations have moved to Coachella Valley 4

a The current (2015) O3 federal standard became effective December 28, 2015.
b District Maximum is the maximum value calculated at any one station in the South Coast AQMD jurisdiction.
c Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

[17] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Nitrogen Dioxide

NO_2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and high pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NOx. In the presence of sunlight, NO_2 reacts to form nitric oxide and an atom of oxygen. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO_3) which reacts further to form nitrates, which are components of PM2.5 and PM10.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is ~~correlated~~ associated with long-term exposures to NO_2 at levels found in homes equipped with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. ~~Increase~~ Larger decreases in ~~the~~ lung function~~s failure is~~are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of such subgroups. More recent studies have found associations~~correlations~~ between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms, and emergency room asthma visits. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations resulted in increased susceptibility to infections, possibly due to the impact on the cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO_2.[18,19,20]

With the revised NO_2 federal standard in 2010, near-road NO_2 measurements were required to be phased in for larger cities. The four near-road monitoring stations are: 1) I-5 near-road, located in Orange County near Anaheim; 2) I-710 near-road, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; 3) State Route 60 (SR-60 or CA-60) near-road, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland; and 4) I-10 near-road, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

As summarized in Table 3-4, NO_2 concentrations were measured at 24 locations in the South Coast Air Basin and neighboring Salton Sea Air Basin in 2025 with no station exceeding the federal 1-hour standard (i.e., 100 ppb) in 2025. The highest annual average NO_2 concentration recorded was 24.7 ppb (at the I-10 Near Road station), which is less than the federal and state annual NO_2 standards of 53 ppb and 30 ppb, respectively. All areas within South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour as well as the annual NO_2 standard.

[18] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.

[19] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.

[20] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

Table 3-4
South Coast AQMD – 2025 Air Quality Data – NO_2[21]

NITROGEN DIOXIDE (NO_2)[a]					
Source Receptor Area No.	**Location of Air Monitoring Station**	**No. Days of Data**	**Max. 1-Hour Conc. in ppb**	**98th Percentile 1-Hour Conc. in ppb**	**Annual Average (AAM) Conc. ppb**
LOS ANGELES COUNTY					
1	Central Los Angeles	331	63.4	51.0	15.2
2	Northwest Coastal Los Angeles County	362	51.2	39.1	9.2
4	South Coastal Los Angeles County 4	360	52.3	45.1	9.8
4	I-710 Near Road##	365	71.3	63.8	19.2
6	West San Fernando Valley	356	58.3	42.9	10.1
7	East San Fernando Valley	364	55.7	46.2	12.1
8	West San Gabriel Valley	361	60.3	48.5	11.7
9	East San Gabriel Valley 2	363	52.1	43.5	8.0
10	Pomona/Walnut Valley	363	63.1	56.5	16.2
11	South San Gabriel Valley	346	61.8	50.1	13.9
12	South Central Los Angeles County	363	60.6	50.0	12.0
13	Santa Clarita Valley	360	49.5	29.0	8.2
ORANGE COUNTY					
16	North Orange County	348	53.5	43.5	10.4
17	Central Orange County	358	55.4	47.2	9.8
17	I-5 Near Road##	360	56.5	51.9	18.6
RIVERSIDE COUNTY					
23	Metropolitan Riverside County 1	358	55.6	47.4	12.3
23	Metropolitan Riverside County 3	350	52.8	45.1	11.0
25	Lake Elsinore Area	357	44.2	33.5	6.6
29	Banning/San Gorgonio Pass	359	49.6	44.1	8.0
30	Coachella Valley 1**	360	41.9	30.6	5.7
SAN BERNARDINO COUNTY					
33	CA-60 Near Road##	361	65.5	58.7	23.7
33	I-10 Near Road##	360	70.0	62.7	24.7
34	Central San Bernardino Valley 1	358	64.6	57.2	17.4
34	Central San Bernardino Valley 2	347	57.7	49.9	14.3
DISTRICT MAXIMUM(b)			**71.3**	**63.8**	**24.7**
SOUTH COAST AIR BASIN(c)			**71.3**	**63.8**	**24.7**

ppb = Parts Per Billion in air, by volume

**Salton Sea Air Basin, Coachella Valley 2 is closed and operations have moved to Coachella Valley 4

Four near-road sites measuring one or more of the pollutants $PM_{2.5}$, CO, and/or NO_2 are operating near the following freeways: I-5, I-10, CA-60, and I-710.

a The NO_2 federal 1-hour standard is 100 ppb and the annual standard is 0.0534 ppm (53.4 ppb). The state 1-hour and annual standards are 0.18 ppm and 0.030 ppm, respectively.

b District Maximum is the maximum value calculated at any one station in the South Coast AQMD jurisdiction.

c Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

[21] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Sulfur Dioxide

SO_2 is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H_2SO_4), which contributes to acid precipitation, and sulfates, which are components of PM10 and PM2.5. Most of the SO_2 emitted into the atmosphere is produced by burning sulfur-containing fuels.

A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO_2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects ~~correlated~~ associated with exposure to fine particles show a similar ~~correlation~~ association with ambient SO_2 levels. In these studies, efforts to separate the effects of exposure to SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.[22,23,24]

As summarized in Table 3-5, SO_2 concentrations were measured at four locations in 2025. No exceedances of 1-hour federal or state standards for SO_2 (75 ppb and 250 ppb, respectively) occurred in 2025 at any of the four locations monitored the Basin. The maximum 1-hour SO_2 concentration was 30.8 ppb (recorded at the Central Los Angeles station). The 99th percentile of 1-hour SO_2 concentration was 5.8 ppb (recorded at the South Coastal Los Angeles County 4 station). Though SO_2 concentrations remain well below the standards, SO_2 is a precursor to sulfate, which is a component of particulate matter (PM10 and PM2.5). Historical measurements showed concentrations to be well below standards and monitoring has been discontinued at other stations. All areas within South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour SO_2 standards.

[22] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.

[23] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.

[24] South Coast AQMD. 2005. May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

Table 3-5
South Coast AQMD – 2025 Air Quality Data – SO_2[25]

SULFUR DIOXIDE (SO_2)[a]				
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Maximum 1-Hour Conc. ppb	99th Percentile 1-Hour Conc. ppb
LOS ANGELES COUNTY				
1	Central Los Angeles	345	30.8	2.6
4	South Coastal Los Angeles County 4	355	8.1	5.8
RIVERSIDE COUNTY				
23	Metropolitan Riverside County 1	360	5.0	1.9
SAN BERNARDINO COUNTY				
34	Central San Bernardino Valley 1	341	4.4	2.6
DISTRICT MAXIMUM[(b)]			**30.8**	**5.8**
SOUTH COAST AIR BASIN[(c)]			**30.8**	**5.8**

ppb = Parts Per Billion in air, by volume

a The federal SO2 1-hour standard is 75 ppb (0.075 ppm). The state standards are 1-hour average SO2 > 0.25 ppm (250 ppb) and 24-hour average SO2 > 0.04 ppm (40 ppb).
b District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.
c Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin. Statistics in concentration units are simply the maximum value at any station in the South Coast Air Basin.

Particulate Matter (PM10 and PM2.5)

Particles small enough to be inhaled into the deepest parts of the lung are of great concern to public health. Respirable particles (particulate matter less than 10 micrometers in diameter, known as PM10) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis, and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of particulate matter.

A consistent correlation between elevated ambient fine particulate matter (PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by PM2.5 and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in PM2.5 concentrations have also been ~~correlated~~ related ~~with~~ to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in respiratory function in normal children, and to increased medication use in children and adults with asthma. Studies have also shown that lung function growth in children is reduced with long-term exposure to particulate matter. In addition to children, the elderly and people with preexisting respiratory and/or cardiovascular disease appear to be more susceptible to the effects of exposure to PM10 and PM2.5.[26,27,28]

[25] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.
[26] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.
[27] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.
[28] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

As summarized in Table 3-6, PM10 concentrations were measured at 17 locations in 2025. While the Coachella Valley Portion of the Salton Sea Air Basin is in nonattainment, the South Coast Air Basin has remained in attainment for the federal 24-hour PM10 standard (i.e., 150 µg/m^3) since 2006, and it was neither exceeded in 2025. The maximum 24-hour PM10 concentration of 154 µg/m^3 was recorded at the Coachella Valley 3 station~~, but this high reading was attributed to high winds and is excluded in accordance with the U.S. EPA Exceptional Event Rule~~. Some measurements were greater than this level but the data is excluded from statistics because they are likely caused by high wind fugitive dust from natural lands and likely meet exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Also, due to rounding considerations, the federal standard is technically 155 µg/m^3. The state 24-hour PM10 standard (i.e., 50 µg/m^3) was exceeded at several of the monitoring stations. All areas within South Coast AQMD's jurisdiction are in nonattainment for the state 24-hour PM10 standard, which was exceeded at 14 of the monitoring stations in 2025.

The maximum annual average PM10 concentration of 39 µg/m^3 was recorded at the Metropolitan Riverside County 3 station. The federal annual PM10 standard has been revoked. The state annual PM10 standard (i.e., 20 µg/m^3) was exceeded in most stations in each county in the Basin and in the Coachella Valley. All areas within South Coast AQMD's jurisdiction are in nonattainment for the state annual PM10 standard, which was exceeded at most stations in each county in the South Coast Air Basin and in the Coachella Valley in 2025.

On December 14, 2012, U.S. EPA strengthened the annual NAAQS for PM2.5 to 12 µg/m^3 and, as part of the revisions, a requirement was established to monitor PM2.5 near the most heavily trafficked roadways in large urban areas. Particle pollution is expected to be higher along these roadways because of direct emissions from cars and heavy-duty diesel trucks and buses. South Coast AQMD installed the two required PM2.5 monitors at locations selected based upon the heavy-duty diesel traffic, which are: 1) I-710, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; and 2) SR-60 near-road, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland. On February 7, 2024, U.S. EPA strengthened the annual NAAQS for PM2.5 to 9 µg/m^3.

As summarized in Table 3-7, PM2.5 concentrations were measured at 16 locations in 2025. While the Coachella Valley Portion of the Salton Sea Air Basin is in attainment, the South Coast Air Basin is in nonattainment for federal and state PM2.5 standards. The maximum 98th percentile 24-hour PM2.5 concentration of 38.8 µg/m^3 was recorded at the Metropolitan Riverside County 3 station, greater than the federal 24-hour PM2.5 standard of 35 µg/m^3. There is no state 24-hour standard for PM2.5. The maximum annual average PM2.5 concentration of 12.99 µg/m^3 was recorded at the CA-60 Near Road station, greater than the federal and state annual PM2.5 standard of 12 µg/m^3.

Table 3-6
South Coast AQMD – 2025 Air Quality Data – PM10[29]

SUSPENDED PARTICULATE MATTER PM10 [a]						
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. 24-hour Conc. µg/m³	No. (%) Samples Exceeding		Annual Average Conc.[b] (AAM), µg/m³
				Federal 24-hour > 150 µg/m³	State 24-hour > 50 µg/m³	
LOS ANGELES COUNTY						
1	Central Los Angeles	360	128	0 (0%)	9 (3%)	25.7
4	South Coastal Los Angeles County 3	355	123	0 (0%)	34 (10%)	33.3
4	South Coastal Los Angeles County 4	352	119	0 (0%)	10 (3%)	23.7
9	East San Gabriel Valley 2	355	136	0 (0%)	3 (1%)	25.3
13	Santa Clarita Valley	61	81	0 (0%)	1 (2%)	20.7
ORANGE COUNTY						
17	Central Orange County	361	108	0 (0%)	9 (2%)	22.6
RIVERSIDE COUNTY						
23	Metropolitan Riverside County 1	360	84	0 (0%)	30 (8%)	32.5
23	Metropolitan Riverside County 3	355	108	0 (0%)	91 (26%)	39.0
25	Lake Elsinore Area	350	94	0 (0%)	6 (2%)	22.9
29	Banning/San Gorgonio Pass	56	40	0 (0%)	0 (0%)	18.8
30	Coachella Valley 1**	365	128	0 (0%)	7 (2%)	20.0
30	Coachella Valley 3**	350	154	0 (0%)	74 (21%)	38.9
30	Coachella Valley 4**	345	133	0 (0%)	50 (15%)	35.9
SAN BERNARDINO COUNTY						
34	Central San Bernardino Valley 1	360	112	0 (0%)	65 (18%)	35.5
34	Central San Bernardino Valley 2	346	112	0 (0%)	34 (10%)	33.5
35	East San Bernardino Valley	59	44	0 (0%)	0 (0%)	21.7
37	Central San Bernardino Mountains	55	38	0 (0%)	0 (0%)	14.9
DISTRICT MAXIMUM[(c)]			**154**	**0**	**91**	**39.0**
SOUTH COAST AIR BASIN[(d)]			**136**	**0**	**126**	**39.0**

µg/m^3 = micrograms per cubic meter of air
AAM = Annual Arithmetic Mean
**Salton Sea Air Basin, Coachella Valley 2 is closed and operations have moved to Coachella Valley 4

a PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data. High PM10 (≥ 155 µg/m3) data recorded in the Coachella Valley and the Basin (due to high winds) are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.
b State annual average (AAM) PM10 standard is > 20 µg/m3. Federal annual PM10 standard (AAM > 50 µg/m3) was revoked in 2006.
c District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.
d Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin. Statistics in concentration units are simply the maximum value at any station in the South Coast Air Basin.

[29] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Table 3-7
South Coast AQMD – 2025 Air Quality Data – PM2.5[30]

SUSPENDED PARTICULATE MATTER PM2.5 [a]						
Source Receptor Area No.	**Location of Air Monitoring Station**	**No. Days of Data**	**Max. 24-hour Conc. µg/m³**	**98th Percentile 24-hr Conc. in µg/m³**	**No. (%) Samples Exceeding Federal 24-hour Standard > 35 µg/m³**	**Annual Average Conc.[b] (AAM) (µg/m³)**
LOS ANGELES COUNTY						
1	Central Los Angeles	330	54.6	35.4	5 (2%)	11.88
4	South Coastal Los Angeles County 4	352	43.9	23.4	3 (1%)	10.10
4	I-710 Near Road##	331	57.4	32.1	4 (1%)	11.86
6	West San Fernando Valley	110	45.1	22.3	1 (1%)	9.45
8	West San Gabriel Valley	113	37.6	29.5	1 (1%)	10.65
11	South San Gabriel Valley	118	43.5	32.7	2 (2%)	12.28
12	South Central Los Angeles County	294	56.0	37	6 (2%)	12.38
ORANGE COUNTY						
17	Central Orange County	362	55.6	33.2	5 (1%)	10.48
RIVERSIDE COUNTY						
23	Metropolitan Riverside County 1	362	59.7	34.3	7 (2%)	11.36
23	Metropolitan Riverside County 3	359	76.7	38.8	11 (3%)	12.65
30	Coachella Valley 1**	120	16.2	11.7	0 (0%)	5.57
30	Coachella Valley 4**	358	25.0	16	0 (0%)	6.80
SAN BERNARDINO COUNTY						
33	CA-60 Near Road##	358	71.3	36	8 (2%)	12.99
34	Central San Bernardino Valley 1	119	43.2	33.1	1 (1%)	12.15
34	Central San Bernardino Valley 2	120	49.6	35.2	2 (2%)	11.72
38	East San Bernardino Mountains	348	24.1	16.4	0 (0%)	5.50
DISTRICT MAXIMUM[(c)]			**76.7**	**38.8**	**11**	**12.99**
SOUTH COAST AIR BASIN[(d)]			**76.7**	**38.8**	**17**	**12.99**

µg/m^3 = micrograms per cubic meter of air
AAM = Annual Arithmetic Mean
**Salton Sea Air Basin, Coachella Valley 2 is closed and operations have moved to Coachella Valley 4
Four near-road sites measuring one or more of the pollutants $PM_{2.5}$, CO, and/or NO_2 are operating near the following freeways: I-5, I-10, CA-60, and I-710.

a The PM2.5 statistics presented above represent FRM data, supplemented with FEM or special purpose monitor PM2.5 measurements to fill in for missing FRM values — except in West San Fernando Valley, South San Gabriel Valley, West San Gabriel Valley, Coachella Valley 1, and Central San Bernardino Valley, where only FRM data are used. FEM PM2.5 data that are not eligible for comparisons to the National Ambient Air Quality Standards are excluded, including Central LA, I-710 Near Road and South Central LA County. PM2.5 measurements above the annual average attributed to fireworks and wildfires are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

b Federal standards are annual average (AAM) >9.0 µg/m³ and state standards are annual average (AAM) > 12.0 µg/m³.

c District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

d Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin. Statistics in concentration units are simply the maximum value at any station in the South Coast Air Basin.

[30] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Lead

Under the federal Clean Air Act, lead is classified as a "criteria pollutant". Exposure to lead causes observed adverse health effects at ambient concentrations. Lead is also deemed a carcinogenic toxic air contaminant (TAC) by OEHHA. Lead in the atmosphere is a mixture of several lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a substantial reduction in atmospheric lead concentrations in the Basin over the past three decades. In fact, there were no violations of the lead standards at South Coast AQMD's regular air monitoring stations from 1982 to 2025, primarily due to the removal of lead from gasoline.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are ~~correlated~~ associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. However, no direct effects on the respiratory system have been identified from exposure to lead. Lead can be stored in the bone from early-age environmental exposure, and elevated levels of lead in blood can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bone tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.[31, 32 33]

As summarized in Table 3-8, South Coast AQMD monitored lead concentrations at five monitoring stations in 2025. The South Coast Air Basin (Los Angeles County area) is currently in nonattainment for lead. This nonattainment designation was due to the operations of specific stationary sources of lead emissions. The Mojave Desert Air Basin, the South Coast Air Basin outside of Los Angeles County, and Salton Sea Air Basin are ~~both~~all in attainment for lead. Stringent South Coast AQMD rules governing lead-producing sources will help to ensure that there are no future violations of the federal standard. The current lead concentrations in Los Angeles County are below the federal 3-month rolling average standard of 0.15 $\mu g/m^3$. Further, the state 30-day standard of 1.5 $\mu g/m^3$ was not exceeded in any areas under the jurisdiction of the South Coast AQMD in 2025.

Sulfates

Sulfates are chemical compounds which contain the sulfate ion and are part of the mixture of solid materials which make up PM10. Most of the sulfates in the atmosphere are produced by oxidation of sulfur dioxide (SO_2). Oxidation of sulfur dioxide yields sulfur trioxide (SO_3), which reacts with water to form sulfuric acid, which then contributes to acid deposition. The reaction of sulfuric acid with basic substances such as ammonia yields sulfates, a component of PM10 and PM2.5.

Most of the health effects associated with exposure to fine particles and SO_2 at ambient levels are also correlated with sulfates. Both mortality and morbidity effects have been observed with an

[31] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.

[32] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.

[33] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.

increase in ambient sulfate concentrations. However, efforts to separate the effects of sulfates from the effects of other pollutants have generally not been successful.[34,35,36]

As summarized in Table 3-8, South Coast AQMD monitored sulfate at four monitoring stations in 2025. The state 24-hour sulfate standard of 25 µg/m^3 was not exceeded in the South Coast Air Basin, which is in attainment for sulfate. The Mojave Desert Air Basin and Salton Sea Air Basin are also in attainment for sulfate. There are no federal sulfate standards.

Table 3-8
South Coast AQMD – 2025 Air Quality Data – Lead and Sulfates[37]

		LEAD[a]		SULFATES[b]	
Source Receptor Area No.	**Location of Air Monitoring Station**	**Max. Monthly Average Conc. µg/m^3**	**Max. 3-Month Rolling Average µg/m^3**	**No. Days of Data**	**Max. Conc. µg/m^3, 24-hour**
LOS ANGELES COUNTY					
1	Central Los Angeles	0.014	0.010	31	5.6
11	South San Gabriel Valley	0.011	0.011	--	--
12	South Central Los Angeles County	0.012	0.010	--	--
ORANGE COUNTY					
17	Central Orange County	--	--	31	3.5
RIVERSIDE COUNTY					
23	Metropolitan Riverside County 1	0.008	0.008	31	2.8
SAN BERNARDINO COUNTY					
34	Central San Bernardino Valley 1	--	--	31	3.0
34	Central San Bernardino Valley 2	0.011	0.01	--	--
DISTRICT MAXIMUM[(c)]		**0.014**	**0.011**		**5.6**
SOUTH COAST AIR BASIN[(d)]		**0.014**	**0.011**		**5.6**

µg/m^3 = micrograms per cubic meter of air
-- Pollutant not monitored

a Lead is measured in Total Suspended Particulate (TSP) samples. Federal lead standard is 3-months rolling average > 0.15 µg/m3; state standard is monthly average > 1.5 µg/m^3. Note 3-month averages include data from November and December 2024. Higher lead concentrations were recorded at near-source monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages recorded at near-source sites were 0.023 µg/m3 and 0.019 µg/m3, respectively. Lead standards were not exceeded at any site.
b State 24-hour sulfate standard is ≥ 25 µg/m^3. There is no federal standard for sulfate.
c District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.
d Statistics are calculated with a dataset that aggregates the highest concentration at any station in the South Coast Air Basin for each day and pollutant. Therefore, concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin. Statistics in concentration units are simply the maximum value at any station in the South Coast Air Basin.

[34] U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants, accessed on August 21, 2026.
[35] South Coast AQMD. 2015. Health Effects of Air Pollution. http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on August 21, 2026.
[36] South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on August 21, 2026.
[37] South Coast AQMD, 2026. 2025 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2025; accessed on September 16, 2026 at: https://www.aqmd.gov/docs/default-source/air-quality/2025-air-quality-data-tables.pdf.

Vinyl Chloride

Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as A1 (confirmed carcinogen in humans) and by the International Agency for Research on Cancer (IARC) as 1 (known to be a human carcinogen).[38] At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored as a liquid. Due to the hazardous nature of vinyl chloride to human health there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polymer polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles.

In the past, vinyl chloride emissions have been associated primarily with sources such as landfills. Risks from exposure to vinyl chloride are considered to be localized impacts rather than regional impacts. Because landfills in the South Coast AQMD are subject to Rule 1150.1 – Control of Gaseous Emissions from Municipal Solid Waste Landfills, which contain stringent requirements for landfill gas collection and control, potential vinyl chloride emissions are expected to be below the level of detection. Therefore, South Coast AQMD does not monitor for vinyl chloride at its monitoring stations.

