

Proposed Amended Rule 1107: *Coating of Metal Parts and Products*

Proposed Amended Rule 1124: *Aerospace Assembly and Component Manufacturing Operations*

Proposed Amended Rule 1136: *Wood Products Coatings*

Working Group Meeting #2
August 21, 2024



Join Zoom Webinar

<https://scaqmd.zoom.us/j/95678446098>

Webinar ID: 956 7844 6098

Teleconference Dial-In: +1 669 900 6833

AGENDA



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graph LR; A[AGENDA] --- B(( )); B --- C[Rule Development Process]; B --- D(( )); D --- E[Stakeholder Meetings and Site Visits]; D --- F(( )); F --- G[Stakeholder Survey]; F --- H(( )); H --- I[Next Steps];
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Rule Development Process

Stakeholder Meetings and Site Visits

Stakeholder Survey

Next Steps

Progress of Rule Development

Summary of Working Group Meeting #1 (07/9/2024)

- Provided background on the rule development process and need for the proposed amendments
- Discussed the proposed approach to phase out and prohibit the use of parachlorobenzotrifluoride (pCBtF) and *tert*-Butyl Acetate (tBAC)
- Provided information on a survey for coatings manufacturers

Since last Working Group Meeting

- Staff continued meeting with stakeholders
- Distributed a survey on volatile organic compound (VOC) containing products subject to Rules 1107, 1124, and 1136
- Went on site visits to affected facilities

Stakeholder Meetings and Site Visits

Updated Slide

- Staff held individual meetings with stakeholders including coatings manufacturers and end users
- Staff conducted four site visits
 - Additional site visits planned for the upcoming months
 - Types of facilities visited encompass metal powder coating, metal Teflon coating, aerospace facilities, and a theme park coating operation
- Coating categories observed include:
 - General one-component, general two-component, heat resistant, military specification, pan backing, pretreatment





Stakeholder Survey



Stakeholder Survey Objectives

Survey will ask coating manufacturers about all coatings sold into or within South Coast AQMD jurisdiction

- Will assist South Coast AQMD staff understand the extent to which exempt solvents are used to formulate compliant products
- The survey covers coating categories and other products regulated by Rules 1107, 1124, and 1136
- The information gathered will be used to evaluate the coatings market within South Coast AQMD

Main compounds of interest are:

- pCBtF - CAS#: 98-56-6
- tBAc - CAS #: 540-88-5

Survey will help staff:

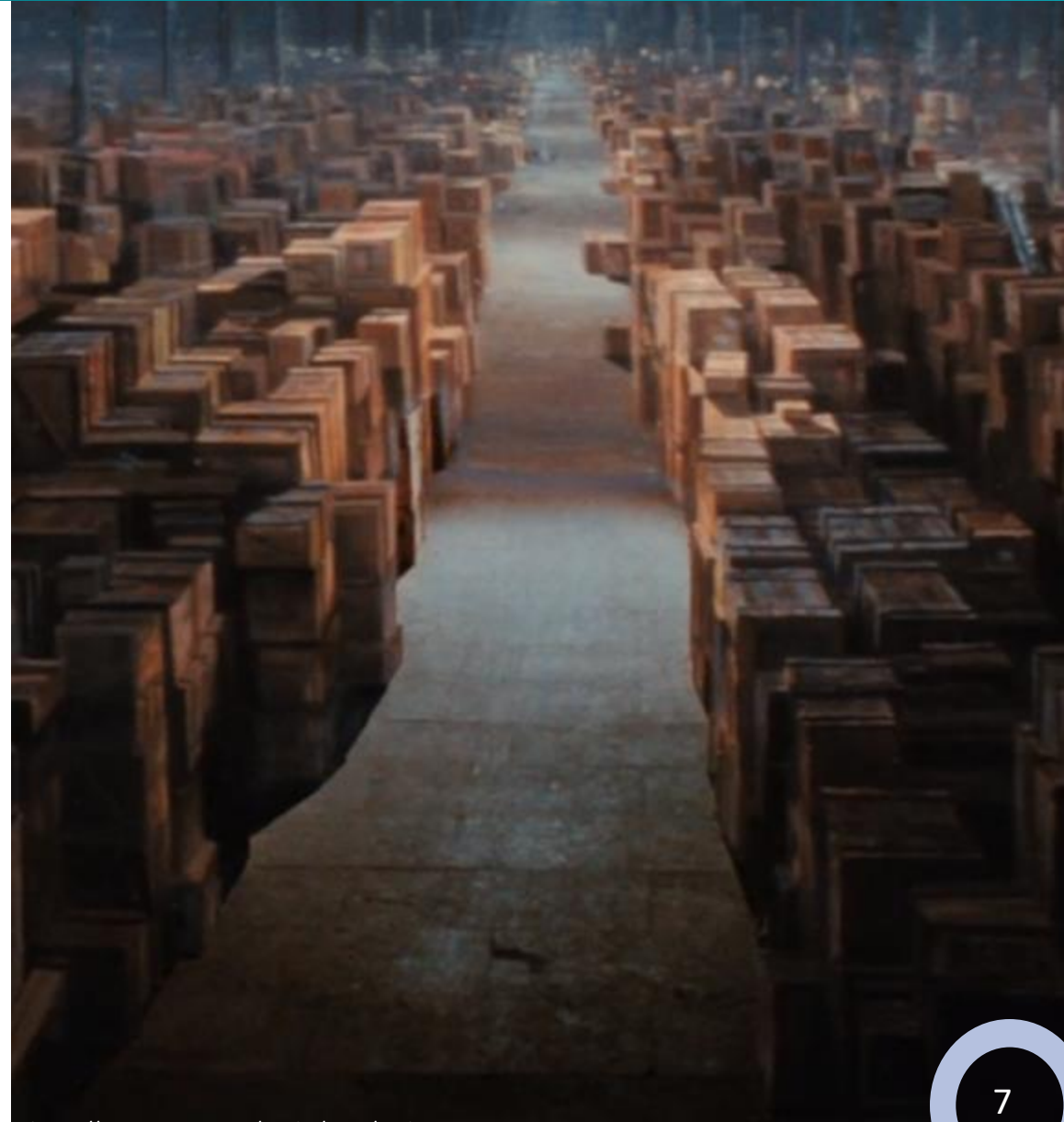
- Evaluate VOC content limits
- Propose feasible prohibition timelines for pCBtF and tBAc