Volatile Organic Compounds

There are no state or NAAQS for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because VOCs are a precursor to the formation of ozone in the atmosphere. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM10 and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

Non-Criteria Pollutants

Although South Coast AQMD's primary mandate is attaining the state and NAAQS for criteria pollutants within the Basin, South Coast AQMD also has a general responsibility pursuant to Health and Safety Code Section 41700 to control emissions of air contaminants and prevent endangerment to public health. Additionally, state law requires South Coast AQMD to implement ATCMs adopted by CARB and to implement the Air Toxics "Hot Spots" Act. As a result, South Coast AQMD has regulated pollutants other than criteria pollutants such as TACs, GHGs, and stratospheric ozone depleting compounds. South Coast AQMD has developed several rules which are designed to control non-criteria pollutants from both new and existing sources. These rules

[38] International Agency for Research on Cancer. Vinyl Chloride Exposure Data, https://monographs.iarc.who.int/wp-content/uploads/2018/06/mono100F-31.pdf, accessed on June 10, 2022.

originated through state directives, CAA requirements, or the South Coast AQMD rulemaking process.

In addition to promulgating non-criteria pollutant rules, South Coast AQMD has been evaluating control measures in the ~~2016~~ 2022 AQMP as well as existing rules to determine whether they would affect, either positively or negatively, emissions of non-criteria pollutants. For example, rules which target the VOC components of coating materials and that allow for the replacement of the VOC components with a non-photochemically reactive chlorinated substance would reduce the impacts resulting from ozone formation but could increase emissions of toxic compounds or other substances that may have adverse impacts on human health.

Carcinogenic Health Risks from TACs: One of the primary health risks of concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is a public health concern because it is currently believed by many scientists that there is no 'safe' level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of causing cancer. It is currently estimated that about one in four deaths in the United States is attributable to cancer. The proportion of cancer deaths attributable to air pollution has not been estimated using epidemiological methods.

Non-cancer Health Risks from TACs: Unlike carcinogens, for most non-carcinogens it is believed that there is a threshold level of exposure to the compound below which it will not pose a health risk. CalEPA's OEHHA develops Reference Exposure Levels (RELs) for TACs are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The non-cancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index (HI).

Multiple Air Toxics Exposure Study (MATES): In 1986, South Coast AQMD conducted the first MATES report to determine the risks associated with major airborne carcinogens in the South Coast Air Basin. Four MATES studies have -been published since then, with MATES V[39] the most recently completed and ~~T~~the sixth study, ~~most current version (~~MATES VI[40]~~)~~, currently being conducted to update data for the 2025 to 2026 study period. MATES VI consists of a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the South Coast Air Basin. The study focuses on the carcinogenic risk and chronic non-cancer health risk from exposure to air toxics but does not estimate mortality or other health effects from criteria pollutant exposures which are conducted as part of the ~~2016~~ AQMP. ~~Two~~ Several key updates ~~were~~ are being implemented in MATES VI. ~~First,~~Monitoring at two near-road sites, at Ontario near State Route 60 and Long Beach near State Route 710, and at a site in the Coachella Valley is being conducted for the first time in a MATES campaign. ~~cancer risk estimations now account for multiple exposure pathways~~South Coast AQMD is studying Ethylene Oxide (EtO) risks through a comprehensive measurement study including one in six-day, 24-hour integrated sampling at all stations and continuous monitoring using Tunable Infrared Laser Direct Absorption Spectrometer (TILDAS) instruments at one site in the South Coast Air Basin and two background sites in order to determine how much EtO originates from sources in the South Coast Air Basin.

[39] South Coast AQMD, MATES V, Multiple Air Toxics Exposure Study in the South Coast AQMD, Final Report, August 2021. http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report.pdf, accessed on August 21, 2026.

[40] MATES VI Multiple Air Toxics Exposure Study, https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-vi Accessed on October 13, 2026

~~Previous MATES studies quantified the cancer risks based on the inhalation pathway only; a cumulative cancer risk accounting for inhalation and non-inhalation pathways is approximately eight percent higher than the inhalation-only calculation for the MATES V data. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer health impacts from inhalation and non-inhalation pathways for the first time. The cumulative chronic hazard index accounting for the inhalation and non-inhalation pathways is approximately twice the inhalation-only calculation for the MATES V data.~~ South Coast AQMD is also conducting an initial evaluation of brake and tire wear particle contribution to particulate matter. As vehicle exhaust emissions have decreased due to emission controls, non-exhaust emissions make up a larger fraction of emissions and thus it is important to evaluate their impacts on particulate matter and air toxics.

3.2.2 GREENHOUSE GAS EMISSIONS

Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The latter, anthropogenic sources of GHGs, is the focus of impacts under CEQA. Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts, and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO_2 'domes' that form over urban areas showed that they cause increases in local temperatures and local criteria pollutants, which have adverse health effects.[42]

3.2.2.1 Climate Change

Global climate change is a change in the average weather of the Earth, which can be measured by wind patterns, storms, precipitation, and temperature. Historical records have shown that temperature changes have occurred in the past, such as during previous ice ages. Data indicates that the current temperature record differs from previous climate changes in rate and magnitude.

Gases that trap heat in the atmosphere are often called greenhouse gases, comparable to a greenhouse, which captures and traps radiant energy. GHGs are emitted by natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature. Global warming is the observed increase in average temperature of the earth's surface and atmosphere. The primary cause of global warming is an increase of GHGs in the atmosphere. The six major GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbon (PFCs). The GHGs absorb longwave radiant energy emitted by the Earth, which warms the atmosphere. The GHGs also emit longwave radiation both upward to space and back down toward the surface of the Earth. The downward part of this longwave radiation emitted by the atmosphere is known as the "greenhouse effect." Emissions from human activities such as fossil fuel combustion for electricity production and vehicles have elevated the concentration of these gases in the atmosphere.

- **Carbon dioxide (CO_2)** is an odorless, colorless greenhouse gas. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants,

[42] Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO_2 Domes," Environmental Science and Technology, as described in Stanford University press release on March 16, 2010 available at: https://web.stanford.edu/group/efmh/jacobson/Articles/V/CO2SOM0310.pdf, accessed on August 21, 2026.

animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO_2 include burning coal, oil, gasoline, natural gas, and wood.

- **Methane (CH_4)** is a flammable gas and is the main component of natural gas.
- **Nitrous Oxide (N_2O)**, also known as laughing gas, is a colorless greenhouse gas. Some industrial processes such as fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions also contribute to the atmospheric load of N_2O.
- **Sulfur hexafluoride (SF_6)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
- **Hydrofluorocarbons (HFCs)** are synthetic man-made chemicals composed of hydrogen, fluorine, and carbon that are used as a substitute for chlorofluorocarbons (whose production was stopped as required by the Montreal Protocol) for use in automobile air conditioners and refrigerants.
- **Perfluorocarbons (PFCs)** are synthetic man-made chemicals composed of fluorine and carbon that are used as a substitute for chlorofluorocarbons in producing aluminum and manufacturing semiconductors

Scientific consensus, as reflected in recent reports issued by the United Nations Intergovernmental Panel on Climate Change, is that the majority of the observed warming over the last 50 years can be attributable to increased concentration of GHGs in the atmosphere due to human activities. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants. In the past, gradual changes in temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but in a human's lifetime. Industrial activities, particularly increased consumption of fossil fuels (gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHGs. The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400 to 450 ppm carbon dioxide-equivalent (CO_2eq) concentration is required to keep global mean warming below two degrees Celsius, which has been identified as necessary to avoid dangerous impacts from climate change.[43]

The potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, air quality impacts, and sea level rise. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases may increase, such as those spread by mosquitoes and other insects. Those diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding, hurricanes, and wildfires can displace people and agriculture, which would have negative consequences. Drought in some areas may increase, which would decrease water and food

[43] Intergovernmental Panel on Climate Change (IPCC). 2014. *Fifth Assessment Report: Climate Change 2014*. New York: Cambridge University Press, https://www.ipcc.ch/report/ar5/syr/, accessed on August 21, 2026.

availability. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.44

The impacts of climate change will also affect projects in various ways. Effects of climate change are rising sea levels and changes in snowpack.[45] The extent of climate change impacts at specific locations remain unclear.

Federal, state, and local agencies are working towards more precisely quantifying impacts in various regions. As an example, the California Department of Water Resources is expected to formalize a list of foreseeable water quality issues associated with various degrees of climate change. Once state government agencies make these lists available, they could be used to more precisely determine to what extent a project creates global climate change impacts.

Statewide Inventory

GHG emissions in the state have been inventoried by CARB. As shown in Figure 3-1, CO_2 accounts for 80 percent of the total 404 million metric tons (MT) of CO_2eq emissions in the state in 2019. Figure 3-2 illustrates that transportation (primarily on-road travel) is the single largest source of CO_2 emissions in the state. Upstream transportation emissions from the refinery and oil and gas sectors are categorized as CO_2 emissions from industrial sources and constitute about 50 percent of the industrial source emissions. When these emissions sources are attributed to the transportation sector, the emissions from the transportation sector amount to approximately half of statewide GHG emissions. In addition to transportation, electricity production, industrial, and residential sources also are important contributors to CO_2 emissions. Figures 3-1 and 3-2 show state GHG emission contributions by GHG and sector based on the 2019 Greenhouse Gas Emission Inventory. The emissions presented in Figure 3-2 are depicted by Scoping Plan sector, which includes separate categories for high-global warming potential (GWP) and recycling/waste emissions that are otherwise typically included within other economic sectors.

[44] Center for Disease Control. 2016. Climate Change Decreases the Quality of the Air We Breathe. https://www.cdc.gov/climate-health/media/pdfs/AIR-QUALITY-Final_508_1.pdf, accessed on August 21, 2026.

[45] Office of Environmental Health Hazards Assessment, 2018. Indicators of Climate Change in California. https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf, accessed on August 21, 2026.

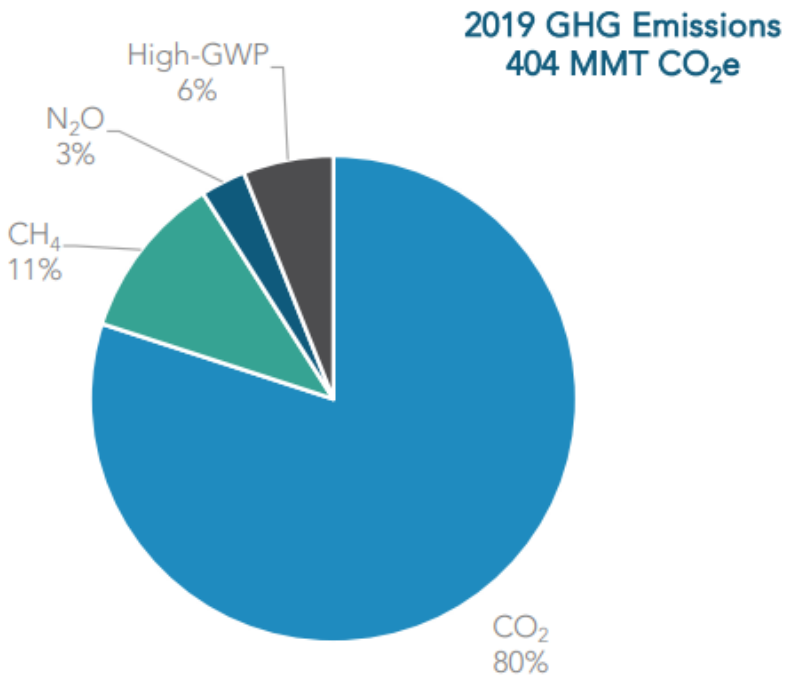

Figure 3-1
2019 Statewide GHG Emission Contributions by GHG[46]

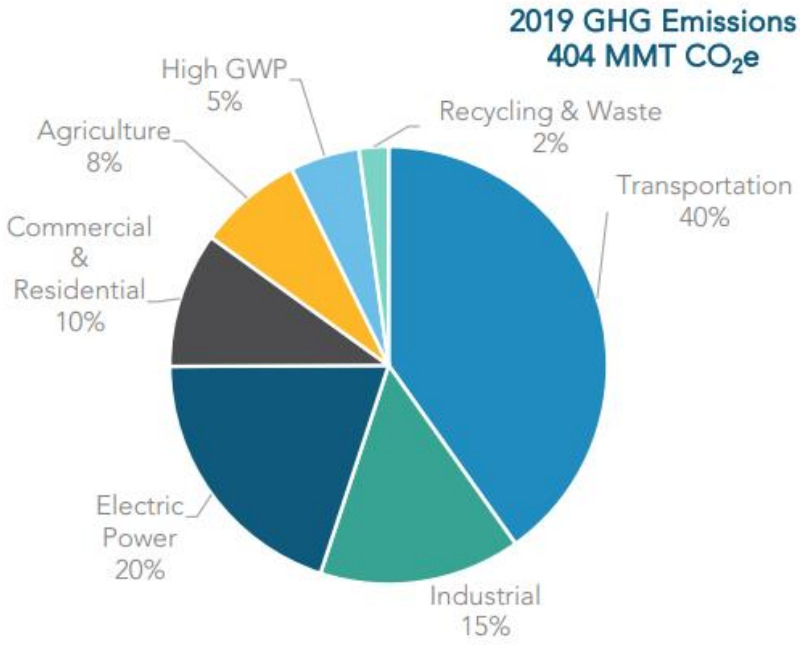

Figure 3-2
2019 Statewide GHG Emission Contributions by Scoping Plan Sector[47]

The GHG emission inventory encompasses emission sources within the state's border, as well as imported electricity consumed in the state. Statewide GHG emissions calculations use many data

[46] CARB, 2022. Final 2022 Scoping Plan for Achieving Carbon Neutrality, Figure 1-7, p. 55, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed on September 16, 2026.
[47] CARB, 2022. Final 2022 Scoping Plan for Achieving Carbon Neutrality, Figure 1-8, p. 56, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf, accessed on September 16, 2026.

sources, including data from other state and federal agencies. However, the primary source of data comes from reports submitted to CARB through the CARB Regulation for the Mandatory Reporting of GHG Emissions, which requires facilities and entities with more than 10,000 metric tons of CO_2eq to report emissions directly to CARB. Reported emissions greater than 25,000 metric tons are required to be verified by a CARB-accredited third-part verification body.

3.2.2.2 Regulatory Setting

3.2.2.2.1 Federal

Greenhouse Gas Endangerment Findings: On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases pursuant to the federal Clean Air Act (CAA) Section 202(a). The Endangerment Finding stated that CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 taken in combination endanger both the public health and the public welfare of current and future generations. The *Cause or Contribute Finding* stated that the combined emissions from motor vehicles and motor vehicle engines contribute to the greenhouse gas air pollution that endangers public health and welfare. These findings were a prerequisite for implementing GHG standards for vehicles. The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) finalized emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011. Subsequently, the U.S. EPA rolled back the light duty GHG standards, a decision which is currently under litigation. In August 2021, the U.S. EPA proposed replacement GHG standards for light-duty vehicles and announced plans to reduce GHG emissions from heavy-duty trucks through a series of major rulemakings over the next three years with the first to be finalized in 2022.[48] On March 7, 2022, the U.S. EPA proposed the first step in the U.S. EPA's "Clean Trucks Plan" that would revise existing GHG standards for model year 2027 and beyond trucks in subsectors where electrification is advancing at a more rapid pace. The sectors include school buses, transit buses, commercial delivery trucks, and short-haul tractors.

Renewable Fuel Standard: The Renewable Fuel Standard (RFS) program was established under the Energy Policy Act (EPAct) of 2005 and required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act (EISA) of 2007, the RFS program was expanded to include diesel, required that the volume of renewable fuel blended into transportation fuel be increased from nine billion gallons in 2008 to 36 billion gallons by 2022, established new categories of renewable fuel, and required U.S. EPA to apply lifecycle GHG performance threshold standards so that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces. In a separate measure, the U.S. EPA will be setting new GHG emission standards for heavy-duty vehicles as soon as model year 2030, which will more comprehensively address the long-term trend towards zero emission vehicles across the heavy-duty sector.[49]

GHG Tailoring Rule: On May 13, 2010, U.S. EPA finalized the GHG Tailoring Rule to phase in the applicability of the Prevention of Significant Deterioration (PSD) and Title V operating permit programs for GHGs. The GHG Tailoring Rule was tailored to include the largest GHG emitters, while excluding smaller sources (restaurants, commercial facilities and small farms). The first

[48] U.S. EPA, 2021. EPA to Overhaul Pollution Standards for Passenger Vehicles and Heavy-Duty Trucks, Paving Way for Zero-Emission Future, News Release, August 5, 2021. https://www.epa.gov/newsreleases/epa-overhaul-pollution-standards-passenger-vehicles-and-heavy-duty-trucks-paving-way, accessed on August 21, 2026.

[49] U.S. EPA, 2022. EPA Proposes Stronger Standards for Heavy-Duty Vehicles to Promote Clean Air, Protect Communities, and Support Transition to Zero-Emissions Future, News Release, March 7, 2022. https://www.epa.gov/newsreleases/epa-proposes-stronger-standards-heavy-duty-vehicles-promote-clean-air-protect, accessed on August 21, 2026.

phase (from January 2, 2011 to June 30, 2011) addressed the largest sources that contributed 65 percent of the stationary GHG sources. Title V GHG requirements were triggered only when affected facility owners/operators were applying, renewing or revising their permits for non-GHG pollutants. PSD GHG requirements were applicable only if sources were undergoing permitting actions for other non-GHG pollutants and the permitted action would increase GHG emission by 75,000 metric tons of CO_2 equivalent emissions (CO_2eq) per year or more. The Tailoring Rule originally included a second phase for sources that were not otherwise major sources but had the potential to emit 100,000 metric tons of CO_2eq per year. In 2014, the U.S. Supreme Court held that U.S. EPA was limited to phase 1.

GHG Reporting Program: U.S. EPA issued the Mandatory Reporting of Greenhouse Gases Rule (40 CFR Part 98) under the 2008 Consolidated Appropriations Act. The Mandatory Reporting of Greenhouse Gases Rule requires reporting of GHG data from large sources and suppliers under the Greenhouse Gas Reporting Program. Suppliers of certain products that would result in GHG emissions if released, combusted or oxidized; direct emitting source categories; and facilities that inject CO_2 underground for geologic sequestration or any purpose other than geologic sequestration are included. Facilities that emit 25,000 metric tons or more per year of GHGs as CO_2eq are required to submit annual reports to U.S. EPA.

Ozone-Depleting Substances: Under the CAA Title VI, the U.S. EPA is assigned responsibility for implementing programs that protect the stratospheric ozone layer. 40 CFR Part 82 contains U.S. EPA's regulations specific to protecting the ozone layer. These U.S. EPA regulations phase out the production and import of ozone-depleting substances (ODSs) consistent with the Montreal Protocol.[50] ODSs are typically used as refrigerants or as foam-blowing agents. ODS are regulated as Class I or Class II controlled substances. Class I substances have a higher ozone-depleting potential and have been completely phased out in the United States, except for exemptions allowed under the Montreal Protocol. Class II substances are HCFCs, which are transitional substitutes for many Class I substances and are being phased out.

3.2.2.2.2 State

Statewide GHG Reduction Targets

Executive Order S-3-05: In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established emission reduction targets. The goals would reduce GHG emissions to 2000 levels by 2010, then to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill (AB) 32 – Global Warming Solutions Act: On September 27, 2006, AB 32, the California Global Warming Solutions Act of 2006, was signed by Governor Schwarzenegger. AB 32 expanded on Executive Order S-3-05. The California legislature stated that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." AB 32 represented the first enforceable statewide program in the U.S. to cap all GHG emissions from major industries that includes penalties for non-compliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 laid out a program to inventory and reduce GHG emissions in California

[50] The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) is an international treaty designed to phase out halogenated hydrocarbons such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are considered ODSs. The Montreal Protocol was first signed on September 16, 1987 and has been revised seven times. The U.S. ratified the original Montreal Protocol and each of its revisions.

and from power generation facilities located outside the state that serve California residents and businesses.

Consistent with the requirement to develop an emission reduction plan, CARB prepared a Scoping Plan indicating how GHG emission reductions will be achieved through regulations, market mechanisms, and other actions. The 2008 Scoping Plan called for reducing GHG emissions to 1990 levels by 2020. This means cutting approximately 30 percent from business-as-usual (BAU) emission levels projected for 2020, or about 15 percent from 2005 to 2008 levels.[51] However, as of January 1, 2020, SB 32 became the guiding GHG regulation.

Senate Bill (SB) 32 and AB 197: In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197, making the Executive Order goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 into a statewide, mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources. CARB prepared a 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 million $MTCO_2eq$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.[52] On ~~May 10~~December 15, 2022, CARB adopted ~~released~~ the ~~Draft~~ Final 2022 Scoping Plan for Achieving Carbon Neutrality (Final 2022 Scoping Plan), ~~Update for public review and~~ which assessed progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.

The major elements of the ~~Draft~~ Final 2022 Scoping Plan ~~Update~~ include: 1) "the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place here for a decade and a half; and 2) re-envisioning of our forests, shrublands/chaparral, croplands, wetlands, and other lands (referred to as Natural and Working Lands) to ensure that they play as robust a role as possible in incorporating and storing more carbon in the trees, plants, soil, and wetlands that cover 90 percent of the state's 105 million acres. Specifically, the ~~Draft~~ Final 2022 Scoping Plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 ~~or earlier~~ and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle throughout the document.
- Incorporates the contribution of natural and working lands to the state's GHG emissions, as well as its role in achieving carbon neutrality.

[51] California Air Resources Board. 2008, December. Climate Change Scoping Plan, A Framework for Change.
[52] CARB, 2017, California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf, accessed on August 21, 2026.

- Relies on the most up to date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration as well a direct air capture.
- Evaluates the substantial health and economic benefits of taking actions.
- Identifies key implementation actions to ensure success~~multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each~~.[53]

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero emission and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conserve agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the stringency of the standards for the various strategies covered under the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes near-zero emission technology and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.[54]

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the state's long-term GHG reduction goals and recommended local actions to reduce GHG emissions—for example, statewide targets of no more than six $MTCO_2eq$ or less per capita by 2030 and two $MTCO_2eq$ or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and sustainable development objectives and develop plans to achieve the local goals. The statewide

[53] CARB 2022, ~~Draft~~ Final 2022 Scoping Plan for Achieving Carbon Neutrality~~Update~~, ~~May~~ December ~~10~~15, 2022, Executive Summary, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp-es.pdf~~https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf~~, accessed on ~~August~~ October ~~21~~9, 2026.

[54] CARB, 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf, accessed on August 21, 2026.

per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the state's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.[55]

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the state did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit. It includes the existing renewables requirements, advanced clean cars, the LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. The known commitments are expected to result in emissions that are 60 million $MTCO_2eq$ above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Mobile Sources

AB 1493 Vehicular Emissions: Prior to the U.S. EPA and NHTSA joint rulemaking, Governor Schwarzenegger signed Assembly Bill AB 1493 (2002). AB 1493 requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." CARB originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009 (see amendments to CCR Title 13 Sections 1900 and 1961 (13 CCR 1900, 1961), and the adoption of CCR Title 13 Section 1961.1 (13 CCR 1961.1)). California's first request to the U.S. EPA to implement GHG standards for passenger vehicles was made in December 2005 and subsequently denied by the U.S. EPA in March 2008. The U.S. EPA then granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. On April 1, 2010, CARB filed amended regulations for passenger vehicles as part of California's commitment toward the national program to reduce new passenger vehicle GHGs from 2012 through 2016. In 2012, CARB approved the Low-Emission Vehicle (LEV) III regulations which include increasingly stringent emission standards for both criteria pollutants and greenhouse gases for new passenger vehicles of manufacture years 2017 through 2025.[56]

Low Carbon Fuel Standard (LCFS): In the 2008 Scoping Plan, CARB identified the LCFS as one of the nine discrete early action GHG reduction measures. The LCFS is designed to decrease

[55] CARB, 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf, accessed on August 21, 2026.

[56] CARB, Low-Emission Vehicle Greenhouse Gas Program, https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/lev-program/low-emission-vehicle-greenhouse-gas, accessed on August 21, 2026.

the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits. CARB approved the LCFS regulation in 2009 and began implementation on January 1, 2011 and has been amended several times since adoption. In 2018, CARB approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. The LCFS standards are expressed in terms of the 'carbon intensity' of gasoline and diesel fuel and their respective substitutes. The program is based on the principle that each fuel has 'lifecycle' greenhouse gas emissions that include CO_2, CH_4, N_2O, and other GHG contributors. This lifecycle assessment examines the GHG emissions associated with the production, transportation, and use of a given fuel. The lifecycle assessment includes direct emissions associated with producing, transporting, and using the fuels, as well as significant indirect effects on GHG emissions, such as changes in land use for some biofuels. The carbon intensity scores assessed for each fuel are compared to a declining carbon intensity benchmark for each year. Low carbon fuels below the benchmark generate credits, while fuels above the carbon intensity benchmark generate deficits. Providers of transportation fuels must demonstrate that the mix of fuels they supply for use in California meets the LCFS carbon intensity standards, or benchmarks, for each annual compliance period. A deficit generator meets its compliance obligation by ensuring that the quantity of credits it earns or otherwise acquires from another party is equal to, or greater than, the deficits it has incurred.

EO S-1-07: Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which established the transportation sector as the main source of GHG emissions in California. Executive Order S-1-07 proclaims that the transportation sector accounts for over 40 percent of statewide GHG emissions. Executive Order S-1-07 also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020. Executive Order S-1-07 established the LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the 'life-cycle carbon intensity' of transportation fuels. The analysis supporting development of the protocols was included in the State Alternative Fuels Plan adopted by CEC on December 24, 2007 and was submitted to CARB for consideration as an 'early action' item under AB 32. CARB adopted the LCFS on April 23, 2009.

EO B-16-2012: Executive Order B-16-2012 establishes long-term targets of reaching 1.5 million zero emission vehicles on California's roadways by 2025 and sets zero emission vehicle purchasing requirements for state government fleets. Executive Order B-16-2012 also sets a target for 2050 to achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. In February 2013, an interagency working group developed the "Zero-Emission Vehicle Action Plan," which identified specific strategies and actions that state agencies needed to take to meet the milestones of this Executive Order. The Zero-Emission Vehicle Action Plan states: "*Zero-Emission Vehicles are crucial to achieving the state's 2050 greenhouse gas goal of 80 percent emission reductions below 1990 levels, as well as meeting federal air quality standards. Achieving 1.5 million Zero-Emission Vehicles by 2025 is essential to advance the market and put the state on a path to meet these requirements.*"

EO N-79-20: On September 23, 2020, Governor Newsom signed Executive Order N-79-20 which included the following goals to have: 1) 100 percent of in-state sales of new passenger cars and trucks transition to zero emission vehicles by 2035; 2) 100 percent of drayage trucks transition to zero emission vehicles by 2035; 3) 100 percent of medium- and heavy-duty vehicles transition to zero emission vehicles by 2045 for all operations in California, where feasible; and 4) 100 percent of off-road vehicles and equipment to transition to zero emission vehicles and equipment by 2035, where feasible.

SB 44: The California Legislature passed SB 44, acknowledging the ongoing need to evaluate opportunities for mobile source emissions reductions and requires CARB to update the 2016 Mobile Source Strategy by January 1, 2021, and every five years thereafter. Specifically, SB 44 requires CARB to update the 2016 Mobile Source Strategy to include a comprehensive strategy for the deployment of medium- and heavy-duty vehicles for meeting air quality standards and reducing GHG emissions. It also directs CARB to set reasonable and achievable goals for reducing emissions by 2030 and 2050 from medium- and heavy-duty vehicles that are consistent with the California's overall goals and maximizes the reduction of criteria air pollutants.

SB 375: SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). CARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned GHG emission reduction targets. If MPOs do not meet the GHG reduction targets, transportation projects located in the MPO boundaries would not be eligible for funding programmed after January 1, 2012.

CARB appointed the Regional Targets Advisory Committee (RTAC), as required under SB 375, on January 23, 2009. The RTAC's charge was to advise CARB on the factors to be considered and methodologies to be used for establishing regional targets. The RTAC provided its recommendation to CARB on September 29, 2009. CARB was required to adopt final targets by September 30, 2010.[57]

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018.[58,59] The updated targets became effective on October 1, 2018. The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from

[57] California Air Resources Board 2010, August. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.

[58] California Air Resources Board, 2018, SB 375 Regional Greenhouse Gas Emissions Reduction Targets https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Final_Targets_2018.pdf, accessed on August 21, 2026.

[59] California Air Resources Board, 2018, Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emissions Reduction Targets, https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf, accessed on August 21, 2026.

automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies, and any potential future state strategies, such as statewide road user pricing. The targets also call for greater per-capita GHG emission reductions from SB 375 than what were previously in place, which for 2035 translate into targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an eight percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent).[60] CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these revised targets.

SCAG's Regional Transportation Plan / Sustainable Communities Strategy: SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. SCAG released the draft 2020-2045 RTP/SCS (Connect SoCal) on November 7, 2019. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt the Connect SoCal Plan.[61] In general, the SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land uses strategies in development of the SCAG region through horizon year 2045. Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of eight percent by 2020 and 19 percent by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a 'Core Vision' that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

Adaptation

EO S-13-08: Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 which directed California to develop methods for adapting to climate change through preparation of a statewide plan. Executive Order S-13-08 directed OPR, in cooperation with the Resources Agency, to provide land use planning guidance related to sea level rise and other climate change impacts by May 30, 2009. Executive Order S-13-08 also directed the Resources Agency to develop a state Climate Adaptation Strategy by June 30, 2009 and to convene an independent panel to complete the first California Sea Level Rise Assessment Report. The assessment report was required to be completed by December 1, 2010 and required to meet the following four criteria:

1. Project the relative sea level rise specific to California by considering issues such as coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates;

[60] California Air Resources Board. 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf, accessed on August 21, 2026.

[61] Southern California Association of Governments (SCAG). 2020, September. Adopted Final Connect SoCal. https://scag.ca.gov/read-plan-adopted-final-plan, accessed on August 21, 2026.

2. Identify the range of uncertainty in selected sea level rise projections;
3. Synthesize existing information on projected sea level rise impacts to state infrastructure (e.g., roads, public facilities, beaches), natural areas, and coastal and marine ecosystems; and
4. Discuss future research needs relating to sea level rise in California.

Energy

SB 1078, SB 107 and EO S-14-08: SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date from 2017 to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard from 20 percent by 2010 to 33 percent renewable power by 2020.

SB X-1-2: SB X1-2 was signed by Governor Brown in April 2011. SB X1-2 created a new Renewables Portfolio Standard (RPS), which pre-empted CARB's 33 percent Renewable Electricity Standard. The new RPS applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. These entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement by the end of 2020.

SB 1368: SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the CPUC to establish a GHG emission performance standard for baseload generation from investor-owned utilities (IOUs) by February 1, 2007. The California Energy Commission (CEC) was also required to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired power plant. The legislation further required that all electricity provided to California, including imported electricity, must be generated from power plants that meet the standards set by the Public Utilities Commission (PUC) and CEC.

SB 350: Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS with 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

SB 100: On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consists of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

EO B-55-18: Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directed CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2eq from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

AB 2127: This bill requires the California Energy Commission (CEC), working with CARB and the California Public Utilities Commission (CPUC), to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least five million zero emission vehicles on California roads by 2030 and of reducing emissions of greenhouse gases to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure.[62]

California Building Code – Building Energy Efficiency Standards: Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The CEC updates building energy efficiency standards in Title 24 (Parts 6 and 11) every three years to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements.[63]

In addition, the CEC adopted the 2022 Building Energy Efficiency Standards adopted on August 11, 2021 but they do not go into effect until January 1, 2023. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

California Building Code – CALGreen: On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR Part 11, known as 'CALGreen') was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water

[62] California Legislative Information, September 14, 2018, AB-2127 Electric Vehicle Charging Infrastructure: Assessment, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2127, accessed on August 21, 2026.

[63] California Energy Commission (CEC). 2018. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. https://www.nbcnews.com/news/us-news/california-becomes-first-state-require-solar-panels-new-homes-n872531, accessed on August 21, 2026.

conservation, material conservation, and internal air contaminants.[64] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011 and were last updated in 2019. The 2019 CALGreen standards became effective January 1, 2020. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Short-Lived Climate Pollutants

SB 1383: On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use. In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Ozone Depleting Substances (ODSs)

Refrigerant Management Program: As part of implementing AB 32, CARB also adopted a Refrigerant Management Program in 2009. The Refrigerant Management Program is designed to reduce GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal.

HFC Emission Reduction Measures for Mobile Air Conditioning – Regulation for Small Containers of Automotive Refrigerant: The Regulation for Small Containers of Automotive Refrigerant applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. Emission reductions are achieved through implementation of four requirements: 1) use of a self-sealing valve on the container; 2) improved labeling instructions; 3) a deposit and recycling program for small containers; and 4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010 with a one-year sell-through period for containers manufactured before January 1, 2010. The target recycle rate is initially set at 90 percent and rose to 95 percent beginning January 1, 2012.

3.2.2.2.3 South Coast AQMD

The South Coast AQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the South Coast AQMD to consider global impacts in rulemaking and in drafting revisions to the AQMP. In March 1992, the South Coast

[64] California Building Standards Commission, 2022. CalGreen as promulgated in the California Code of Regulations, Title 24, Part 11 (24 CCR Part 11). https://www.dgs.ca.gov/BSC/CALGreen.

AQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include support of the adoption of a California GHG emission reduction goal.

Basin GHG Policy and Inventory: The South Coast AQMD has established a policy, adopted by the South Coast AQMD Governing Board at its September 5, 2008 meeting, to actively seek opportunities to reduce emissions of criteria, toxic, and climate change pollutants. The policy includes the intent to assist businesses and local governments implementing climate change measures, decrease the agency's carbon footprint, and provide climate change information to the public.

3.2.2.2.3.1 Ozone Depleting Substances (ODSs)

Policy on Global Warming and Stratospheric Ozone Depletion: The South Coast AQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy targeted a transition away from CFCs as an industrial refrigerant and propellant in aerosol cans. In March 1992, the South Coast AQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives for ODSs:

- Phase out the use and corresponding emissions of CFCs, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995.
- Phase out the large quantity use and corresponding emissions of HCFCs by the year 2000.
- Develop recycling regulations for HCFCs.
- Develop an emissions inventory and control strategy for methyl bromide.

CHAPTER 4

ENVIRONMENTAL IMPACTS

Introduction and Background

Potential Significant Air Quality and Greenhouse Gas Impacts and Mitigation Measures

Significant Environmental Effects Which Cannot be Avoided

Potential Environmental Impacts Found Not to be Significant

Potential Growth-Inducing Impacts

Relationship Between Short-Term and Long-Term Environmental Goals

4.0 INTRODUCTION AND BACKGROUND

The CEQA Guidelines require environmental documents to identify significant environmental effects that may result from a proposed project. [CEQA Guidelines Section 15126.2(a)]. Direct and indirect significant effects of a project on the environment should be identified and described, with consideration given to both short- and long-term impacts. The discussion of environmental impacts may include, but is not limited to, the following: resources involved; physical changes; alterations of ecological systems; health and safety problems caused by physical changes; and other aspects of the resource base, including water, scenic quality, and public services. If significant adverse environmental impacts are identified, the CEQA Guidelines require a discussion of measures that could either avoid or substantially reduce any adverse environmental impacts to the greatest extent feasible. [CEQA Guidelines Section 15126.4].

The categories of environmental impacts to be studied in a CEQA document are established by CEQA (Public Resources Code Section 21000 et seq.), and the CEQA Guidelines, as codified in Title 14 California Code of Regulations Section 15000 et seq. Under the CEQA Guidelines, there are approximately 18 environmental categories in which potential adverse impacts from a project are evaluated. The South Coast AQMD, as lead agency, has adapted the environmental checklist form in Appendix G of the CEQA Guidelines, and developed a customized environmental checklist that reorganizes the questions based on topic area and removes redundancies. For example, the "air quality" and "greenhouse gas emissions" topics have been merged into one section, the "cultural resources" and "tribal cultural resources" topics have been merged into one section, the "hazards and hazardous materials" topic has been separated into two sections: "hazards and hazardous materials" and "solid and hazardous waste", and the questions under the "utilities/service systems" topic have been distributed to other environmental topics such as "energy", "hydrology and water quality", and "solid and hazardous waste." For each environmental topic area, per CEQA Guidelines Section 15064.7(a), "a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." The South Coast AQMD has developed unique thresholds of significance for the determination of significance in accordance with CEQA Guidelines Section 15064.7(b).

Proposed Project and Focus of Environmental Effects and Analysis

PAR 1168 is the latest update to Rule 1168 which included technology assessment requirements in its amendments in 2017 and 2022. The purpose of the October 2017 amendments to Rule 1168 was to reduce emissions of VOCs by 1.38 tpd, as well as reduce toxic air contaminants and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The October 2017 Final EA for Rule 1168 analyzed the environmental impacts associated with establishing more stringent VOC limits for several product categories with an effective date of January 1, 2023, and the activities manufacturers were anticipated to undertake to reformulate products; determining that these reformulation activities could create secondary adverse environmental impacts. None of the environmental topic areas previously analyzed in the October 2017 Final EA for Rule 1168 were concluded to have significant and unavoidable impacts, including the topic of air quality and GHGs.

The October 2017 amendments to Rule 1168 also included a commitment to conduct a technology assessment for top and trim adhesives, roofing products, plastic welding cements, and foam sealants to determine if products with compliant VOC contents for nine adhesive and sealant categories would be available by January 1, 2023. The 2022 technology assessment for Rule 1168 concluded that some of these product categories either needed more time beyond January 1, 2023, to meet the VOC limits or that achieving the lower VOC limits would not be technically feasible.

In addition, due to potential toxicity concerns associated with t-BAc and pCBtF and the uncertainty of on-site exposure modeling methodologies, the Stationary Source Committee of the South Coast AQMD Governing Board recommended prohibiting the exemption of compounds with a known or suspected toxic endpoint from the definition of VOC in Rule 102 or other South Coast AQMD rules. While not the case with Rule 1168, t-BAc was previously granted a partial exemption from the definition of a VOC for certain uses in various coatings rules such as Rule 1113 – Architectural Coatings, and Rule 1151 – Automotive Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations. However, in 2017, t-BAc was identified as a carcinogen. Further, in 2020, pCBtF was identified as a stronger carcinogen than t-BAc, after it had been previously exempted from the definition of a VOC in Rule 102 for all uses within the South Coast AQMD, including adhesives and sealants that would otherwise be subject to Rule 1168 requirements.

Thus, based on the results of the 2022 technology assessment and the recommendation of the Stationary Source Committee of the South Coast AQMD Governing Board, Rule 1168 was amended in November 2022 which: 1) prohibited the use of pCBtF and t-BAc due to toxicity concerns; 2) either delayed the effective dates of VOC emission limits or maintained the existing VOC emission limits for certain categories of adhesives and sealants; 3) created additional subcategories of Regulated Products to better characterize and refine VOC emission limits; 4) allowed Opteon 1100 (cis-1,1,1,4,4,4-hexafluoro-2-butene/HFO-1336mzz-Z) to qualify as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an evaluation by OEHHA; and 5) removed definitions and updated, clarified, and streamlined rule language. The environmental impacts associated with the November 2022 version of Rule 1168 were analyzed in the November 2022 Final SEA for Rule 1168. The types of activities and associated environmental impacts associated with implementing the VOC limits and compliance dates subject to the October 2017 Rule 1168 amendments were compared to the November 2022 version of Rule 1168; the November 2022 Final SEA for Rule 1168 concluded that the type and extent of the anticipated physical changes would be similar and would cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the October 2017 Final EA for Rule 1168 except for the topic of air quality and GHG emissions. Specifically, the November 2022 Final SEA for Rule 1168 concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts due to delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term. No feasible mitigation measures were identified that would avoid or lessen these significant air quality impacts.

As explained in Chapter 2, PAR 1168 has been mainly developed to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations, and to delay the effective

date of VOC emission limits for three categories of adhesives and sealants to allow more time for manufacturers to reformulate their products; these key components have the potential to result in adverse air quality impacts.

In addition, PAR 1168 contains the following other changes, which are administrative in nature: 1) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; 2) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 3) require manufacturers to provide a list of their distributors annually; 4) transition reporting to a recordkeeping requirement for distributors; 5) include a new category for battery adhesives with an extended pCBtF prohibition date; and 6) provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. However, these administrative components of PAR 1168 are not expected to contribute to any secondary adverse environmental impacts for air quality or any other environmental topic area. Thus, the analysis in this SEA focuses on only the portion of PAR 1168 relating to the potential adverse environmental impacts associated with extending the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations, and delaying the effective date of VOC emission limits for three categories of adhesives and sealants.

Overall, the nature, type and extent of the physical changes (e.g., activities associated with reformulation) that would be associated with PAR 1168 will have similar secondary adverse environmental impacts for the same environmental topic areas that were identified and previously analyzed in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

The key differences between the October 2017 and November 2022 versions of Rule 1168 and PAR 1168 are about the status of reformulation of various adhesives and sealants, and when VOC emission reductions will occur according to the prescribed effective dates of the VOC content limits. In particular, PAR 1168 will: 1) extend the effective dates for certain categories of adhesives and sealants to meet the VOC limits due to the lack of available technology on the market; and 2) delay the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives in response to the technology assessment which determined that the originally prescribed phaseout dates are not feasible.

The October 2017 version of Rule 1168 anticipated an overall net air quality benefit in the form of VOC emission reductions due to the anticipated reformulations of various adhesives and sealants according to the corresponding VOC emission limits and prescribed effective dates. The November 2022 version of Rule 1168 delayed the effective dates for certain categories of adhesives and sealants which resulted in a reduced air quality benefit than what was originally anticipated by the October 2017 version of Rule 1168. Currently, the non-administrative changes to PAR 1168 are also expected to have the same or similar effects that were previously examined in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, because PAR 1168 will result in product reformulations and additional delayed VOC emission reductions, which will be more severe than what was discussed in November 2022 Final SEA for Rule 1168. In addition, by extending the pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives in PAR 1168, the toxicity-related benefits associated with implementing the

phaseout of pCBtF would be delayed when compared to the November 2022 version of Rule 1168. Thus, PAR 1168 contains new information of substantial importance relative to the topic of air quality which was not known and could not have been known at the time the November 2022 Final SEA for Rule 1168 was certified. [CEQA Guidelines Section 15162(a)(3)].

The purpose of this SEA, and this chapter in particular, is to compare the types of activities and associated environmental impacts with implementing the VOC limits and effective dates established in the October 2017 and November 2022 versions of Rule 1168 that were previously analyzed in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, to the currently proposed changes which comprise PAR 1168.

The CEQA Guidelines indicate that the degree of specificity required in a CEQA document depends on the type of project being proposed. [CEQA Guidelines Section 15146]. However, the detail of the environmental analysis for certain types of projects cannot be as great as for others. As discussed earlier in Chapter 1, this SEA tiers off of the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168. Moreover, for this SEA, the baseline is the project analyzed in the October 2017 Final EA for Rule 1168. Lastly, because PAR 1168 proposes to amend an existing rule, this SEA is required to contain the environmental analysis required by CEQA Guidelines Section 15187 which specifically pertains to the environmental review of rules and regulations.

Because PAR 1168 contains changes that would only adversely impact the environmental topic area of air quality, the focus of this SEA analysis is relative to the potentially significant adverse impacts specific to the topic of air quality. The analysis of the potentially significant air quality impacts in this chapter incorporates a "worst-case" approach. This approach entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method ensures that all potential effects of PAR 1168 are documented for the decision-makers and the public.

In addition, this chapter independently considers whether PAR 1168 would result in new significant impacts for any of the other environmental topic areas previously concluded in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 to have either no significant impacts or less than significant impacts; however, none were identified. See Section 4.3 of this chapter for a description and the basis for this conclusion.

4.1 POTENTIAL SIGNIFICANT AIR QUALITY AND GREENHOUSE GAS IMPACTS AND MITIGATION MEASURES

This chapter independently considers the currently proposed project (PAR 1168) and analyzes the incremental changes, if any, relative to the baseline established in the October 2017 Final EA for Rule 1168. As discussed in Section 4.0, the October 2017 Final EA for Rule 1168 previously analyzed air quality and GHG impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that less than significant adverse impacts to air quality and GHG emissions would occur. Five years later, the November 2022 Final SEA for Rule 1168 evaluated air quality and

GHG emissions impacts associated with the November 2022 version of Rule 1168 and concluded that the November 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts, because the delayed VOC emission reductions of 0.42 tpd over the short-term and the permanent VOC emission reductions foregone of 0.28 tpd over the long-term would exceed South Coast AQMD air quality significance threshold for mass daily emissions of VOCs during operation. No feasible mitigation measures were identified that would avoid or lessen these significant air quality impacts.

Thus, this section evaluates the potential air quality and GHG emission impacts for PAR 1168 and compares the previous air quality and GHG emission impacts analysis conducted in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168.

4.1.1 Significance Criteria

To determine whether air quality and GHG impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the significance criteria on the following page. The significance thresholds for criteria pollutant emissions: the mass daily thresholds were developed in 1993, and a full discussion can be found in the South Coast AQMD CEQA Handbook. Significance thresholds for toxic air contaminants and odor are based on requirements in Rules 1401, 212, and 402. In December 2008, the Governing Board approved an interim GHG significance threshold for projects where the South Coast AQMD is the lead agency. The history about the development of the various significance thresholds and feasible mitigation measures are available on the South Coast AQMD website.[93] Significance determinations for construction impacts are based on the maximum or peak daily emissions during the construction period, which provides a "worst-case" analysis of the construction emissions. Similarly, significance determinations for operational emissions are based on the maximum or peak daily emissions during the operational phase.

The proposed project will have significant adverse air quality impacts if any one of the thresholds in Table 4-1 are equaled or exceeded.

[93] South Coast AQMD, 1993. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.