Confidentiality and Public Records Requests


- Staff understands some of the information being requested is considered business confidential
- As a public agency the South Coast AQMD must comply with the California Public Records Act*
 - California Government Code section 7924.510(d) explains that facilities may request a trade secret exemption from disclosure of information
- Staff requests that manufacturers indicate which information provided in the survey is considered confidential
 - Staff will not share publicly any confidential data but will aggregate the data to show trends and emissions
- In the event South Coast AQMD receives a Public Records Request, staff will reach out to manufacturers to confirm which information is confidential and request additional information, if needed

*For additional information on the Public Records Request process use the following link: [Public Records Act Guidelines and South Coast AQMD Rules](#)



Manufacturer Information

- Tab 1: Manufacturer Information
 - Contains general manufacturer and contact person information
 - The information provided will allow staff to follow up if needed
 - Contains confidentiality check box
 - If marked yes, please specify which information provided in the survey is considered confidential

 South Coast Air Quality Management District P.O. Box 4944 Diamond Bar, CA 91765 (909) 396-2000		South Coast AQMD RULE(S) -		
SECTION (A): MANUFACTURER INFORMATION				
Legal Name of Manufacturer (as listed on manufacturer label):	Reporting Year:			
Street Address:	City:	State:	Zip Code:	Date Report Completed:
Responsible Party:	Position:	Phone Number:	E-Mail Address:	Comments/Notes:
Is any information included in this report considered confidential? For more information on the Public Records Requests process please see the following link: Public Records Act Guidelines and SCAQMD Rules <input type="checkbox"/> Yes (If yes, please specify what information is confidential below) <input type="checkbox"/> No				



Stakeholder Survey Instructions

VOC LIMITS Less Water and Less Exempt Compounds				
Coating	Air-Dried		Baked	
	g/L	lb/gal	g/L	lb/gal
General One-Component	275	2.3	275	2.3
General Multi-Component	340	2.8	275	2.3
Military Specification	340	2.8	275	2.3
Etching Filler	420	3.5	420	3.5
Solar-Absorbent	420	3.5	360	3.0
Heat-Resistant	420	3.5	360	3.0
Extreme High-Gloss	340	2.8	360	3.0
Metallic	420	3.5	360	3.0
Extreme Performance	420	3.5	360	3.0
Prefabricated Architectural One-Component	275	2.3	275	2.3
Prefabricated Architectural Multi-Component	340	2.8	275	2.3
Touch Up	420	3.5	360	3.0
Repair	420	3.5	360	3.0
Silicone Release	420	3.5	420	3.5
High-Performance Architectural	420	3.5	420	3.5
Camouflage	420	3.5	360	3.0
Vacuum-Metalizing	420	3.5	420	3.5
Mold-Seal	420	3.5	420	3.5
High-Temperature	420	3.5	420	3.5
Electric-Insulating Varnish	420	3.5	420	3.5
Pan Backing	420	3.5	420	3.5
Pretreatment Coatings	420	3.5	420	3.5