Table 4-1
South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction**	**Operation**
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [b]		
NO_2 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 μg/m^3 (construction)[c] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction)[c] & 2.5 μg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal)	

[a] Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)
[b] Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO_2eq = metric tons per year of CO_2 equivalents > = greater than

Revision: March 2023

Project-Specific Air Quality Impacts During Construction

The November 2022 Final SEA for Rule 1168 evaluated construction-related air quality impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that compliance with the November 2022 version of Rule 1168 was not expected to require physical changes or modifications that would involve construction activities because the manufacture of products reformulated to comply with the VOC limits in the November 2022 version of Rule 1168 was expected to use the same or similar equipment utilized to manufacture products formulated to comply with the VOC limits contained in the October 2017 version of Rule 1168.

PAR 1168 proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; 3) include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; 4) delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; 5) require manufacturers to provide a list of their distributors annually; 6) transition reporting to a recordkeeping requirement for distributors; 7) include a new category for battery adhesives with an extended pCBtF prohibition date; and 8) provide clarifications, updates to definitions and cross references to maintain consistency with other South Coast AQMD rules. Similar to the November 2022 version of Rule 1168, PAR 1168 does not require construction of new buildings, or relocation of existing manufacturing facilities or equipment. Instead, for certain categories of Regulated Products, PAR 1168 would delay the effective dates for meeting the applicable VOC limits and extend the deadlines for phasing out pCBtF. As with the November 2022 version of Rule 1168, the manufacture of products reformulated to comply with the requirements in PAR 1168 is expected to use the same or similar equipment currently utilized to manufacture products formulated to comply with the VOC limits contained in the October 2017 version of Rule 1168. Therefore, consistent with the November 2022 version of Rule 1168, compliance with PAR 1168 is not expected to require physical changes or modifications that would involve construction activities. As a result, no construction air quality impacts are expected from PAR 1168. **Based upon these considerations, no adverse air quality impacts relating to construction are expected from implementing PAR 1168.**

Project-Specific Air Quality Impacts During Operation

Air Pollutants

The purpose of Rule 1168 is to minimize VOC emissions, a precursor to the criteria air pollutant ozone, from area sources, specifically adhesives and sealants, by establishing VOC limits and effective dates for the various product categories. Rule 1168 was amended in October 2017 to

reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers.

Rule 1168 was later amended in November 2022 to delay the effective dates of and/or increase VOC limits for certain categories of adhesives, sealants, adhesive primers, and sealant primers where the technology assessment demonstrated the effective dates or VOC limits in the October 6, 2017 version of Rule 1168 were not feasible. The November 2022 amendments to Rule 1168 also created new subcategories of Regulated Products to better characterize and refine VOC emission limits; prohibited the use of t-BAc and pCBtF due to toxicity concerns; allowed Opteon 1100 as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon an OEHHA evaluation; and updated, clarified, and streamlined rule language. The November 2022 Final SEA for Rule 1168 estimated 0.42 tpd (equivalent to 840 pounds per day) of delayed VOC emission reductions from extending the final effective dates of the VOC limits, and 0.28 tpd (equivalent to 560 pounds per day) of permanent VOC emission reductions foregone from reverting to the higher VOC limit in place prior to the October 2017 amendments to Rule 1168 for certain categories of Regulated Products.

PAR 1168 has been developed to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for manufacturers to reformulate; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules.

Table 4-2 presents a summary of VOC limits, effective dates, and the estimated delayed VOC emission reductions for PAR 1168. It should be noted that the delayed VOC emission reductions due to PAR 1168 are estimated using scaled sales volume data collected from the Quantity and Emission Report (QER) 2021 and 2022, the proposed VOC limits, and the VOC limits in the October 2017 version of Rule 1168 for different categories of Regulated Products. The manufacturer and private labelers submitted the first QERs for the 2021 and 2022 period on September 1, 2023.

Table 4-2 also presents the VOC content limits, effective dates, and the corresponding delayed VOC emission reductions for various categories and subcategories of adhesives and sealants due to the implementation of the November 2022 Version of Rule 1168 relative to the October 2017 version of Rule 1168.

Table 4-2
Proposed Changes in PAR 1168 and Estimated Delayed VOC Emission Reductions

Adhesive and Sealant Category	VOC limit (g/L) Prior to 2017	VOC Limit(g/L) Amended in 2017	Subcategory		VOC limit		Effective Date		Delayed VOC Emission Reductions(tpd)	
			November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168*	PAR 1168
Top and Trim Adhesive	540	250	N/A		250 g/L		1/1/2028	1/1/2030	0.1 through 1/1/2028	0.115 through 1/1/2030
Foam Sealant	250	50	One-Component		18% VOC by weight		7/1/2023	7/1/2023	0.01 through 7/1/2023	--
			High-Pressure Two-Component		5% VOC by weight		1/1/2023	1/1/2023	--	--
			Low-Pressure Two-Component		5% VOC by weight		1/1/2023	1/1/2023	--	--
PVC Welding Cement	510	425	N/A		425 g/L		1/1/2023	1/1/2023	--	--
CPVC Welding Cement	490	400	CPVC Welding Cement		400 g/L		1/1/2023	1/1/2023	--	--
			CPVC Welding Cement for Life Safety Systems		490 g/L		N/A	N/A	--	--
			Higher Viscosity CPVC Welding Cement		400 g/L		7/1/2024	7/1/2024	0.01 through 7/1/2024	--
All Other Roof Adhesives	250	200	All Other Roof Adhesives		250 g/L		11/4/2022	11/4/2022	--	
			Shingle Laminating Adhesive		30 g/L		1/1/2023	1/1/2023	--	--
			Hot Applied Modified Bitumen/Built Up Roof Adhesive		30 g/L		1/1/2023	1/1/2023	--	--
Single Ply Roof Membrane Adhesive	250	200	EPDM/TPO Single Ply Roof Membrane Adhesive		250 g/L		11/4/2022	11/4/2022	--	--
			Single Ply Roof Membrane Adhesive (Except EPDM/TPO)							
All Other Roof Sealants	300	250	N/A		300 g/L		11/4/2022	11/4/2022	--	--

* Delayed VOC emission reductions associated with the November 2022 amendments to Rule 1168 were estimated using the scaled sales volume data collected from the QER 2017 and 2018, the VOC limits in the November 2022 version of Rule 1168, and the VOC limits from the October 2017 version of Rule 1168 for the various categories of Regulated Products. The delayed emission reductions calculated in the November 2022 Final SEA for Rule 1168 have not been recalculated using the 2021 and 2022 QER data because doing so would not change the magnitude or conclusion regarding the potentially significant impacts associated with PAR 1168, as the duration of the potentially significant impacts associated with PAR 1168 extends beyond the timeframe estimated in the November 2022 Final SEA for Rule 1168.

Table 4-2 (concluded)
Proposed Changes under PAR 1168 and Estimated Delayed VOC Emission Reductions

Adhesive and Sealant Category	VOC limit (g/L) Prior to 2017	VOC Limit (g/L) Amended in 2017	Subcategory		VOC limit		Effective Date		Delayed VOC Emission Reductions(tpd)	
			November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168	PAR 1168	November 2022 Version of Rule 1168*	PAR 1168
Clear, Paintable, Immediately Water-Resistant Sealant	380	250	N/A		250 g/L		1/1/2026	1/1/~~2028~~2029	0.007 through 1/1/2026	0.011 through 1/1/~~2028~~2029
Rubber Vulcanization Adhesive	850	250	N/A		250 g/L		1/1/2028	1/1/2029	0.29 through 1/1/2028	0.02 through1/1/2029
Cut Edge Single Ply Roof Membrane Sealant	450	250	Cut Edge Single Ply Roof Membrane Sealant		250 g/L		1/1/2023	1/1/2023	--	--
			Single Ply Roof Membrane Sealant (Except Cut Edge)							
								TOTAL	**-0.42 through 7/1/2023** **-0.41 from 7/1/2023 to 7/1/2024** **-0.40 from 7/1/2024 to 1/1/2026** **- 0.39 from 1/1/2026 till 1/1/2028**	**-0.146 through 1/1/~~2028~~2029** **~~-0.135 from 1/1/2028 to 1/1/2029~~** **-0.115 from 1/1/2029 to 1/1/2030**

* Delayed VOC emission reductions associated with the November 2022 amendments to Rule 1168 were estimated using the scaled sales volume data collected from the QER 2017 and 2018, the VOC limits in the November 2022 version of Rule 1168, and the VOC limits from the October 2017 version of Rule 1168 for the various categories of Regulated Products. The delayed emission reductions calculated in the November 2022 Final SEA for Rule 1168 have not been recalculated using the 2021 and 2022 QER data because doing so would not change the magnitude or conclusion regarding the potentially significant impacts associated with PAR 1168, as the duration of the potentially significant impacts associated with PAR 1168 extends beyond the timeframe estimated in the November 2022 Final SEA for Rule 1168.

Conclusion – Air Pollutants: As shown in Table 4-2, the delayed VOC emission reductions associated with PAR 1168 would extend beyond the period analyzed in the November 2022 Final SEA for Rule 1168. The November 2022 Final SEA for Rule 1168 originally estimated that the November 2022 version of Rule 1168 would result in delayed VOC emission reductions of 0.39 tpd through January 1, 2028. Meanwhile, PAR 1168 would result in delayed VOC emission reductions of 0.146 tpd through January 1, ~~2028~~2029; ~~followed by 0.135 tpd from January 1, 2028, through January 1, 2029;~~ and 0.115 tpd from January 1, 2029, through January 1, 2030. Thus, compared to the November 2022 version of Rule 1168, PAR 1168 would extend the period during which VOC emission reductions are delayed by approximately two years. Therefore, the extended duration of delayed VOC emission reductions that would occur as a result of PAR 1168 would create more severe operational air quality impacts than what was analyzed in the November 2022 Final SEA for Rule 1168, and the delayed VOC emission reductions that would occur as a result of PAR 1168 would exceed the South Coast AQMD air quality significance threshold for mass daily operational VOCs of 55 pounds per day.

It is important to note that PAR 1168 does not seek to change the existing VOC limits established in the November 2022 version of Rule 1168. However, PAR 1168 includes a new category of Battery Adhesives with VOC limit of 120 g/L which is less than the current VOC limit of 250 g/L established for the "All Other Adhesives" category. However, no change in VOC emissions is expected from establishing a specific VOC limit for Battery Adhesives because the products are already at or less than the 120 g/L limit. Therefore, no permanent VOC emission reductions foregone are expected from PAR 1168.

Based upon preceding discussion, the peak daily VOC operational impacts associated with the delayed VOC emission reductions from implementing PAR 1168 are significant. PAR 1168 is expected to generate significant adverse air quality impacts during operation.

It is important to note that the focus of PAR 1168 is the VOC content of adhesive and sealants. Emissions of other criteria pollutants such as NOx, CO, SOx, PM10, and PM2.5 are typically associated with combustion activities which are not affected by PAR 1168. **Thus, PAR 1168 will have no significant air quality impacts associated with NOx, CO, SOx, PM10, and PM2.5 emissions.**

Project-Specific Mitigation: If significant adverse environmental impacts are identified, the CEQA document shall describe feasible measures that could minimize or eliminate the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures for reducing VOC impacts associated with PAR 1168 are required. However, the reason PAR 1168 is revising the effective dates of VOC emissions limits for certain categories of adhesives and sealants is because the technology assessment concluded that there are no other replacement products currently available that can feasibly attain the existing VOC limits by the effective dates established in the November 2022 version of Rule 1168. **Based upon this technological limitation, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels**.

Since no significant operational air quality impacts relating to NOx, CO, SOx, PM10, and PM2.5 emissions were identified, no mitigation measures are necessary or required for these pollutants.

Remaining Air Pollutant Impacts: While operational air quality impacts for VOC emissions are expected to be significant, no feasible mitigation measures have been identified that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. **Therefore, operational air quality impacts for VOC emissions are significant and unavoidable**.

Toxic Air Contaminants

The purpose of Rule 1168 is to minimize VOC emissions, a precursor to the formation of the criteria air pollutant ozone, from adhesives and sealants by establishing VOC limits and effective dates for the various product categories. The November 2022 Final SEA for Rule 1168 analyzed the potential toxic air contaminant impacts associated with: 1) delaying the effective dates of and/or increasing the VOC limits for certain categories of adhesives, sealants, adhesive primers, and sealant primers that were identified in the technology assessment as not able to feasibly meet the VOC limits according to the timeline established in the October 2017 version of Rule 1168; 2) creating new subcategories of Regulated Products to better characterize and refine VOC emission limits; 3) prohibiting the use of t-BAc and pCBtF due to toxicity concerns; and 4) allowing Opteon 1100 as a VOC-exempt compound for Two-Component Foam Sealants used in an industrial or professional setting, contingent upon an OEHHA evaluation.

The analysis in the November 2022 Final SEA for Rule 1168 concluded less than significant impacts from toxic air contaminants because: 1) the prohibition of t-BAc and pCBtF, which are carcinogenic compounds with high cancer potency factors, was expected to reduce the overall toxic profile of adhesives and sealants (mainly roofing products) and result in an overall air quality benefit; 2) the reformulation of roofing products was not expected to be necessary since a wide variety of roofing products without pCBtF and t-BAc were commercially available and in use; and 3) the potential future replacement of currently used hydrofluoroolefins (HFOs) in Two-Component Foam Sealants with Opteon 1100 was not expected to increase the overall toxic profile of this category of products because the ability to use Opteon 1100 was contingent upon: a) specific toxicity criteria; and b) the completion of an OEHHA evaluation which does not result in OEHHA adopting a Cancer Inhalation Unit Risk Factor for Opteon 1100 or developing acute and chronic reference exposure levels (RELs), or interim RELs, that are greater than or equal to the corresponding RELs for HFO-1233zd, a commonly used HFO in Two-Component Foam Sealants.

PAR 1168 proposes to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. Under PAR 1168, the same VOC limits and pCBtF phaseout requirements adopted in the November 2022 version of Rule 1168 would continue to apply to the category of Roof Adhesive Primers and Battery Adhesives, but the effective dates would be extended, resulting in a delayed air quality benefit associated with reducing the potential exposure to pCBtF. However, consistent

with the November 2022 version of Rule 1168, the general requirement to phaseout pCBtF would remain in place under PAR 1168 so the air quality benefit will be eventually realized over a longer time horizon. In addition, 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 dimethyl carbonate (DMC) in concentrations greater than 0.01 percent by weight or VMS in concentrations greater than ~~0.1~~1.0 percent by weight, thereby providing an additional benefit of reduced toxicity. Therefore, the previous conclusion of less than significant toxic air contaminants reached in the November 2022 Final SEA for Rule 1168 remains applicable to PAR 1168.

Conclusion – Toxic Air Contaminants: Although PAR 1168 would delay the air quality benefit associated with reducing toxics as a result of phasing out pCBtF for certain categories of Regulated Products, the phaseout would eventually occur under the extended deadlines. **Therefore, less than significant impacts from toxic air contaminants during operation are expected.**

Project-Specific Mitigation: Since no significant operational air quality impacts relating to emissions of toxic air contaminants were identified, **no mitigation measures are necessary or required.**

Remaining Toxic Air Contaminant Impacts: Operational air quality impacts for toxic air contaminants are expected to be less than significant such that no mitigation measures are necessary or required. **Therefore, operational air quality impacts for toxic air contaminants remain less than significant**.

Odor Impacts

The CEQA significance threshold for odor is whether the project has the potential to create an odor nuisance pursuant to South Coast AQMD Rule 402. Odor problems depend on individual circumstances. For example, individuals can differ quite markedly from the populated average in their sensitivity to odor due to any variety of innate, chronic or acute physiological conditions. This includes olfactory adaptation or smell fatigue (i.e., continuing exposure to an odor usually results in a gradual diminution or even disappearance of the smell sensation).

The November 2022 Final SEA for Rule 1168, which analyzed potential odor impacts associated with prohibiting pCBtF and t-BAc, and the resulting potential reformulation of adhesives and sealants, concluded that the prohibition of pCBtF and t-BAc was not expected to cause widespread odor issues associated with reformulation of adhesives and sealants, if any, because a substantial number of other products were commercially available and in use that do not contain pCBtF and t-BAc. In addition, the November 2022 Final SEA for Rule 1168 concluded that if manufacturers elected to reformulate certain adhesive and sealant products, it would be speculative to determine whether any new odor impacts from the reformulated products would occur relative to the existing odor profile of products currently available and in use. The November 2022 Final SEA for Rule 1168 also considered what would happen if the rule was amended to revert to the pre-2017 VOC limits for some categories of adhesives and sealants and the analysis concluded that manufacturers, suppliers, and distributors would revert to products that were and would continue to be commercially available and in use elsewhere outside of the South Coast AQMD jurisdiction. Based upon these considerations, the November 2022 Final SEA for Rule 1168 concluded that no change

or less than significant changes in odor profiles were expected and that the November 2022 version of Rule 1168 would not create objectionable odors affecting a substantial number of people.

PAR 1168 proposes to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. Under PAR 1168, the same VOC limits and pCBtF phaseout requirements presented in the November 2022 version of Rule 1168 would continue to apply, but the dates by which certain categories would be required to comply with those requirements would be extended. Therefore, the analysis of potential odor impacts presented in the November 2022 Final SEA remains applicable to PAR 1168. As with the November 2022 version of Rule 1168, it is not possible to reasonably determine whether any changes in odor profiles would occur because the specific formulations that may be used in the future are unknown. Accordingly, no changes or less than significant changes in odor profiles of adhesives and sealants in response to PAR 1168 are expected, such that PAR 1168 will not be expected to create objectionable odors affecting a substantial number of people. Local governments also typically have ordinances that are intended to protect the public from adverse odors. South Coast AQMD Rule 402 – Nuisance, also protects the public from adverse odor impacts. In manufacturing, ventilation systems connected to air pollution control equipment as well as employees being required to wear personal protective equipment (PPE) are two common ways to protect on-site and off-site receptors from odors and PAR 1168 has no provisions that would require a change to the existing ventilation systems, air pollution control equipment, or requirements associated with PPE. Thus, compliance with PAR 1168 is not expected to require physical changes or modifications that would involve construction activities.

Conclusion – Odors: Since PAR 1168 is not expected to require or involve construction activities, no impacts to odors during construction will occur. **During operation, less than significant odor impacts are expected from PAR 1168.**

Project-Specific Mitigation: Since no odor impacts were identified for construction and less than significant odor impacts were identified for operation, no mitigation measures are necessary or required.

Remaining Odor Impacts: With no odor impacts identified during construction and less than significant odor impacts identified during operation, no mitigation measures are necessary or required. **Thus, the air quality impacts relative to odors remain less than significant**.

4.1.2 Cumulative Air Quality Impacts

Pursuant to CEQA Guidelines Section 15130(a), the SEA shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. In general, the preceding analysis concluded that air quality impacts from operation activities would be significant

from implementing the proposed project because the South Coast AQMD's significance thresholds for operation will be exceeded for VOC emissions. In addition, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. Thus, the air quality impacts due to operations are cumulatively considerable pursuant to CEQA Guidelines Section 15064(h)(1) and therefore, generate significant adverse cumulative air quality impacts.

The analysis also indicates that the proposed project will not involve any construction activities and emissions. Moreover, there will be less than significant increases to health risk and odor impacts. Pursuant to CEQA Guidelines Section 15130(a)(2), when the combined cumulative impact associated with the project's incremental effect is not significant, the SEA must indicate why the cumulative impact is not significant. Because construction emissions, odor impacts, and health risks do not exceed the air quality significance thresholds, which also serve as the cumulative significance thresholds, they are not considered to be cumulatively considerable [CEQA Guidelines Section 15064 (h)(1)].

This identical standard is appropriate because the South Coast AQMD air quality significance thresholds for criteria pollutants were set by evaluating the effect an individual project may have on the ability of the South Coast Air Basin to attain the NAAQS established by the U.S. EPA, and are therefore, cumulative in nature. Specifically, the South Coast AQMD Governing Board adopted 1993 CEQA Air Quality Handbook, which identified that the thresholds for criteria pollutants are based on the emissions levels in the Clean Air Act for a major source in an area designated as extreme non-attainment for ozone. [1993 CEQA Handbook, Chapter 6]. So, for example, a major source of VOCs, a precursor for ozone, is defined as a source that has a potential to emit at least 10 tons per year of VOCs [Clean Air Act section 182(e)]. The South Coast AQMD converted the 10 tons per year in terms of pounds per day, which resulted in a significance threshold of 55 pounds per day for operational emissions. The 1993 CEQA Handbook also explains that this approach is appropriate because the regulatory framework to establish the state and federal ambient air quality standards, and the method to achieve attainment of those standards, are intended to be protective of public health.

Conclusion – Cumulative Air Quality Impacts: Similar to the November 2022 version of Rule 1168, the operational air quality impacts relative to VOCs are cumulatively considerable under PAR 1168, because: 1) the peak daily VOC operational impacts associated with delayed VOC emission reductions exceed the South Coast AQMD's significance threshold for VOC during operation; and 2) there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels.

Cumulative Mitigation: No feasible mitigation measures are available for PAR 1168 that would eliminate or reduce the cumulatively considerable operational air quality impacts for VOC emissions to less than significant levels.

Remaining Cumulative Air Quality Impacts: While operational air quality impacts for VOC emissions are cumulatively significant, no feasible mitigation measures have been identified that would eliminate or reduce the significant adverse operational air quality impacts for VOC emissions to less than significant levels. **Therefore, under PAR 1168, the cumulative operational air quality impacts for VOC emissions remain significant and unavoidable**.

4.1.3 Greenhouse Gas Impacts and Mitigation Measures

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects.[66]

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long time-frame. As a result, the South Coast AQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

The South Coast AQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significance thresholds to evaluate GHG impacts. On December 5, 2008, the South Coast AQMD adopted an interim CEQA GHG Significance Threshold for projects where South Coast AQMD is the lead agency (South Coast AQMD, 2008). This interim threshold is set at 10,000 metric tons of CO2 equivalent emissions (MT/yr of CO2eq). The South Coast AQMD prepared a "Draft Guidance Document – Interim CEQA GHG Significance Thresholds" that outlined the approved tiered approach to determine GHG significance of projects (South Coast AQMD, 2008, p. 3-10). The first two tiers involve: 1) exempting the project because of potential reductions of GHG emissions allowed under CEQA; and 2) demonstrating that the project's GHG emissions are consistent with a local general plan. Tier 3 proposes a limit of 10,000 MT/yr CO2eq as the incremental increase representing a significance threshold for projects where South Coast AQMD is the lead agency (South Coast AQMD, 2008, pp. 3-11). Tier 4 (performance standards) is yet to be developed. Tier 5 allows

[66] Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html.

offsets that would reduce the GHG impacts to below the Tier 3 brightline threshold. Projects with incremental increases below this threshold will not be cumulatively considerable.

The purpose of Rule 1168 is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from the application of adhesives, adhesive primers, sealants, and sealant primers because formulations of these products contain compounds that are primarily comprised of VOCs but can also contain toxics and stratospheric ozone-depleting compounds. The November 2022 Final SEA for Rule 1168 analyzed potential GHG impacts associated with the November 2022 version of Rule 1168 and concluded that adhesives and sealants were not known to contain GHG compounds such as HFCs, PFCs, and SF6 because these chemicals are typically used in refrigeration and fire suppression applications, and the November 2022 version of Rule 1168 did not contain limitations on the use of GHG compounds. The November 2022 Final SEA for Rule 1168 identified HFOs as the only known GHG compounds in adhesives and sealants subject to Rule 1168 and considered the potential use of Opteon 1100, which contains a foam blowing agent that is a GHG compound, as a replacement for currently used HFOs in certain Two-Component Foam Sealants. Because Opteon 1100, HFO-1234ze, and HFO-1233zd have similar low global warming potentials (GWP), the analysis in the November 2022 Final SEA for Rule 1168 concluded that the potential reformulation of Two-Component Foam Sealants with a different foam blowing agent, such as what is used in Opteon 1100, would not be expected to substantially change the overall GHG emissions associated with the use of these products. The November 2022 Final SEA also concluded that the prohibition of t-BAc and pCBtF would not affect GHG emissions because neither compound is considered a GHG pollutant. In addition, the November 2022 version of Rule 1168 did not contain any revisions that would require additional reductions of stratospheric ozone-depleting compounds. Because adhesives and sealants are not utilized in combustion activities, implementation of the November 2022 version of Rule 1168 was also not expected to result in construction or operational combustion-generated GHG emissions (e.g., CO2, CH4, N2O). Accordingly, the November 2022 Final SEA for Rule 1168 concluded less than significant GHG impacts for the November 2022 version of Rule 1168.

PAR 1168 proposes to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. Under PAR 1168, the same VOC limits and pCBtF phaseout requirements presented in the November 2022 version of Rule 1168 would continue to apply, but the dates by which certain categories would be required to comply with those requirements would be extended. As with the November 2022 version of Rule 1168, PAR 1168 does not propose limitations on the use of GHG compounds, and the prohibition of t-BAc and pCBtF would not affect GHG emissions because neither compound is considered a GHG pollutant. In addition, PAR 1168 does not propose any revisions that would require additional reductions of stratospheric ozone-depleting compounds. Lastly, because adhesives and sealants are not utilized in combustion activities, implementation of PAR 1168 is not expected to result in construction or operational combustion-generated GHG

emissions. Therefore, the previous conclusion of less than significant GHG impacts in the November 2022 Final SEA for Rule 1168 remains applicable to PAR 1168.

Conclusion – GHG Impacts: As with the November 2022 version of Rule 1168, PAR 1168 is not expected to generate GHG emissions either directly or indirectly, that may have a significant impact on the environment. Further, implementation of PAR 1168 would not be expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions since GHG emissions would not be impacted in any way by PAR 1168. **Thus, PAR 1168 will have less than significant GHG emissions impacts.**

Project-Specific Mitigation: Since less than significant GHG emissions impacts were identified, no mitigation measures are necessary or required.

Conclusion – Cumulative GHG Impacts: Since PAR 1168 will have less than significant GHG emissions impacts, GHG emissions impacts are not cumulatively considerable.

Remaining Cumulative GHG Impacts: Since less than significant GHG emissions impacts are expected from PAR 1168, the proposed project would not be cumulative considerable for GHG emissions. Therefore, no cumulative GHG emissions impacts remain.

4.2 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

CEQA Guidelines Section 15126(c) requires an environmental analysis to consider "any significant irreversible environmental changes which would be involved if the proposed action should be implemented." This SEA identified the topic of air quality during operation as the only environmental topic area with significant environmental effects due to the delayed VOC emission reductions of 0.146 tpd through January 1, ~~2028~~2029; ~~0.135 tpd from January 1, 2028 through January 1, 2029;~~ and 0.115 tpd from January 1, 2029 through January 1, 2030. The operational air quality impacts from PAR 1168, while temporary, cannot be feasibly mitigated due to the technological limitation of having no other replacement products currently available that can feasibly attain the existing VOC limits by the effective dates established in the November 2022 version of Rule 1168. Thus, implementation of PAR 1168 would result in a significant and unavoidable air quality impact.

4.3 POTENTIAL ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA requires this section of the SEA to identify the environmental topic areas that were analyzed and concluded to have no impacts or less than significant impacts if the proposed project is implemented. For the effects of a project that were determined not to be significant, CEQA Guidelines Section 15128 requires the analysis to contain a statement briefly indicating the reasons that various effects of a project were determined not to have significant impacts and were therefore not discussed in detail.

This subchapter of the SEA identifies the environmental topic areas that were previously analyzed in the October 2017 Final EA for Rule 1168 and concluded to have either less than significant

impacts or no impacts (e.g., aesthetics, agriculture and forestry resources; air quality and GHG emissions, biological resources; cultural resources; energy, geology and soils; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; solid and hazardous waste; and transportation and traffic). Moreover, this subchapter of the SEA identifies the environmental topic areas that were previously analyzed in the November 2022 Final SEA for Rule 1168 and concluded to have either less than significant impacts or no impacts (e.g., aesthetics, agriculture and forestry resources; air quality and GHG emissions, biological resources; cultural resources; energy, geology and soils; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; solid and hazardous waste; transportation and traffic; tribal cultural resources; and wildfire). It should be noted that since two new environmental topic areas of tribal cultural resources and wildfires were added to the CEQA Guidelines after the October 2017 Final EA for Rule 1168 was certified, the November 2022 Final SEA included analyses of these two environmental topic areas.

For all environmental topic areas except air quality and GHG emissions which is discussed and further analyzed in Sections 4.1 and 4.2 of this chapter, this section assesses whether these previously evaluated environmental topic areas in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 would be affected by PAR 1168.

Environmental Topic Areas Previously Concluded In the October 2017 Final EA and November 2022 Final SEA To Have No Impacts

The following environmental topic areas were previously analyzed and concluded in the October 2017 Final EA for Rule 1168 to have no impacts: aesthetics; agriculture and forestry resources; biological resources; cultural resources; energy; geology and soils; land use and planning; mineral resources; noise; population and housing; and recreation.

The November 2022 Final SEA for Rule 1168 independently considered the 2022 amendments to Rule 1168 and analyzed the incremental changes, if any, relative to the baseline which was the project analyzed in the October 2017 Final EA for Rule 1168. The analysis in the November 2022 Final SEA for Rule 1168 concluded that the incremental changes associated with implementing the 2022 amendments to Rule 1168 were not expected to alter the previous conclusions reached in the October 2017 Final EA for the environmental topic areas identified as having no impacts: aesthetics; agriculture and forestry resources; biological resources; cultural resources; energy; geology and soils; land use and planning; mineral resources; noise; population and housing; recreation; solid and hazardous waste; and transportation and traffic.

This SEA independently considers PAR 1168 and analyzes the incremental changes, if any, relative to the baseline which is the project analyzed in the October 2017 Final EA for Rule 1168. When comparing the types of activities and associated environmental impacts with implementing the VOC limits and the corresponding effective dates in the 2022 version of Rule 1168 as previously analyzed in the November 2022 Final SEA for Rule 1168 to the currently proposed project (PAR 1168), similar impacts to the same environmental topic areas that were previously analyzed are expected to occur for all of the environmental topic areas analyzed except air quality and GHG emissions which are discussed in Sections 4.1 and 4.2 of this chapter. For this reason, the incremental changes associated with implementing the proposed project will not be expected to alter the previous conclusions reached in the November 2022 Final SEA for Rule 1168 for the

environmental topic areas which were identified as having no impacts: aesthetics; agriculture and forestry resources; biological resources; cultural resources; energy; geology and soils; land use and planning; mineral resources; noise; population and housing; recreation; solid and hazardous waste; and transportation and traffic. Therefore, since no impacts to these environmental topic areas would occur if PAR 1168 implemented, they are not further evaluated in this SEA. A brief summary of the previous conclusions reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 as well as the reasoning why the no impact conclusions would remain the same for PAR 1168 is provided for each of the aforementioned environmental topic areas.

Aesthetics

The October 2017 Final EA for Rule 1168 previously analyzed aesthetics impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no aesthetics impacts would occur because: 1) no construction would be required to install new or modify existing structures that would obstruct or degrade scenic resources; 2) no light generating equipment would be required that would adversely affect day or nighttime views; and 3) any changes to the manufacturing process would occur inside the facility's buildings and do not affect the exterior of the structure.

The November 2022 Final SEA for Rule 1168 evaluated aesthetics impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. Consistent with the October 2017 Final EA for Rule 1168, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would not require construction activities to install new or modify existing structures and, therefore, would not require new light-generating equipment or cause changes to the visual profile of facility structures. Accordingly, the previous conclusion of no impact to aesthetics reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. As with the October 2017 and November 2022 versions of Rule 1168 and as explained in Section 4.1 of this chapter, PAR 1168 will also not require construction activities to install new or modify existing structures which means that PAR 1168 will also not require new light generating equipment or cause any changes in the visual profile of the facility structures. Therefore, the previous conclusion of no impact to aesthetics reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Agriculture and Forestry Resources

The October 2017 Final EA for Rule 1168 previously analyzed agriculture and forestry resources impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no agriculture and forestry resources impacts would occur since compliance with the October 2017 version of Rule 1168 would not result in the loss of forest land, conversion of farmland to non-agricultural use or conflict with zoning for agriculture use.

The November 2022 Final SEA for Rule 1168 evaluated agriculture and forestry resources impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would continue to involve manufacturing activities within the confines of the same existing facilities previously analyzed in the October 2017 Final EA for Rule 1168 and, therefore, would not require the use of forest land, the conversion of farmland to non-agricultural use, or conflict with zoning for agricultural use. Accordingly, the previous conclusion of no impact to agriculture and forestry resources reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, manufacturing of the adhesive and sealant products formulated to achieve the applicable VOC limits by their effective dates will occur within the confines of the same existing facilities as previously analyzed in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 and these ongoing manufacturing activities will not require the use of forest land, conversion of farmland to non-agricultural use or conflict with zoning for agriculture use. Therefore, the previous conclusion of no impact to agriculture and forestry resources reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Biological Resources

The October 2017 Final EA for Rule 1168 previously analyzed biological resources impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no biological resources impacts would occur because these activities would occur inside the boundaries of established industrial manufacturing facilities which have been previously cleared of vegetation and have already been paved for safety and fire prevention reasons and as such, would not result in or have the potential to result in the removal of vegetation with potential to support wildlife.

The November 2022 Final SEA for Rule 1168 evaluated biological resources impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. Consistent with the October 2017 Final EA for Rule 1168, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would continue to involve the manufacture of adhesive and sealant products within the boundaries of existing industrial facilities that had been previously cleared of vegetation and paved for safety and fire prevention purposes. Therefore, the 2022 amendments to Rule 1168 would not be expected to result in, or have the potential to result in, the removal of vegetation with the potential to support wildlife. Accordingly, the previous conclusion of no impact to biological resources reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. As with the October 2017 and November 2022 versions of Rule 1168, the manufacture of adhesive and sealant products will continue to occur within the boundaries of existing industrial facilities which have been previously cleared of vegetation and have already been paved for safety and fire prevention reasons. Thus, PAR 1168 would not be expected to result in or have the potential to result in the removal of vegetation with potential to support wildlife. Therefore, the previous conclusion of no impact to biological resources reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Cultural Resources

The October 2017 Final EA for Rule 1168 previously analyzed cultural and tribal cultural resource impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no cultural resources impacts would occur because there would be no construction-related activities to existing manufacturing facilities, and therefore no impacts to historical, cultural, paleontological, and archaeological resources.

The November 2022 Final SEA for Rule 1168 evaluated cultural resources impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. Consistent with the October 2017 Final EA for Rule 1168, the November 2022 Final SEA for Rule 1168

concluded that the 2022 amendments to Rule 1168 would not require construction-related activities at existing manufacturing facilities and, therefore, would not result in impacts to cultural resources or the disturbance of paleontological, archaeological, or historical resources. Accordingly, the previous conclusion of no impact to cultural resources reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, formulation of the adhesive and sealant products will not require any construction-related activities to existing manufacturing facilities, and there will be no expected impacts to historical or cultural resources, and no paleontological, archaeological, or historical resources disturbance. Therefore, the previous conclusion of no impact to cultural resources reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Energy

The October 2017 Final EA for Rule 1168 previously analyzed energy impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA concluded that no energy impacts would occur because manufacturing and reformulation of adhesive and sealant products would comply with any relevant existing energy conservation plans, create no need for new or substantially altered power or natural gas utility systems, create no significant adverse effects on peak and base period demands for electricity or other forms of energy, and cause no adverse effect on energy production or distribution infrastructures.

The November 2022 Final SEA for Rule 1168 evaluated energy impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168. Therefore, the November 2022 Final SEA for Rule 1168 concluded that the same reasoning supporting the conclusion of no energy impacts in the October 2017 Final EA for Rule 1168 also applied to the 2022 amendments to Rule 1168. Accordingly, the previous conclusion of no impact to energy reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay

the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168. Thus, the same reasoning for why the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 concluded that no energy impacts would occur also applies to PAR 1168. Therefore, the previous conclusion of no impact to energy reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Geology and Soils

The October 2017 Final EA for Rule 1168 previously analyzed geology and soils impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no geology and soils impacts would occur because reformulation of products would take place at existing manufacturing facilities without involving construction activities and therefore the October 2017 version of Rule 1168 would not:

1) Alter the exposure of people or property to geological and natural hazards;
2) Disrupt soil, change topography, erode beach sand or change existing siltation rates;
3) Require groundwork, earth moving activities, or cause new landslide effects or changes to unique geologic features; and
4) Require the installation of a new or modified septic tank, or alternative wastewater disposal system.

The November 2022 Final SEA for Rule 1168 evaluated geology and soils impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesives and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168. Similar to the October 2017 version of Rule 1168, the 2022 amendments to Rule 1168 would not: 1) alter the exposure of people or property to geological and natural hazards; 2) disrupt soil, change topography, erode beach sand, or change existing siltation rates; 3) require groundwork or earth-moving activities, or cause new landslide effects or changes to unique geologic features; or 4) require the installation of a new or modified septic tank or alternative wastewater disposal system. Accordingly, the previous conclusion of no impact to geology and soils reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are

expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168. Thus, the same reasoning for why the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 concluded that no geological and soils impacts would occur also applies to PAR 1168. Further, since no construction activities would be needed to implement PAR 1168, the same reasoning for why no geological and soils impacts would occur as listed in items 1) through 4) also apply to the proposed project. Therefore, the previous conclusion of no impact to geology and soils reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Land Use and Planning

The October 2017 Final EA for Rule 1168 previously analyzed land use and planning impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no impacts to present or planned land uses in the region would occur because reformulation of adhesives and sealant to meet the VOC limits would occur within the boundary of existing manufacturing facilities and:

1) Physical division of an established community would not be expected, no construction activities would be needed and no new developments in undeveloped areas would occur.
2) There would be no conflict with any applicable land use plan, policy, or regulation due to the absence of an agency with jurisdiction over the Rule 1168.

The November 2022 Final SEA for Rule 1168 evaluated land use and planning impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168. Similar to the October 2017 version of Rule 1168, the 2022 amendments to Rule 1168 would not: 1) physically divide an established community, require construction activities, or result in new developments in undeveloped areas; or 2) conflict with any applicable land use plan, policy, or regulation due to the absence of an agency with jurisdiction over Rule 1168. Accordingly, the previous conclusion of no impact to land use and planning reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred

with the October 2017 and November 2022 versions of Rule 1168. Thus, the same reasoning for why the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 concluded that no land use and planning impacts would occur as listed in items 1) and 2) also applies to PAR 1168. Therefore, the previous conclusion of no impact to land use and planning reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Mineral Resources

The October 2017 Final EA for Rule 1168 previously analyzed mineral resources impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no impacts to mineral resources would occur because compliance with the October 2017 version of Rule 1168 would not result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as gravel, asphalt, bauxite, gypsum, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The November 2022 Final SEA for Rule 1168 evaluated mineral resources impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168. Similar to the October 2017 version of Rule 1168, the 2022 amendments to Rule 1168 would not result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Accordingly, the previous conclusion of no impact to mineral resources reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168. Thus, the same reasoning for why the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 concluded no impacts on the demand or use of important minerals, such as those described above, also applies to PAR 1168. Therefore, the previous conclusion of no impact to mineral resources reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Noise

The October 2017 Final EA for Rule 1168 previously analyzed noise impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no noise impacts would occur because the October 2017 version of Rule 1168 would:

1) Not alter the manufacturing, distribution, or application of adhesives and sealants in any substantial way that would alter existing noise profile at the manufacturing facilities;
2) Comply with noise standards that have been established by Occupational Safety and Health Administration (OSHA) and California-OSHA to protect worker health at distribution and retail locations;
3) Not expose persons to or generate excessive ground borne vibration or ground borne noise level since no construction activities are expected; and
4) Not cause an increase periodic or temporary ambient noise levels in the vicinity of affected manufacturing facilities since compliance would neither require construction-related activities nor change the existing activities currently performed by persons who utilize adhesives and sealants subject to Rule 1168.

The November 2022 Final SEA for Rule 1168 evaluated noise impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168, with no expected changes in manufacturing, distribution, application, or noise profile characteristics. Since the 2022 amendments to Rule 1168 would not require physical modifications involving construction, no new periodic or temporary ambient noise level increases in the vicinity of affected facilities, excessive ground-borne vibration, or ground-borne noise levels would be expected. Accordingly, the previous conclusion of no impact to noise reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 with no expected changes in manufacturing, distribution, application, and noise profile characteristics. Because PAR 1168 would not require physical modifications or construction activities, implementation of PAR 1168 is not expected to result in additional temporary or periodic ambient noise increases near affected facilities or expose persons to excessive

ground-borne vibration or ground-borne noise levels. Thus, the same reasoning for why the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 concluded no noise impacts would occur, such as those described above, also applies to PAR 1168. Therefore, the previous conclusion of no impact to noise reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Population and Housing

The October 2017 Final EA previously analyzed population and housing impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA concluded that no population and housing impacts would occur because:

1) No additional work was required since adhesive and sealant products would be reformulated using the same equipment that was previously used to manufacture those products.
2) No additional workers were expected to be needed to apply the reformulated products since the usage amount of the reformulated products would not be expected to substantially change.
3) The October 2017 version of Rule 1168 would not create any industry that would affect population growth, directly or indirectly induce the construction of housing units, or require the displacement of persons or housing elsewhere in the South Coast AQMD.

The November 2022 Final SEA for Rule 1168 evaluated population and housing impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168, with no expected changes in manufacturing, distribution, and application. Since the 2022 amendments to Rule 1168 would not require physical modifications involving construction or new housing, the same reasoning for why no population and housing impacts would occur as identified in items 1) through 3) also applied to the 2022 amendments to Rule 1168. Accordingly, the previous conclusion of no impact to population and housing reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesive and sealant products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule

1168, with no expected changes in manufacturing, distribution, and application. Because PAR 1168 would not require physical modifications involving construction or new housing, the reasoning supporting the previous conclusions that no population and housing impacts would occur, as identified in items 1) through 3), remains applicable to PAR 1168. Therefore, the previous conclusion of no impact to population and housing reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Recreation

The October 2017 Final EA for Rule 1168 previously analyzed recreation impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA concluded that no recreation impacts would occur because the reformulation of adhesive and sealant products would not:

1) directly or indirectly increase or redistribute population;
2) affect or increase the demand for or use of existing neighborhood and regional parks or other recreational facilities; and
3) require the construction of new or the expansion of existing recreational facilities that might have an adverse physical effect on the environment.

The November 2022 Final SEA for Rule 1168 evaluated recreation impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, used, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168, with no expected changes in manufacturing, distribution, and application. The November 2022 Final SEA for Rule 1168 also determined that the 2022 amendments to Rule 1168 would not result in population growth requiring additional recreation resources or otherwise affect existing recreational facilities. Therefore, the same reasoning for why no recreation impacts would occur as identified in items 1) through 3) also applied to the 2022 amendments to Rule 1168. Accordingly, the previous conclusion of no impact to recreation reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168 with no expected changes in manufacturing, distribution, and application. Since PAR 1168 would not require physical modifications involving construction or new housing associated with population growth,

additional recreation resources would also not be needed. Consistent with the previous conclusion in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, PAR 1168 would not result in any recreation impacts as summarized in items 1) through 3). Therefore, the previous conclusion of no impact to recreation reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Solid and Hazardous Waste

The October 2017 Final EA for Rule 1168 previously analyzed solid and hazardous waste impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA concluded that no solid and hazardous waste impacts would occur because:

1) Compliance with the October 2017 version of Rule 1168 would not change the disposal practices and would not increase the volume of solid or hazardous wastes that cannot be handled by existing municipal or hazardous waste disposal facilities or require additional waste disposal capacity.
2) Implementation of the October 2017 version of Rule 1168 was not expected to interfere with any affected distributors' or retailers' ability to comply with applicable local, state, or federal waste disposal regulations.

The November 2022 Final SEA for Rule 1168 evaluated energy impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that, under the 2022 version of Rule 1168, adhesive and sealant products would continue to be manufactured, formulated, distributed, used, and applied in a manner similar to the October 2017 version of Rule 1168, with no expected changes in existing manufacturing, distribution, or application practices. Further, the sell-through and use-through provisions included in the 2022 version of Rule 1168 would allow manufacturers, and suppliers to deplete Regulated Products in the warehouse or on the shelf and allow users to utilize existing regulated products rather than dispose of unused materials. Under the 2022 version of Rule 1168, because unused products would continue to be managed through existing disposal practices in accordance with the specifications in the manufacturer's product data sheets or recycling, the 2022 amendments to Rule 1168 were not expected to increase the amount of solid or hazardous waste generated, require additional waste disposal capacity, or interfere with distributors' and retailers' ability to comply with applicable local, state, or federal waste disposal requirements. Therefore, the previous conclusion of no impact to solid and hazardous waste reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay

the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants products are expected to be manufactured, formulated, used, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168 with no expected changes in manufacturing, distribution, and application. The sell-through and use-through provisions in PAR 1168 will allow manufacturers and suppliers to deplete Regulated Products in the warehouse or on the shelf and allows users to use up any remaining product rather than disposing of them. The sell-through and use-through effective dates also accommodate the typical three-year shelf life of these Regulated Products. Of course, when there is unused material under the current version of Rule 1168, contractors and businesses using Regulated Products either dispose of waste material according to the specifications in the manufacturer's product data sheets or recycle the waste material. Under PAR 1168, the disposal practices and the total amount of materials (hazardous and non-hazardous) disposed of would not be expected to change. Therefore, implementation of PAR 1168 would not be expected to create a new need to dispose of unused materials that do not comply with PAR 1168 upon adoption. Thus, consistent with the previous conclusion in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, the proposed project would not increase the amount of solid or hazardous waste generated, require additional waste disposal capacity, or interfere with distributors' and retailers' ability to comply with applicable local, state, or federal waste disposal requirements. Therefore, the previous conclusion of no impact to solid and hazardous waste reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to the proposed project.

Transportation and Traffic

The October 2017 Final EA for Rule 1168 previously analyzed transportation and traffic impacts associated with reformulating adhesive and sealant products by substituting certain chemicals with other chemicals that contain fewer VOCs, fewer or no toxics, and no stratospheric ozone-depleting compounds. The October 2017 Final EA for Rule 1168 concluded that no transportation and traffic impacts would occur because:

1) Reformulation of adhesive and sealant products would not change the delivery and circulation pattern of Regulated Products. Thus, transportation demands related to transporting substitute chemicals or new formulations of materials was not expected to increase.
2) No additional worker trips to distribution or retail facilities were expected.
3) No changes in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks, would be expected since product reformulation would occur within the existing manufacturing facilities and regulated/reformulated products were typically shipped via ground transportation.
4) No new roadway hazards or incompatible roadway uses or alteration of the existing long-term circulation patterns due to no expected increases in transportation-related demands would be expected.
5) No requirements specific to emergency access points to adversely affect existing emergency access plans were imposed.

The November 2022 Final SEA for Rule 1168 evaluated transportation and traffic impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission

limits for certain categories of adhesives and sealants; 3) creating additional subcategories of regulated products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC-exempt compound for two-component foam sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured, formulated, and applied in a similar manner as previously analyzed in the October 2017 Final EA for Rule 1168, with no expected changes in transportation-related activities, including modes of transportation, delivery, circulation, and distribution of adhesive and sealant products. Therefore, the same reasoning for why no transportation and traffic impacts would occur as identified in items 1) through 5) also applied to the 2022 amendments to Rule 1168. Accordingly, the previous conclusion of no impact to transportation and traffic reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesives and sealants are expected to be manufactured, formulated, and applied in a similar fashion as occurred with the October 2017 and November 2022 versions of Rule 1168 with no expected changes in modes of transportation, delivery, recirculation, and distribution of adhesive and sealants. Consistent with the previous conclusion in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168, PAR 1168 would not be expected to result in the impacts summarized in items 1) through 5). Therefore, the previous conclusion of no impact to transportation and traffic reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Tribal Cultural Resources

At the time the October 2017 Final EA for Rule 1168 was certified, the environmental checklist did not include tribal cultural resources as an environmental topic area to be evaluated. However, in 2019, tribal cultural resources were added to the environmental checklist in the CEQA Guidelines. Thus, the November 2022 Final SEA for Rule 1168 evaluated tribal cultural resources impacts associated with the 2022 amendments to Rule 1168. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be formulated at existing manufacturing facilities located in industrial-zoned areas within and outside of South Coast AQMD's jurisdiction and California. As such, the 2022 amendments to Rule 1168 would not require any physical changes to a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. Nonetheless, as part of releasing the October 2017 Final EA for Rule 1168 for public review and comment, South Coast AQMD provided a formal notice to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's notification list per Public Resources Code Section 21080.3.1(b)(1). Furthermore, the 2022 amendments to Rule 1168 were not expected to result in a physical change to a resource listed or eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined by South Coast AQMD to be significant to any tribe. Therefore, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would not cause a substantial adverse

change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. Accordingly, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would have no tribal cultural resources impacts.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesive and sealant products are expected to continue to be formulated at existing manufacturing facilities and used and applied in a similar manner as occurred with the October 2017 and November 2022 versions of Rule 1168. Similar to the 2022 amendments to Rule 1168, PAR 1168 would not require any physical changes to a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. Furthermore, PAR 1168 would not be expected to result in a physical change to a resource listed or eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined by South Coast AQMD to be significant to any tribe. Therefore, the same reasoning supporting the November 2022 Final SEA for Rule 1168 conclusion that no tribal cultural resources impacts would occur, such as those outlined above, also applies to PAR 1168. Accordingly, the previous conclusion of no impact to tribal cultural resources reached in the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Wildfire

At the time the October 2017 Final EA for Rule 1168 was certified, the environmental checklist did not include wildfire as an environmental topic area to be evaluated. However, in 2019, wildfire was added to the environmental checklist in the CEQA Guidelines. As such, the November 2022 Final SEA for Rule 1168 evaluated wildfire impacts associated with the 2022 amendments to Rule 1168. The November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured and formulated at existing manufacturing facilities located in industrial-zoned areas within and outside of South Coast AQMD's jurisdiction and California, which are typically not located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones. Because the 2022 amendments to Rule 1168 would not require physical modifications involving construction or changes to existing manufacturing activities, they would not substantially impair an adopted emergency response plan or emergency evacuation plan; exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors; require the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities, that may exacerbate fire risk or result in temporary or ongoing environmental impacts; expose people or structures to significant risks, including downslope or downstream flooding or landslides resulting from runoff, post-fire slope instability, or drainage changes; or expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildfires. Therefore, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would have no wildfire impacts.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new

category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesive and sealant products are expected to continue to be manufactured and formulated at existing manufacturing facilities and used and applied in a similar manner as occurred with the October 2017 and November 2022 versions of Rule 1168. Similar to the 2022 amendments to Rule 1168, PAR 1168 would not require physical modifications involving construction or changes to existing manufacturing activities, and the affected manufacturing facilities would continue to be located in industrial-zoned areas that are typically not located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones. Therefore, the same reasoning supporting the November 2022 Final SEA for Rule 1168 conclusion that no wildfire impacts would occur, such as those outlined above, also applies to PAR 1168. Accordingly, the previous conclusion of no impact to wildfire reached in the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Environmental Topic Areas Previously Concluded In the October 2017 Final EA and November 2022 Final SEA To Have Less Than Significant Impacts

The following environmental topic areas were previously analyzed in the October 2017 Final EA for Rule 1168 to have less than significant impacts: air quality and greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; and public services.

The November 2022 Final SEA for Rule 1168 independently considered the 2022 amendments to Rule 1168 and analyzed the incremental changes, if any, relative to the baseline, which was the project analyzed in the October 2017 Final EA for Rule 1168, to determine whether the previous conclusions of less than significant impacts for the environmental topic areas of air quality and greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; and public services would change. The analysis in the November 2022 Final SEA for Rule 1168 concluded that the incremental changes associated with implementing the 2022 amendments to Rule 1168 were not expected to alter the previous less than significant impact conclusions reached in the October 2017 Final EA for hazards and hazardous materials, hydrology and water quality, and public services. However, unlike the October 2017 Final EA for Rule 1168, the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts since the delayed and permanent VOC emission reductions foregone would exceed the South Coast AQMD's daily VOC operational significance threshold with no feasible mitigation measures

The following discussion independently considers the currently proposed project and analyzes the incremental changes, if any, relative to the baseline, which is the project analyzed in the October 2017 Final EA for Rule 1168. A brief summary of the previous conclusions reached in the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168, as well as the reasoning why the conclusions reached in the November 2022 Final SEA for Rule 1168 remain applicable to PAR 1168, is provided for each of the aforementioned environmental topic areas.

Air Quality and Greenhouse Gas Emissions

The October 2017 Final EA for Rule 1168 previously concluded that air quality and greenhouse gas emissions impacts would be less than significant due to operational VOC

emission reductions associated with reformulating adhesives and sealants with fewer VOC containing chemicals, fewer or no toxics, and no stratospheric ozone-depleting compounds.

The November 2022 Final SEA for Rule 1168 evaluated air quality and greenhouse gas emissions impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of Regulated Products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would result in significant and unavoidable operational air quality impacts because the delayed VOC emission reductions of 0.42 tpd over the short-term and permanent VOC emission reductions foregone of 0.28 tpd over the long-term would exceed South Coast AQMD's daily VOC operational significance threshold, with no feasible mitigation measures available.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations.

Sections 4.1 and 4.2 of this SEA analyzes the proposed project's air quality and GHG impacts and concludes significant operational air quality impacts since the delayed VOC emission reductions would exceed the South Coast AQMD's daily VOC operational significance threshold with no feasible mitigation measures.

Hazards and Hazardous Materials

The October 2017 Final EA for Rule 1168 previously concluded less than significant hazards and hazardous materials impacts associated with reformulating adhesives and sealants with fewer VOC containing chemicals, fewer or no toxics, and no stratospheric ozone-depleting compounds. The analysis in the October 2017 Final EA for Rule 1168 concluded that there would be:

1) No significant hazard to the public or environment through the routine transport, use, and disposal of hazardous materials; no new significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment; no new hazardous emissions, or new or increased handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; or no significant increase in fire hazard in areas with flammable materials.
2) No change in how these facilities comply with their current hazardous waste handling practices for any adhesive and sealant manufacturing facilities are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code Section 65962.5. In fact, any facility that is subject to the requirements in Government Code Section 65962.5 would still be required need to comply with any regulations relating to that code section.

3) No new safety hazards would be expected to people working or residing in the vicinity of public/private airports.
4) No impairment of the implementation of or physically interference with an adopted emergency response plan or emergency evacuation plan.
5) No significant exposure to people or structures to risk of loss, injury or death involving wildland fires.

The November 2022 Final SEA for Rule 1168 evaluated hazards and hazardous materials impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of Regulated Products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The November 2022 Final SEA for Rule 1168 concluded that the 2022 version of Rule 1168 would not require widespread reformulation of adhesive and sealant products because commercially available alternatives that do not contain pCBtF or t-BAc were already available. The November 2022 Final SEA for Rule 1168 also concluded that the extensive regulatory requirements governing flammable and other hazardous materials, including the existing requirements and permit conditions for the proper handling of flammable materials, would not be affected by the 2022 amendments to Rule 1168 because manufacturers would mostly continue to handle substantially the same solvents, including some hazardous or toxic materials, that were already subject to those existing regulatory requirements. The analysis in the November 2022 Final SEA for Rule 1168 also determined that the 2022 version of Rule 1168 would not increase or create new hazardous emissions that could adversely affect existing or proposed schools, prompt facility owners or operators to begin using new flammable materials, alter the regulatory requirements applicable to manufacturing facilities identified on the California Department of Toxic Substances Control hazardous waste facilities lists pursuant to Government Code Section 65962.5, interfere with adopted emergency response or emergency evacuation plans, or expose people or structures to increased risks associated with wildland fires because adhesive and sealant products would continue to be manufactured at existing facilities located in existing industrial, commercial or mixed land use areas within and outside of South Coast AQMD's jurisdiction and California. Accordingly, the previous conclusion of less than significant hazards and hazardous materials reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. PAR 1168 will not change the extensive and comprehensive regulatory requirements regarding flammable and otherwise hazardous materials. Also, as with the October 2017 version and November 2022 versions of Rule 1168, PAR 1168 is not expected to increase or create any new hazardous emissions which would adversely affect existing or proposed schools. In addition, PAR 1168 would not change the regulatory requirements for manufacturing facilities that are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code

Section 65962.5. PAR 1168 also contains no requirements that would pertain to or alter any adopted emergency response plans or emergency evacuation plans that may be in place at facilities that manufacture or use the Regulated Products. Under PAR 1168, adhesives and sealants will continue to be formulated at the existing manufacturing facilities located in existing industrial, commercial or mixed land use areas within and outside of South Coast AQMD's jurisdiction and California. These manufacturing facilities are not typically located in or near wildlands to expose people or structures to risk of loss, injury or death involving wildland fires. Finally, PAR 1168 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PAR 1168 does not contain any requirements that would prompt facility owners/operators to begin using new flammable materials. Therefore, the previous conclusion of less than significant hazards and hazardous materials impacts reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

Hydrology and Water Quality

The October 2017 Final EA for Rule 1168 previously analyzed the hydrology and water quality impacts associated with reformulating adhesives and sealants with fewer VOC containing chemicals, fewer or no toxics, and no stratospheric ozone-depleting compounds. The analysis in the October 2017 Final EA for Rule 1168 concluded that the October 2017 version of Rule 1168 would not violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality. Further, implementation of the October 2017 version of Rule 1168 would also not be expected to result in a determination by the wastewater treatment provider which serves or may serve the manufacturers and users of the reformulated Regulated Products that there is not adequate existing capacity to serve any additional wastewater that may be generated from using water for cleaning up.

The November 2022 Final SEA for Rule 1168 evaluated hydrology and water quality impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of Regulated Products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The analysis in the November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would not alter existing product practices or result in changes to adhesive and sealant formulations that would adversely affect water quality. In addition, the sell-through and use-through provisions in the November 2022 version of Rule 1168 were not expected to result in improper disposal of unused Regulated Products because such materials would continue to be managed through recycling or disposal methods consistent with manufacturer recommendations. Although wastewater generated from cleaning water-borne formulations could be discharged to public sewer systems, the November 2022 Final SEA for Rule 1168 concluded that significant adverse effects to water quality, wastewater treatment, or wastewater treatment capacity would not occur based on previous CEQA evaluations for other VOC rules, including Rule 1113 – Architectural Coatings, Rule 1107 – Coating of Metal Parts and Products, and Rule 1151– Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations, which found no significant water quality impacts associated with

similar waterborne reformulation efforts. Therefore, the previous conclusion of less than significant impact related to water quality standards, waste discharge requirements, wastewater treatment, and wastewater treatment capacity reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. PAR 1168 would not change the current product practices or alter the product formulations to be more detrimental to water quality. Further, the sell-through and use-through provision in the proposed project would not create a new need to dispose of unused materials. If not being used, contractors and businesses using products would either dispose of waste material according to the specifications in the manufacturer's product data sheets or recycle the waste material, such that unused materials are not disposed of via wastewater. While PAR 1168 would not specify or dictate the type of solvent for formulation, wastewater from cleaning up water-borne formulations could be disposed of into the public sewer system, in lieu of disposal as hazardous waste. PAR 1168 is not expected to cause significant adverse effects to water quality, wastewater treatment, or wastewater treatment capacity since such effects were not previously observed as a result of reformulating coatings with water-borne technology in response to other rules targeting reductions in VOC emissions from area sources such as Rules 1113, 1107 and 1151. Therefore, the previous conclusion of less than significant impacts relating to water quality standards, waste discharge requirements, wastewater treatment, and wastewater treatment capacity reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

The analysis in the October 2017 Final EA also concluded less than significant impacts to ground water and water supplies because:

1) Unless being treated properly, the quality of groundwater is not suitable for usage in the manufacturing of Regulated Products and manufacturers typically use potable water for water-borne formulations of Regulated Products.
2) The CEQA evaluations for previous amendments to other VOC-based rules (e.g., Rules 1107, 1113, and 1151) concluded no significant impacts to water and groundwater supplies as a result of reformulation with waterborne technologies.

Similar to the October 2017 version of Rule 1168, the 2022 amendments to Rule 1168 were not expected to substantially deplete groundwater or water supplies or substantially interfere with groundwater recharge because manufacturers of adhesive and sealant products would continue to use potable water for waterborne formulations, as untreated groundwater would generally not be suitable for manufacturing regulated products unless properly treated, and previous CEQA evaluations for previous amendments to other VOC-based rules determined that waterborne reformulation approaches would not result in significant impacts to water or groundwater supplies. Accordingly, the previous conclusion of less than significant impact related to water and groundwater supplies to transportation and traffic reached in the October 2017 Final EA for Rule 1168 remained unchanged for the 2022 amendments to Rule 1168.

The same reasoning for why no significant impacts relating to water and groundwater supplies would occur, as outlined above, also apply to PAR 1168. Therefore, similar to the October 2017 and November 2022 versions of Rule 1168, PAR 1168 is not expected to substantially deplete groundwater or water supplies and substantially interfere with groundwater recharge.

Lastly, the October 2017 Final EA for Rule 1168 concluded that the October 2017 version of Rule 1168 would not:

1) Substantially alter the existing drainage pattern of the site or area where reformulated Regulated Products manufactured or used, including through alteration of the course of a stream or river;
2) Substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site;
3) Create new or contribute to existing runoff water which would exceed the capacity of existing or planned storm water drainage systems;
4) Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
5) Expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow; and
6) Result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or the expansion of existing facilities.

The November 2022 Final SEA for Rule 1168 concluded that the 2022 amendments to Rule 1168 would not alter the existing manufacturing locations or facility operations because adhesive and sealant products would continue to be manufactured at existing facilities with process lines located within enclosed buildings. In addition, reformulated adhesive and sealant products would continue to be applied and used in the same manner as products regulated under the October 2017 version of Rule 1168, and unused Regulated Products would continue to be recycled or properly disposed of in accordance with manufacturer recommendations and applicable local and state requirements. Therefore, the reasoning supporting the conclusions reached in the October 2017 Final EA for Rule 1168 related to drainage patterns, runoff, flooding hazards, and the need for new or expanded water, wastewater, or stormwater facilities would continue to apply to the 2022 amendments to Rule 1168.

Under PAR 1168, adhesives and sealants will continue to be manufactured at existing facilities whose process lines operate within enclosed buildings. Similarly, new or revised formulations of adhesives and sealants are expected to be applied and used in the same manner as the adhesives and sealants currently subject to the requirements in the October 2017 and November 2022 versions of Rule 1168. Further, unused Regulated Products will be recycled or properly disposed according to the specifications in the manufacturer's product safety data sheets and according to local and state requirements for proper handling and disposal. Therefore, the same reasoning for why no impacts relating to drainage patterns of the area, run off water, exposing people and structures to flooding hazards, and constructing new water or wastewater treatments would occur, as outlined above, also apply to PAR 1168.

Public Services

The October 2017 Final EA for Rule 1168 previously analyzed public services impacts associated with reformulating adhesives and sealants with fewer VOC containing chemicals, fewer or no toxics, and no stratospheric ozone-depleting compounds and concluded that less than significant impacts would occur because:

1) Implementation of the October 2017 version of Rule 1168 might result in an accidental or emergency release of hazardous or flammable materials that are being used during the reformulation process. While unpredictable and with a low probability of occurring, it would require the assistance of public services personnel.
2) Police and fire department personnel may be needed since they are typically first responders to emergency situations and may assist local hazmat teams with containing hazardous materials, putting out fires, and controlling crowds to reduce public exposure to releases of hazardous materials in the event of a spill. However, no substantial increases in police attendance are anticipated due to the low probability of such incidences.

The November 2022 Final SEA for Rule 1168 evaluated public services impacts associated with: 1) prohibiting the use of pCBtF and t-BAc due to toxicity concerns; 2) delaying the effective dates of VOC emission limits or maintaining the existing VOC emission limits for certain categories of adhesives and sealants; 3) creating additional subcategories of Regulated Products to better characterize and refine VOC emission limits; and 4) allowing Opteon 1100 as a VOC exempt compound for Two-Component Foam Sealants used in an industrial or professional setting contingent upon OEHHA's assessment for toxicity concerns. The analysis in the November 2022 Final SEA for Rule 1168 concluded that adhesive and sealant products would continue to be manufactured within the boundaries of existing manufacturing facilities using the same equipment; therefore, the same reasoning supporting the less than significant public services impact conclusion related to fire and police protection services in the October 2017 Final EA for Rule 1168 would continue to apply to the 2022 amendments to Rule 1168. The November 2022 Final SEA for Rule 1168 also concluded that the potential need for fire and police protection services associated with accidental or emergency releases of hazardous or flammable materials during the reformulation process would remain limited because such incidents would be unpredictable and have a low probability of occurring. Although emergency responders may be needed to assist local hazmat teams with containing hazardous materials, extinguishing fires, and controlling crowds to reduce public exposure to hazardous material releases, the 2022 version of Rule 1168 was not expected to result in a substantial increase in demand for fire and police protection services.

The analysis in this SEA focuses on the following key components of PAR 1168 which proposes to: 1) extend the pCBtF prohibition date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) to allow more time for reformulations; and 2) delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations. Under PAR 1168, adhesive and sealant products are expected to be manufactured within the boundary of existing manufacturing facilities with the same equipment. Therefore, the same reasoning for why less than significant public service impacts relating to fire and police protection services would occur, as outlined above, also apply to the proposed project.

The analysis in the October 2017 Final EA for Rule 1168 also concluded no impacts to public services from schools and other facilities because reformulation of adhesive and sealant products would not cause an increase in the local population such that:

1) additional personnel at local schools would not be needed; and
2) no new or physically altered government facilities would be needed in order to maintain acceptable service ratios, response times, or other performance objectives.

The analysis in the November 2022 Final SEA for Rule 1168 concluded that, because implementation of the 2022 amendments to Rule 1168 was not expected to increase the local population, no additional personnel at local schools or new or physically altered government facilities would be needed to maintain acceptable service ratios, response times, or other performance objectives. Therefore, the November 2022 Final SEA for Rule 1168 concluded that the reasoning supporting the no public services impact conclusion related to schools and other facilities in the October 2017 Final EA for Rule 1168 would continue to apply to the 2022 amendments to Rule 1168.

Since no increase in local population would be anticipated as a result of implementing PAR 1168, the same reasoning for why no public service impacts relating to schools and other facilities would occur, as outlined above, also apply to the proposed project. Therefore, the previous conclusion of no impacts to public services from schools and other facilities less reached in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 will continue to apply to PAR 1168.

4.4 POTENTIAL GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126(d) requires an environmental analysis to consider the "growth-inducing impact of the proposed action." CEQA defines growth-inducing impacts as those impacts of a proposed project that “could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth.” [CEQA Guidelines Section 15126.2(d)].

To address this issue, potential growth-inducing effects are examined through the following considerations:

- Facilitation of economic effects that could result in other activities that could significantly affect the environment;
- Expansion requirements for one or more public services to maintain desired levels of service as a result of the proposed project;
- Removal of obstacles to growth through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development;
- Adding development or encroachment into open space; and/or
- Setting a precedent that could encourage and facilitate other activities that could significantly affect the environment.

4.4.1 Economic and Population Growth, and Related Public Services

A project would be considered to directly induce growth if it would directly foster economic or population growth or the construction of new housing in the surrounding environment (e.g., if it would remove an obstacle to growth by expanding existing infrastructure such as new roads or wastewater treatment plants).

The projects evaluated in the October 2017 Final EA for Rule 1168 and the November 2022 Final SEA for Rule 1168 were concluded to not remove barriers to population growth, since implementation of the October 2017 and November 2022 versions of Rule 1168 involved no changes to a General Plan, zoning ordinance, or a related land use policy.

The proposed project evaluated in this SEA contains incremental changes to the project previously evaluated in the November 2022 Final SEA for Rule 1168. The proposed project would also not be expected to remove barriers to population growth, since implementation of the proposed project does not involve any changes to a General Plan, zoning ordinance, or a related land use policy.

Further, the proposed project, as with the projects evaluated in the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168, does not include policies that would encourage the development of new housing or population-generating uses or infrastructure that would directly encourage such uses. The proposed project, as with the projects evaluated in the October 2017 Final EA for Rule 1168 and November 2022 Final SEA for Rule 1168, does not change jurisdictional authority or responsibility concerning land use or property issues. Land use authority falls solely under the purview of the local governments. The South Coast AQMD is specifically excluded from infringing on existing city or county land use authority (Health and Safety Code Section 40414). Therefore, PAR 1168 would not directly trigger new residential development in the area.

PAR 1168 would not directly or indirectly stimulate substantial population growth, remove obstacles to population growth, or necessitate the construction of new community facilities that would lead to additional growth within South Coast AQMD's jurisdiction. Due to no expected construction activities, PAR 1168 would not require relocation of any workers. Further, PAR 1168 would not be expected to result in an increase in local population, housing, or associated public services (e.g., fire, police, schools, recreation, and library facilities) since no increase in population or the number of workers is expected. Likewise, PAR 1168 would not create new demand for secondary services, including regional or specialty retail, restaurant or food delivery, recreation, or entertainment uses. As such, the proposed project would not foster economic or population growth in the surrounding area in a manner that would be growth-inducing.

Thus, implementing PAR 1168 will not, by itself, have any direct or indirect growth-inducing impacts on businesses in the South Coast AQMD's jurisdiction because it is not expected to foster economic or population growth or the construction of additional housing and primarily affects existing facilities.

4.4.2 Removal of Obstacles to Growth

The facilities which manufacture adhesives and sealants that will be regulated by PAR 1168 are already established entities located within and outside of South Coast AQMD's jurisdiction and

outside of California. Under PAR 1168, adhesives and sealants are expected to be manufactured, reformulated (as applicable), used, and applied in a similar fashion as adhesives and sealants subject to the October 2017 and November 2022 versions of Rule 1168. Further, PAR 1168 will not cause any substantial changes in transportation type, delivery, recirculation, and distribution of adhesive and sealants. Therefore, PAR 1168 would not employ activities or uses that would result in growth inducement, such as the development of new infrastructure (e.g., new roadway access or utilities) that would directly or indirectly cause the growth of new populations, communities, or currently undeveloped areas. Likewise, PAR 1168 would not require or result in an expansion of existing public service facilities (e.g., police, fire, libraries, and schools) or the development of public service facilities that do not already exist.

4.4.3 Development or Encroachments into Open Space

Development can be considered growth-inducing when it is not contiguous to existing urban development and introduces development into open space areas. PAR 1168 applies to all adhesive and sealants manufactured, supplied, distributed, sold and used within South Coast AQMD's jurisdiction but does not contain any requirements that would trigger new land use developments. Moreover, as discussed in Section 4.1.1, PAR 1168 is not expected to require physical changes or modifications that would involve construction activities. Therefore, PAR 1168 would not require or result in development within or encroachment into an open space area.

4.4.4 Precedent Setting Action

Rule 1168 was adopted in April 1989 to reduce VOC emissions from adhesive applications. The rule has been amended 15 times with the last two amendments in October 2017 and November 2022. The purpose of the October 2017 amendments to Rule 1168 was to reduce emissions of VOCs by 1.38 tpd, as well as reduce toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The October 2017 amendments to Rule 1168 also included a commitment to conduct a technology assessment for top and trim adhesives, roofing products, plastic welding cements, and foam sealants to determine if products for nine adhesive and sealant categories were available that could achieve the VOC limits by January 1, 2023. The technology assessment concluded that some of these product categories either needed more time beyond January 1, 2023 to meet the VOC limits or that achieving the lower VOC limits would not be technically feasible. Based on the results of the technology assessment, the November 2022 version of Rule 1168 adjusted certain VOC limits and provided additional time for certain products to be reformulated. In addition, the November 2022 version of Rule 1168 prohibited the use of t-BAc and pCBtF, which are strong carcinogens, to promote public health and reduce exposure to these toxic compounds. By prohibiting t-BAc and pCBtF, the November 2022 version of Rule 1168 established a precedent for future rulemaking activities aimed at reducing VOCs and toxic compounds. However, the precedent established by prohibiting these carcinogenic compounds was not expected to result in other significant environmental effects because the prohibition of t-BAc and pCBtF was intended to promote public health and would provide an air quality benefit without causing significant adverse environmental effects.

PAR 1168 proposes to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other

Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. Under PAR 1168, the same VOC limits and pCBtF phaseout requirements established by the November 2022 version of Rule 1168 would continue to apply, but the dates by which certain categories would be required to comply with those requirements would be extended. Because PAR 1168 would delay, rather than establish, requirements previously adopted under the November 2022 version of Rule 1168, and would not introduce a new type of regulatory action beyond the requirements established by the November 2022 version of Rule 1168, PAR 1168 is not expected to establish a new precedent that would result in other significant environmental effects.

4.4.5 Conclusion

PAR 1168 is not expected to foster economic or population growth or result in the need to construct additional housing or other infrastructure, either directly or indirectly, that would further encourage growth. PAR 1168 would also not result in an increase in production of resources or cause a progression of growth that could significantly affect the environment either individually or cumulatively.

4.5 RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM ENVIRONMENTAL GOALS

CEQA documents are required to explain and make findings about the relationship between short-term uses and long-term productivity. [CEQA Guidelines Section 15065(a)(2)]. An important consideration when analyzing the effects of a proposed project is whether it will result in short-term environmental benefits to the detriment of achieving long-term goals or maximizing productivity of these resources. Implementing the proposed project is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement. The purpose and long-term environmental goals of Rule 1168 is to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from the application of adhesives, adhesive primers, sealants, and sealant primers because formulations of these products contain compounds that are primarily comprised of VOCs but can also contain toxics and stratospheric ozone-depleting compounds.

As discussed earlier, the November 2022 version of Rule 1168 prohibited the use of t-BAc and pCBtF due to toxicity concerns, which would directly support the long-term goal of reducing toxic air contaminants and would result in a long-term environmental benefit. However, due to technological issues with the inability to achieve the VOC limits and effective dates in the October 2017 version of Rule 1168 for certain adhesives and sealants, the short-term goal of the November 2022 version of Rule 1168 was to revert to the higher VOC limits that were in place prior to the October 2017 amendments to Rule 1168 and to extend the effective dates for certain categories of adhesives and sealants to allow manufacturers additional time to develop products with fewer VOCs, which would eventually lead to achieving VOC emission reductions for these categories of adhesives and sealants over the long-term. The November 2022 Final SEA concluded that the November 2022 version of Rule 1168 would result in delayed VOC emission reductions of 0.42 tpd over the short term and permanent VOC emission reductions foregone of 0.28 tpd over the

long term, and that these delayed and permanent emission reductions foregone would result in significant and unavoidable operational air quality impacts. The analysis in the November 2022 Final SEA for Rule 1168 also noted that the majority of the VOC limits would remain unchanged, such that the long-term goal of reducing VOC emissions from adhesives and sealants would prevail.

PAR 1168 proposes to extend the pCBtF prohibition date for Roof Adhesive Primers to allow more time for reformulations; delay the effective dates of VOC emission limits for three categories of adhesives and sealants to allow more time for reformulations; include equivalent alternative reactivity-based limits for Top and Trim Adhesives, ~~and~~ Roof Adhesive Primers, and All Other Adhesive Primers; delete the exemption that allows facilities to use up to 55-gallons of non-compliant products per year; require manufacturers to provide a list of their distributors annually; transition reporting to a recordkeeping requirement for distributors; include a new category for battery adhesives with an extended pCBtF prohibition date; and provide clarifications, updates to definitions, and cross references to maintain consistency with other South Coast AQMD rules. Under PAR 1168, the same VOC limits and pCBtF phaseout requirements established by the November 2022 version of Rule 1168 would continue to apply, but the dates by which certain categories would be required to comply with those requirements would be extended. Therefore, implementation of PAR 1168 would delay certain VOC emission reductions and the air quality benefit associated with the pCBtF phaseout over the short-term. However, because PAR 1168 would not change the established VOC limits or eliminate the pCBtF phaseout requirements in the November 2022 version of Rule 1168, the delayed VOC emission reductions would eventually be achieved and the pCBtF phaseout would still occur for the applicable categories of Regulated Products. As such, the short-term delays under PAR 1168 would not prevent achievement of the long-term environmental goals of Rule 1168, and the conclusion in the November 2022 Final SEA that the long-term goal of reducing VOC emissions from adhesives and sealants would prevail remains applicable to PAR 1168.

CHAPTER 5

ALTERNATIVES

Introduction

Methodology for Developing Project Alternatives

Description of Alternatives to the Proposed Project

Alternatives Analysis

Comparison of Alternatives to the Proposed Project

Alternatives Rejected as Infeasible

Lowest Toxic and Environmentally Superior Alternative

Conclusion

5.0 INTRODUCTION

This SEA provides a discussion of alternatives to the proposed project as required by CEQA. The alternatives discussion includes measures for attaining the objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. A 'no project' alternative must also be evaluated. The range of alternatives must be sufficient to permit a reasoned choice but need not include every conceivable project alternative. CEQA Guidelines Section 15126.6(c) specifically notes that the range of alternatives required in a CEQA document is governed by a 'rule of reason' and only necessitates that the CEQA document set forth those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. In addition, South Coast AQMD's certified regulatory program pursuant to Public Resources Code Section 21080.5, CEQA Guidelines Section 15125(l), and South Coast AQMD Rule 110 does not impose any greater requirements for a discussion of project alternatives in a SEA than is required for an EIR under CEQA.

5.1 METHODOLOGY FOR DEVELOPING PROJECT ALTERNATIVES

The alternatives typically included in CEQA documents for proposed South Coast AQMD rules, regulations, or plans are developed by breaking down the project into distinct components (e.g., emission limits, compliance dates, applicability, exemptions, pollutant control strategies, etc.) and varying the specifics of one or more of the components. Different compliance approaches that generally achieve the objectives of the project may also be considered as project alternatives. CEQA Guidelines Section 15126.6(b) states that the purpose of alternatives is to identify ways to mitigate or avoid significant effects that a project may have on the environment.

The initial analysis of the proposed project determined that, of the amendments proposed, only the components in PAR 1168 that propose to delay the effective dates of VOC emission limits for certain categories of adhesives and sealants could have potentially significant adverse air quality impacts during operation. As discussed earlier, under PAR 1168, extending the pCBtF phaseout date for Roof Adhesive Primers and a new category of adhesives (Battery Adhesives) would also delay the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF. As such, alternatives to PAR 1168 were crafted by varying the proposed effective dates of VOC emission limits for certain categories of adhesives and sealants and/or the proposed pCBtF phaseout date for Roof Adhesive Primers and Battery Adhesives.

5.2 DESCRIPTION OF ALTERNATIVES TO THE PROPOSED PROJECT

Three alternatives to the proposed project are summarized in Table 5-1: Alternative A – No Project, Alternative B – More Stringent Proposed Project, and Alternative C – Less Stringent Proposed Project. The primary components of the proposed alternatives that have been modified are the effective dates for compliance with the VOC emission limits and the pCBtF phaseout date established in the November 2022 version of Rule 1168. Unless otherwise specifically noted, all

other components of the project alternatives are identical to the components of the proposed project.

The following subsections provide a brief description of the alternatives.

5.2.1 Alternative A – No Project

CEQA requires the specific alternative of "No Project" to be evaluated. A No Project Alternative consists of what would occur if the proposed project (PAR 1168) was not approved; in this case, not proposing amendments to Rule 1168. Alternative A, the no project alternative, means that the November 2022 version of Rule 1168 would remain in effect. Under Alternative A, adhesives, sealants, sealant primers and adhesive primers would have to comply with the VOC emission limits and their corresponding effective dates in the November 2022 version of Rule 1168. Moreover, under Alternative A, the t-BAc and pCBtF prohibition effective dates, sell-through end dates, and use-through end dates for all categories of adhesives, sealants, sealant primers, and adhesive primers would remain unchanged from the November 2022 version of Rule 1168.

5.2.2 Alternative B – More Stringent Proposed Project

There are some elements in PAR 1168 that could be adjusted to create a more stringent proposed project. To be more stringent would be to impose more requirements, reduce the emission standards to be achieved, or provide less flexibility or relief to those subject to PAR 1168. Under Alternative B, more stringent means the required effective date to meet the VOC limits would need to occur six months earlier than the proposed project for the categories of Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant while the effective date to meet the VOC limit for Top and Trim Adhesive would need to occur 12 months earlier than PAR 1168. In addition, under this alternative, the pCBtF effective date, sell-through end date, and use-through end date would be 12 months earlier than the proposed project for Roof Adhesive Primers and Battery Adhesives.

5.2.3 Alternative C – Less Stringent Proposed Project

By contrast to Alternative B, there are a number of elements in PAR 1168 that could be adjusted to create a less stringent proposed project. To be less stringent would be to impose fewer requirements, increase the VOC emission limits to be achieved, or provide more flexibility or relief to the adhesives and sealants subject to PAR 1168. Under Alternative C, the categories of Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant would have an additional six months to meet the meet the VOC limits whereas the required effective date to meet the VOC limits would need to occur 12 months later than the proposed project for the category of Top and Trim Adhesive. In addition, under this alternative, the pCBtF effective date, sell-through end date, and use-through end date would be 12 months later than the proposed project for Roof Adhesive Primers and Battery Adhesives.

5.3 ALTERNATIVES ANALYSIS

Each key component of PAR 1168 has been identified to only affect operational air quality. As such, for this alternatives analysis, the key components with the potential to create operational air quality impacts are evaluated for each alternative and compared to the effects of PAR 1168. Therefore, the following section describes the potential operational air quality impacts that may occur for each alternative and identifies which of the key components may have significant or less than significant impacts, as applicable. Potentially significant adverse operational air quality impacts are quantified where sufficient data are available. A comparison of the environmental impacts for each project alternative is provided in Table 5-2. The following subsections also re-summarize impacts and significance conclusions from the proposed project before discussing each alternative.

5.3.1 Air Quality and Greenhouse Gas Emissions

5.3.1.1 Proposed Project

Potential direct and indirect air quality and GHG emissions impacts from the proposed project are summarized in the following subsection. For the complete analysis, refer to Section 4.1 - Air Quality and Greenhouse Gas Emissions.

As explained previously, PAR 1168 is not expected to require physical changes or modifications that would involve construction activities. Furthermore, the types of chemicals that are used for manufacturing adhesives and sealants subject to Rule 1168 are not known to contain any GHG compounds, and any future reformulations with GHG compounds as a result of implementing PAR 1168 would not be expected. Therefore, PAR 1168 would neither generate significant adverse construction air quality impacts nor generate GHG impacts during construction or operation.

PAR 1168 proposes to delay the effective dates for certain categories of adhesives and sealants to comply with the applicable VOC limits established in the November 2022 version of Rule 1168, and these proposed changes are considered operational activities that are expected to generate significant air quality impacts. While the November 2022 Final SEA for Rule 1168 originally estimated that the November 2022 version of Rule 1168 would result in delayed VOC emission reductions ranging from 0.42 tpd to 0.39 tpd through January 1, 2028, PAR 1168 would extend the period of delayed VOC emission reductions beyond January 1, 2028. Implementation of PAR 1168 would delay VOC emission reductions for Clear, Paintable, Immediately Water-Resistant Sealant from January 1, 2026 to January 1, ~~2028~~2029, for Rubber Vulcanization Adhesive from January 1, 2028 to January 1, 2029, and for Top and Trim Adhesive from January 1, 2028 to January 1, 2030. As shown in Table 4-2, PAR 1168 is expected to result in 0.146 tpd of delayed VOC emission reductions through January 1, ~~2028~~2029, ~~followed by 0.135 tpd from January 1, 2028 through January 1, 2029~~ and 0.115 tpd from January 1, 2029 through January 1, 2030. Thus, PAR 1168 would extend the period during which VOC emission reductions are delayed by approximately two years compared to the November 2022 version of Rule 1168.

It is important to note that PAR 1168 does not change the VOC limits established in the November 2022 version of Rule 1168, except for the new category of Battery Adhesives, for which PAR 1168 would establish a lower VOC limit of 120 g/L for these coatings instead of the current VOC limit of 250 g/L under "All Other Adhesives." However, no change in VOC emissions are expected from requiring the lower VOC limit for Battery Adhesives; therefore, no permanent VOC emission reductions are expected from the proposed project.

Lastly, PAR 1168 proposes to extend the pCBtF prohibition effective date, sell-through end date, and use-through end date for Roof Adhesive Primers and Battery Adhesives. As a result, the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives would be delayed. However, the pCBtF phaseout requirement established in the November 2022 version of Rule 1168 would remain in place under PAR 1168, and the phaseout would still occur under the extended deadline. PAR 1168 would also 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 ~~0.1~~1.0 percent by weight, thereby providing an additional toxicity benefit.

5.3.1.2 Alternative A – No Project

Under Alternative A, manufacturers would be required to formulate adhesives and sealants for sale and use within South Coast AQMD's jurisdiction that meet the VOC limits and their corresponding effective dates established in the November 2022 version of Rule 1168. The November 2022 Final SEA for Rule 1168 concluded that compliance with these VOC limits and effective dates would result in delayed VOC emission reductions ranging from 0.42 tpd to 0.39 tpd[67] through January 1, 2028. Under Alternative A, the t-BAc and pCBtF prohibition effective dates, sell-through end dates, and use-through end dates for all categories of adhesives, sealants, sealant primers, and adhesive primers would remain the same as the November 2022 version of Rule 1168. Thus, this alternative will reduce the potential for toxic chemicals to be used in Rule 1168 Regulated Products.

However, manufacturers of certain adhesives and sealants have indicated that they need additional time to develop compliant products or cannot meet the applicable VOC limits or pCBtF phaseout effective dates established in the November 2022 version of Rule 1168 due to technological limitations, creating potential compliance issues.

5.3.1.3 Alternative B – More Stringent Proposed Project

PAR 1168 proposes revisions to the VOC limits and corresponding effective dates for certain categories of adhesives and sealants which are based on the recommendations from the

[67] Delayed emission reductions calculated for the November 2022 version of Rule 1168 relied on 2017 and 2018 QER data, while the delayed emission reductions calculated for PAR 1168 rely on 2021 and 2022 QER data. The delayed emission reductions calculated in the November 2022 Final SEA for Rule 1168 have not been recalculated using the 2021 and 2022 QER data because doing so would not change the magnitude or conclusion regarding the potentially significant impacts associated with PAR 1168, as the duration of the potentially significant impacts associated with PAR 1168 extends beyond the timeframe estimated in the November 2022 Final SEA for Rule 1168.

technology assessment that was conducted and Alternative B proposes the same VOC limits but with earlier effective dates for the following categories of adhesives and sealants: Top and Trim Adhesive (by January 1, 2029 instead of January 1, 2030), Rubber Vulcanization Adhesive (by July 1, 2028 instead of January 1, 2029), and Clear, Paintable, Immediately Water-Resistant Sealant (by July 1, ~~2027~~ 2028 instead of January 1, ~~2028~~2029). In addition, under Alternative B, the pCBtF prohibition effective date, sell-through end date, and use-through end date for Roof Adhesive Primers and Battery Adhesives would be 12 months earlier than PAR 1168. When compared to PAR 1168, Alternative B may be infeasible at worst, or difficult to achieve at best, due to technological limitations and time constraints associated with developing and testing new formulations prior to making them commercially available for use.

Alternative B would result in 0.146 tpd of delayed VOC emission reductions through July 1, ~~2027~~2028, ~~followed by 0.135 tpd from July 1, 2027 through July 1, 2028,~~ and 0.115 tpd from July 1, 2028 through January 1, 2029, but the delay would be for a shorter period of time (i.e., six to 12 months less) when compared to PAR 1168. Thus, Alternative B would result in significant operational air quality impacts. Lastly, under Alternative B, the delay in achieving the air quality benefits associated with the pCBtF phaseout for Roof Adhesive Primers and Battery Adhesives would be 12 months shorter compared to PAR 1168.

Since the analysis concluded that there would be no significant impacts on construction air quality and construction/operation GHG emissions for PAR 1168, and since Alternative B is only focused on imposing more stringent compliance dates than what would occur under PAR 1168, Alternative B would also be expected to have no significant impacts on construction air quality and construction/operation GHG emissions.

5.3.1.4 Alternative C – Less Stringent Proposed Project

Alternative C adjusts some elements in PAR 1168 to create a less stringent proposed project by further delaying the potential to achieve VOC emission reductions and the pCBtF phaseout to the fullest extent possible. Specifically, Alternative C proposes delayed effective dates by one year for the following categories of adhesives and sealants: Top and Trim Adhesive (by January 1, 2031 instead of January 1, 2030), Rubber Vulcanization Adhesive (by July 1, 2029 instead of January 1, 2029), and Clear, Paintable, Immediately Water-Resistant Sealant (by July 1, ~~2028~~ 2029 instead of January 1, ~~2028~~2029) to comply with the same proposed VOC limits as in PAR 1168.

Alternative C would result in 0.146 tpd of delayed VOC emission reductions through July 1, ~~2028~~2029, ~~followed by 0.135 tpd from July 1, 2028 through July 1, 2029~~ and 0.115 tpd from July 1, 2029 through January 1, 2031, but the delay would occur over a longer period of time (e.g., twelve months longer) when compared to the proposed project. Thus, Alternative C would result in significant operational air quality impacts. Lastly, under Alternative C, the delay in achieving the air quality benefits associated with the pCBtF phaseout for Roof Adhesive Primers and Battery Adhesives would be 12 months longer compared to PAR 1168.

Since the analysis concluded that there would be no significant impacts on construction air quality and construction/operation GHG emissions for PAR 1168, and since Alternative C is only focused on imposing less stringent compliance dates than what would occur under PAR 1168, Alternative C would also be expected to have no significant impacts on construction air quality and construction/operation GHG emissions.

5.4 COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Pursuant to CEQA Guidelines Section 15126.6(d), a CEQA document "shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed." Accordingly, Table 5-1 provides a matrix displaying the major differences in characteristics between the proposed project and each alternative, and Table 5-2 compares the environmental impacts between the proposed project and each alternative.

Table 5-1
Summary of the Proposed Project (PAR 1168) and Alternatives

Categories with Proposed Changes	Proposed Project (PAR 1168)	Alternative A: No Project*	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Top and Trim Adhesive	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2028 to 1/1/2030 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L	250 g/L VOC limit by 1/1/2028	250 g/L VOC limit by 1/1/2029 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L	250 g/L VOC limit by 1/1/2031 Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L
Rubber Vulcanization Adhesive	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2028 to 1/1/2029	250 g/L VOC limit by 1/1/2028	250 g/L VOC limit by 7/1/2028	250 g/L VOC limit by 7/1/2029
Clear, Paintable, Immediately Water-Resistant Sealant	No change to existing 250 g/L VOC limit but extend effective date from 1/1/2026 to 1/1/~~2028~~2029	250 g/L VOC limit by 1/1/2026	250 g/L VOC limit by 7/1/~~2027~~2028	250 g/L VOC limit by 7/1/~~2028~~2029
Roof Adhesive Primers	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L Extend pCBtF prohibition effective date from 1/1/2027 to 1/1/2030 Extend pCBtF sell-through end date from 1/1/2028 to 1/1/2031 Extend pCBtF use-through end date from 1/1/2028 to 1/1/~~2031~~2032	No change to existing 250 g/L VOC limit pCBtF prohibition effective date would be 1/1/2027 pCBtF sell-through end date would be 1/1/2028 pCBtF use-through end date would be 1/1/2028	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L pCBtF prohibition effective date would be 1/1/2029 pCBtF sell-through end date would be 1/1/2030 pCBtF use-through end date would be 1/1/~~2030~~2031	No change to existing 250 g/L VOC limit Include optional alternative reactivity-based limits equivalent to VOC limit of 250 g/L pCBtF prohibition effective date would be 1/1/2031 pCBtF sell-through end date would be 1/1/2032 pCBtF use-through end date would be 1/1/~~2032~~2033

*The No Project alternative means retaining the VOC limits and effective dates as established in the November 2022 version of Rule 1168.

Table 5-1 (concluded)
Summary of the Proposed Project (PAR 1168) and Alternatives

Categories with Proposed Changes	Proposed Project (PAR 1168)	Alternative A: No Project*	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Battery Adhesives (a new category, currently included under All Other Adhesives)	120 g/L VOC limit upon rule adoption Extend pCBtF prohibition effective date from 1/1/2024 to 1/1/2029 Extend pCBtF sell-through end date from 1/1/2027 to 1/1/2030 Extend pCBtF use-through end date from 1/1/2028 to 1/1/2031	No change to existing 250 g/L VOC limit pCBtF prohibition effective date would be 1/1/2024 pCBtF sell-through end date would be 1/1/2027 pCBtF use-through end date would be 1/1/2028	120 g/L VOC limit upon rule adoption pCBtF prohibition effective date would be 1/1/2028 pCBtF sell-through end date would be 1/1/2029 pCBtF use-through end date would be 1/1/2030	120 g/L VOC limit upon rule adoption pCBtF prohibition effective date would be 1/1/2030 pCBtF sell-through end date would be 1/1/2031 pCBtF use-through end date would be 1/1/2032

*The No Project alternative means retaining the VOC limits and effective dates as established in the November 2022 version of Rule 1168.

Table 5-2
Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1168) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project (PAR 1168)	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Construction	**No Impacts** because no physical modifications involving construction are expected	**No Impacts** Same as Proposed Project	**No Impacts** Same as Proposed Project	**No Impacts** Same as Proposed Project
GHGs	**Less than Significant Impacts** because the type of chemicals used for reformulating compliant products are not known to contain any GHG compounds and any future reformulation with GHG compounds would not be expected to occur	**Less than Significant Impacts** Same as Proposed Project	**Less than Significant Impacts** Same as Proposed Project	**Less than Significant Impacts** Same as Proposed Project
Operation – VOC Emissions	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 1/1/~~2028~~2029; ~~0.135 tpd from 1/1/2028 through 1/1/2029~~ and 0.115 tpd from 1/1/2029 through 1/1/2030: d) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 1/1/~~2028~~2029 e) Rubber Vulcanization Adhesive - 0.02 tpd until 1/1/2029 f) Top and Trim Adhesive - 0.115 tpd until 1/1/2030	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.39 tpd through 1/1/2028 from: c) Rubber Vulcanization Adhesive - 0.29 tpd until 1/1/2028 d) Top and Trim Adhesive - 0.1 tpd until 1/1/2028	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 7/1/~~2027~~2028; ~~0.135 tpd from 7/1/2027 through 7/1/2028~~ and 0.115 tpd from 7/1/2028 through 1/1/2029: d) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 7/1/~~2027~~ 2028 e) Rubber Vulcanization Adhesive - 0.0.02 tpd until 7/1/2028 f) Top and Trim Adhesive - 0.115 tpd until 1/1/2029	**Potentially Significant Impacts** due to: Delayed VOC emission reductions of 0.146 tpd through 7/1/~~2028~~2029; ~~0.135 tpd from 7/1/2028 through 7/1/2029~~ and 0.115 tpd from 7/1/2029 through 1/1/2031: d) Clear, Paintable, Immediately Water-Resistant Sealant - 0.011 tpd until 7/1/~~2028~~2029 e) Rubber Vulcanization Adhesive - 0.02 tpd until 7/1/2029 f) Top and Trim Adhesive - 0.115 tpd until 1/1/2031

Table 5-2 (concluded)
Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1168) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project (PAR 1168)	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project
Operation – Toxicity	**Less than Significant Toxicity Impacts** because although PAR 1168 would delay the air quality benefit associated with the pCBtF phaseout and the corresponding reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives, the t-BAc and pCBtF phaseout requirements established in the November 2022 version of Rule 1168 would remain in place and continue to apply under PAR 1168, with only the applicable phaseout dates for Roof Adhesive Primers and Battery Adhesives being extended. No other changes affecting toxic air contaminants are expected.	**Less than Significant Toxicity Impacts** because the t-BAc and pCBtF phaseout requirements, including the applicable prohibition effective dates, sell-through end dates, and use-through end dates established in the November 2022 version of Rule 1168, would remain unchanged.	**Less than Significant Toxicity Impacts** - Same as Proposed Project**.**	**Less than Significant Toxicity Impacts** - Same as Proposed Project**.**
Operation – Odor Nuisance	**Less than Significant Odor Nuisance Impacts** because PAR 1168 would not change the types of adhesives and sealants subject to Rule 1168 or the manufacturing processes and types of chemicals used and, therefore, would not result in new or different sources of odor.	**Less than Significant Odor Nuisance Impacts** - Same as Proposed Project**.**	**Less than Significant odor nuisance impacts** - Same as Proposed Project**.**	**Less than Significant odor nuisance impacts** - Same as Proposed Project**.**

5.5 ALTERNATIVES REJECTED AS INFEASIBLE

In accordance with CEQA Guidelines Section 15126.6(c), a CEQA document should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Section 15126.6(c) also states that among the factors that may be used to eliminate alternatives from detailed consideration in a CEQA document are: 1) failure to meet most of the basic project objectives; 2) infeasibility; or 3) inability to avoid significant environmental impacts.

As noted in Section 5.1, the range of feasible alternatives to the proposed project is limited by the nature of PAR 1168 and associated legal requirements. Similarly, the range of alternatives considered, but rejected as infeasible is also relatively limited. This subsection identifies Alternative A, as being rejected due to infeasibility, for the reasons explained in the following discussion.

5.5.1 Alternative A - No Project

CEQA documents typically assume that the adoption of a No Project alternative would result in no further action on the part of the project proponent or lead agency. For example, in the case of a proposed land use project such as a housing development, adopting the No Project alternative terminates further consideration of that housing development or any housing development alternative identified in the associated CEQA document. In that case, the existing setting would typically remain unchanged.

However, by not adopting PAR 1168, Alternative A would require: 1) the categories of Top and Trim Adhesive, Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant to meet the VOC limits and corresponding effective dates established in the November 2022 version of Rule 1168; and 2) Roof Adhesive Primers and Battery Adhesives (currently included under All Other Adhesives) to comply with the pCBtF prohibition effective date, sell-through end date, and use-through end date established in the November 2022 version of Rule 1168, even though the technology assessment concluded that it is technologically infeasible for the above noted categories to meet the VOC limits and comply with the pCBtF phaseout requirements within the timeframes currently established in the November 2022 version of Rule 1168. Thus, implementation of Alternative A would create potential compliance issues for manufacturers and distributors of the affected categories of adhesives and sealants.

The main objectives of the proposed project are to: 1) reduce VOC emissions from adhesives and sealants by establishing technologically feasible effective dates for compliance with the VOC limits established in the November 2022 version of Rule 1168; and 2) reduce potential exposure to pCBtF and t-BAc by establishing technologically feasible prohibition, sell-through, and use-through dates for products subject to Rule 1168.

Alternative A is, therefore, rejected as infeasible because it does not meet the objectives of the proposed project nor takes into consideration the conclusions of the technology assessment

and the Stationary Source Committee's direction to take a precautionary approach evaluating existing or proposed exemptions for any compound with a toxic endpoint.

5.6 LOWEST TOXIC AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE

5.6.1 Lowest Toxic Alternative

In accordance with South Coast AQMD's policy document: Environmental Justice Program Enhancements for FY 2002-03, Enhancement II-1 recommends for all South Coast AQMD CEQA documents which are required to include an alternatives analysis, the alternative analysis shall also include and identify a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous or toxic air contaminants.

Relative to toxic air contaminants, some manufacturers of adhesives and sealants currently use compounds in their product formulations that are VOCs but may also be considered toxic air contaminants (e.g., toluene). For any formulations that contain toxic compounds that are also classified as VOCs, the VOC limits established in the November 2022 version of Rule 1168, PAR 1168, and the alternatives serve to limit the overall toxicity of product formulations. However, other toxics, such as pCBtF, which are currently exempt from the definition of what qualifies as a VOC as set forth in Rule 102, if relied upon to reformulate products capable of meeting particular VOC limits, could result in a formulation with a low VOC content but a high toxicity. This is especially true if pCBtF is relied upon as a non-VOC substitute because it is carcinogenic with very high cancer potency factor.

While the purpose of Rule 1168 is to minimize VOC emissions from adhesive and sealant products, the November 2022 version of Rule 1168 prohibited the use of t-BAc and pCBtF due to toxicity concerns so as to also minimize consumer exposure to air toxics during the application of adhesives and sealants. PAR 1168 and Alternatives A, B, and C would retain the t-BAc and pCBtF phaseout requirements established in the November 2022 version of Rule 1168. However, the alternatives differ with respect to the timing of the pCBtF prohibition, sell-through, and use-through dates for Roof Adhesive Primers and Battery Adhesives.

Alternative A would retain the pCBtF prohibition, sell-through, and use-through dates established in the November 2022 version of Rule 1168 and, therefore, provide the earliest reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives. However, as explained previously, Alternative A is rejected as infeasible. Of the remaining alternatives, Alternative B would establish the applicable pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives 12 months earlier than PAR 1168. On the other hand, Alternative C would further delay the applicable pCBtF phaseout dates for Roof Adhesive Primers and Battery Adhesives by 12 months compared to PAR 1168. Therefore, among the remaining feasible alternatives, Alternative B would be the most beneficial in terms of reducing the public exposure to toxic impacts of pCBtF because it would provide the earliest reduction in potential exposure to pCBtF for Roof Adhesive Primers and Battery Adhesives.

Moreover, although Alternative B would require certain categories of adhesives and sealants to meet the VOC limits established in the November 2022 version of Rule 1168 by six to 12 months earlier than PAR 1168, Alternative C would require these same categories to meet the applicable VOC limits by six to 12 months later than PAR 1168. As a result, Alternative B would require manufacturers to reformulate the affected categories of adhesives and sealants to have lower VOC contents sooner, potentially resulting in fewer toxic compounds. Meanwhile, Alternative C would allow the continued use of products with more VOC emissions for a longer period, potentially resulting in greater exposure to toxic compounds. Therefore, Alternative B would provide earlier VOC emission reductions and could potentially result in products with fewer VOCs and fewer to no toxic compounds earlier than PAR 1168 and Alternative C.

Based upon preceding discussion, when considering all of the alternatives from toxic impacts perspective, Alternative B is the lowest toxic alternative.

5.6.2 Environmentally Superior Alternative

Pursuant to CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project alternative, the CEQA document shall also identify an alternate environmentally superior alternative from among the other alternatives.

Alternative A would require: 1) the categories of Top and Trim Adhesive, Rubber Vulcanization Adhesive, and Clear, Paintable, Immediately Water-Resistant Sealant to meet the VOC limits and corresponding effective dates established in the November 2022 version of Rule 1168; and 2) Roof Adhesive Primers and Battery Adhesives to comply with the pCBtF prohibition effective date, sell-through end date, and use-through end date established in the November 2022 version of Rule 1168. Therefore, among all alternatives, Alternative A would provide the earliest VOC emission reductions and reduction in potential exposure to pCBtF. However, as discussed previously, the technology assessment concluded that it is technologically infeasible for the aforementioned categories to comply with the applicable VOC limits and pCBtF phaseout requirements within the timeframes established in the November 2022 version of Rule 1168.

Of the remaining feasible alternatives, Alternative B would require certain categories of adhesives and sealants to comply with the VOC limits established in the November 2022 version of Rule 1168 by six to 12 months earlier than PAR 1168, whereas Alternative C would delay compliance with the applicable VOC limits by six to 12 months compared to PAR 1168. Therefore, when compared to PAR 1168 and Alternative C, Alternative B would result in fewer delayed VOC emission reductions and would achieve VOC emission reductions sooner.

Alternative B would also establish the pCBtF prohibition, sell-through, and use-through dates for Roof Adhesive Primers and Battery Adhesives 12 months and 24 months earlier than those under PAR 1168 and Alternative C, respectively, thereby providing an earlier reduction in potential exposure to pCBtF.

Based upon preceding discussion, relative to PAR 1168 and the other feasible alternatives, Alternative B would be considered the environmentally superior alternative.

5.7 CONCLUSION

As discussed previously, Alternative A was dismissed as infeasible because it would not fulfill the objectives of PAR 1168. Of the remaining feasible alternatives, Alternative B would provide the earliest VOC emission reductions for certain categories of adhesives and sealants and the earliest reduction in potential exposure to pCBtF from Roof Adhesive Primers and Battery Adhesives by establishing earlier pCBtF phaseout dates and, therefore, would be considered both the lowest toxic and environmentally superior alternative. However, the technology assessment identified that additional time is needed for manufacturers to develop commercially available formulations for certain categories of adhesives and sealants that meet the VOC limits and pCBtF phaseout requirements established in the November 2022 version of Rule 1168. While Alternative B may be the environmentally superior alternative, uncertainty regarding the ability of manufacturers to meet the applicable VOC limits and pCBtF phaseout requirements within the earlier compliance timeframes may not be fully realistic as a practical matter. **Thus, when comparing the environmental effects of the project alternatives with PAR 1168 and evaluating the effectiveness of achieving the project objectives, the proposed project provides the best balance in achieving the project objectives while minimizing the significant adverse environmental impacts to operational air quality.**

CHAPTER 6

REFERENCES

6.0 REFERENCES

The following list of references is presented by chapter, in order of appearance:

Chapter 1 – Executive Summary

1. The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., Ch. 324 (codified at Health and Safety Code Section 40400-40540).
2. CEQA Guidelines, Title 14 California Code of Regulations Section 15000 et seq.
3. Health and Safety Code Section 40460(a).
4. Health and Safety Code Section 40440(a).
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CHAPTER 7

ACRONYMS

7.0 ACRONYMS

µg/m= micrograms per cubic meter

APS = Alternative Planning Strategy (APS)

AQMP = Air Quality Management Plan

ATCM = Airborne Toxic Control Measure

Basin = South Coast Air Basin

BAU = business-as-usual

CAA = Clean Air Act

CalEPA = California Environmental Protection Agency

CARB = California Air Resources Board

CCR = California Code of Regulations

CEC = California Energy Commission

CEQA = California Environmental Quality Act

CFR = Code of Federal Regulations

CH4 = methane

CO = carbon monoxide

CO2 = carbon dioxide

CO2eq = carbon dioxide equivalent

COHb = carboxyhemoglobin

CPR = Consumer Products Regulation

CPUC = California Public Utilities Commission

CPVC = Chlorinated Poly (Vinyl Chloride)

EA = Environmental Assessment

EIR = Environmental Impact Report

EISA = Energy Independence and Security Act

EJ = Environmental Justice

gal = gallons

GHG = greenhouse gases

GWP = global warming potential

H2S = hydrogen sulfide

H2SO4 = sulfuric acid

HCFC = hydrochlorofluorocarbon

HF = hydrofluoric acid

HFC = hydrofluorocarbons

HI = hazard index

HSC = Health and Safety Code

IOUs = investor-owned utilities (IOUs)

IS = Initial Study

LCFS = Low Carbon Fuel Standard

MATES = Multiple Air Toxics Exposure Studies

MDAB = Mojave Desert Air Basin

MPOs = Metropolitan Planning Organizations

N2O = nitrous oxide

NAAQS = National Ambient Air Quality Standards

ND = Negative Declaration

NHTSA = National Highway Traffic and Safety Administration

NO = nitric oxide

NO2 = nitrogen dioxide

NOC = Notice of Completion

NOP/IS = Notice of Preparation/Initial Study

NOx = oxides of nitrogen

O2 = oxygen

O3 = ozone

ODS = ozone depleting substance

OEHHA = Office of Environmental Health Hazard Assessment

OES = Office of Emergency Services

OPR = Office of Planning and Research

OSHA = Occupational Safety and Health Administration

PAR = Proposed Amended Rule

pCBtF = parachlorobenzotriflouride

PFAS = perfluoroalkyl and polyfluoroalkyl substances

PFC = perfluorocarbon

PM = particulate matter

PM10 = particulate matter with an aerodynamic diameter of 10 microns or less

PM2.5 = particulate matter with an aerodynamic diameter of 2.5 microns or less

ppb = parts per billion

ppm = parts per million

PRDI = Planning, Rule Development, and Implementation

PV = photovoltaic

RELs = Reference Exposure Levels

RFS = renewable fuel standard

RPS = renewables portfolio standard

RTAC = Regional Target Advisory Committee

RTP = Regional Transportation Plan

SCAB = South Coast Air Basin

SCAG = Southern California Association of Governments

South Coast AQMD = South Coast Air Quality Management District

SCS = sustainable communities strategy

SEA = Subsequent Environmental Assessment

SF6 = sulfur hexafluoride

SIP = State Implementation Plan

SO2 = sulfur dioxide

SO3 = sulfur trioxide

SOx = oxides of sulfur

SSAB = Salton Sea Air Basin

TACs = toxic Air Contaminants

t-BAc = tertiary-Butyl Acetate

tpd = ton or tons per day

U.S. EPA = United States Environmental Protection Agency

Vehicle Mile Traveled = VMT

VOC = volatile organic compound(s)

ZE/NZE = zero emission and near-zero emission

APPENDIX A

Proposed Amended Rule (PAR) 1168 – Adhesive and Sealant Applications

In order to save space and avoid repetition, please refer to the latest version of PAR 1168 located elsewhere in the Governing Board Agenda for the public hearing scheduled on December 4, 2026. The version of PAR 1168 that was circulated with the Draft SEA for a 46-day public review and comment period from September 18, 2026 to November 3, 2026 was identified as the "Preliminary Draft Rule PAR 1168, revision date September 18, 2026," which is available from the South Coast AQMD's website at: https://www.aqmd.gov/docs/default-source/rule-book/proposed-rules/1168/par-1168---pdrl.pdf. An original hard copy of the Draft SEA, which included the draft version of PAR 1135 listed above, can be obtained through the South Coast AQMD Public Information Center by phone at (909) 396-2001 or by email at PICrequests@aqmd.gov.

ATTACHMENT J

Proposed Amended Rule 1168: Adhesive and Sealant Applications

Governing Board Presentation

December 4, 2026

Rule 1168 Background

Adopted in 1989, amended 15 times

- Regulates volatile organic compound (VOC) emissions from adhesives, adhesive primers, sealants, and sealant primers
- Last amended in 2022, included *para*-Chlorobenzotrifluoride (pCBtF) *and* tert-butyl acetate (t-BAc) phase-out schedule

Public Process Began June 2026

- One technology check-in meeting
- Two working group meetings
- One public workshop

Need for Amendment

2022 Rule Amendment Required Technology Check-In for pCBtF/t-BAc Phase Out

November 2022

Rule amended to phase out pCBtF and delayed several future effective VOC limits

June 2026

Initiated rule amendment

- Identified three categories with upcoming deadlines that need additional time

November 2025

Technology check-in conducted on pCBtF phase out

- Most reformulations are pCBtF-free and meet VOC limit
- Roof adhesive primers need additional time

Proposed Amendments

1. Provide additional time for pCBtF phase out and VOC reductions for several categories
2. Propose additional toxic compound prohibitions
3. Remove 55-gallon exemption
4. Clarify and streamline reporting and recordkeeping requirements

1 Proposed Extended Regulatory Deadlines

pCBtF Prohibition Extension

Two categories need more time to phase out of pCBtF:

- Roof Adhesive Primers
- Battery Adhesive

- Extend phase-out up to three years
- Introduce alternative reactivity-based VOC limit for Roof Adhesive Primers*

VOC Limit Extension

Three categories need more time to lower VOC levels:

- Top and Trim Adhesive
- Rubber Vulcanization Adhesive
- Clear, Paintable, and Immediately Water Resistant Sealant

- Extend lower VOC limit timelines up to three years
  - Delayed emission reductions: 0.15 ton per day
- Introduce alternative reactivity-based VOC limit for Top and Trim*

*Approach consistent with recent rule amendments for challenging categories with limited alternative formulations

2 Toxic Compound Phase Out

Volatile methyl siloxanes (VMS)

- South Coast AQMD defines as potentially toxic
- In 1995, OEHHA identified non-cancer chronic toxic endpoint
- September 2025, U.S. EPA preliminary evaluation indicated unreasonable risk for certain consumer use

Dimethyl Carbonate (DMC)

- Exempted as VOC by U.S. EPA, but not exempted by South Coast AQMD due to toxicity concerns
- Reactivity-based limits could incentivize manufacturers to reformulate with DMC

- Staff is only aware of minimal use of these compounds
- Allowing time to reformulate
- Ensures products do not transition from pCBtF and t-BAc to VMS and DMC formulations

Objectives of Proposed Amendments to Rule 1168

3

Sunset 55 Gallon Exemption

Facilities allowed to use 55 gallons non-compliant product per year

- No facilities report using exemption
- One facility intends to use during reformulation

- Sunset January 1, 2029

4

Clarify Reporting

Reporting inconsistencies identified for manufacturers and distributors

- Clarified requirements
- Removed reporting for distributors, only require recordkeeping

California Environmental Quality Act (CEQA)

- Subsequent Environmental Assessment prepared tiering off two previous analyses
- Delayed VOC emission reductions up to 0.15 ton per day expected until January 2030
  - Potentially significant air quality impacts during operation
  - No feasible mitigation measures identified
  - Less than significant or no impact to other environmental topic areas
- 46-day public review and comment period; no comment letters received
- Findings and Statement of Overriding Considerations prepared

Socioeconomic Impact Assessment

- Overall cost savings due to extending timelines for manufacturers to phase out pCBtF and meet future VOC limits
- Minimal socioeconomic impacts from VMS and DMC phase out
  - Limited usage in current formulations
  - Alternative compliant formulations without DMC currently available at equivalent prices

Staff Recommendations

Certify the Final Subsequent Environmental Assessment for PAR 1168

Amend Rule 1168 – Adhesive and Sealant Applications

Direct staff to submit PAR 1168 to CARB and U.S. EPA for inclusion into the State Implementation Plan