- Designed to provide guidance and clarification on how to complete the survey
- Provides contact information of rule writer assigned to each rule
- Contains current VOC limits in Rules 1107, 1124, and 1136
- Each rule has its own tabs, differentiated by different colors, as shown below

INSTRUCTIONS (1107)

1107 COATING MFR SURVEY

INSTRUCTIONS (1124)

1124 COATING MFR SURVEY

INSTRUCTIONS (1136)

1136 COATING MFR SURVEY

Stakeholder Survey Instructions Columns A to I

- Select the relevant rule tab(s) and enter the data for each field
- Complete each tab by entering the listed information for all metal, aerospace, and wood coatings sold in and for use in the South Coast AQMD
- Columns A to I request information about the coatings including:
 - Product code
 - Product name
 - Subsidiary company
 - Applicable coating category
 - Coating base (water or solvent)
 - Single or multicomponent
 - Air dried or baked (Rule 1107)
 - Contains low solids (Rules 1124 and 1136)
 - pCBtF percentage by weight
 - tBAC percentage by weight
- See the definitions in Rules 1107, 1124, and 1136 to help determine applicable coating categories

A	B	C	D
SECTION (B): METAL COATINGS			
PRODUCT CODE	PRODUCT NAME	SUBSIDIARY COMPANY (If applicable)	APPLICABLE COATING CATEGORY (Please Select Category)
1234 A	Product A	N/A	Camouflage
1234 B	Product B	N/A	Camouflage
1234 C	Product C	Sub Coating Company	Extreme Performance
1234 D	Product D	N/A	General Multi-Component
1234 E	Product E	N/A	General One- Component

VOC of Coating, VOC of Material, and Volume Sold

- Enter the VOC of Coating (g/L) **as applied** in designated column
 - The VOC of coating/colorant/adhesive is the same as the term “regulatory VOC,” which is equivalent to VOC, less water and exempts
- Enter the VOC of Material (g/L) **as applied** in designated column
 - The VOC of material is the same as the term "actual VOC," which is equivalent to VOC, including water and exempts
- Enter the total volume, in gallons, of sales within California **OR** South Coast AQMD in designated column
 - South Coast AQMD sales data is preferred, if possible
- Please indicate area of the sales volume (California or South Coast AQMD) in designated columns

VOC OF COATING (REGULATORY VOC) AS APPLIED (g/L) <small>[Less water and exempt solvents]</small>	VOC OF MATERIAL (ACTUAL VOC) AS APPLIED (g/L)	TOTAL ANNUAL VOLUME (gal) SOLD IN & FOR USE IN SOUTH COAST AQMD (PREFERRED) OR CALIFORNIA (IF SOUTH COAST AQMD DATA IS UNAVAILABLE)	PLEASE INDICATE IF THE VOLUMES IN COLUMN L REPRESENT SOUTH COAST AQMD OR CALIFORNIA
520	265	10,000	South Coast AQMD
246	149	13,000	South Coast AQMD
237	208	60,000	South Coast AQMD
373	96	2,000	South Coast AQMD
272	77	22,000	South Coast AQMD
652	108	14,000	California
239	165	33,000	California
233	135	41,000	California

VOC of Coating (Regulatory VOC)

- VOC of coating is also known as regulatory VOC or Grams of VOC Per Liter of Coatings Less Water and Less Exempt Compounds
 - See paragraphs (b)(22), (b)(27), and (b)(21) in Rules 1107, 1124, and 1136 respectively
- VOC of coating is the metric used to determine compliance to the limits within South Coast AQMD Rules 1107, 1124, and 1136
- Column J contains the VOC content in grams per liter of the coating **as applied**, less water and exempt compounds*
- **Note:** W_s is the **combined** weight of the volatiles
 - Includes the weight of VOCs, exempt compounds, and water

Grams of VOC per Liter of Coating Less Water and Less Exempt Compounds

$$= \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds in grams
 W_w = weight of water in grams
 W_{es} = weight of exempt compounds in grams
 V_m = volume of material in liters
 V_w = volume of water in liters
 V_{es} = volume of exempt compounds in liters

VOC of Coating (Regulatory VOC) Calculation Example

$$\text{VOC of Coating/Regulatory VOC} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

100 grams of Coating A

Coating A Values:

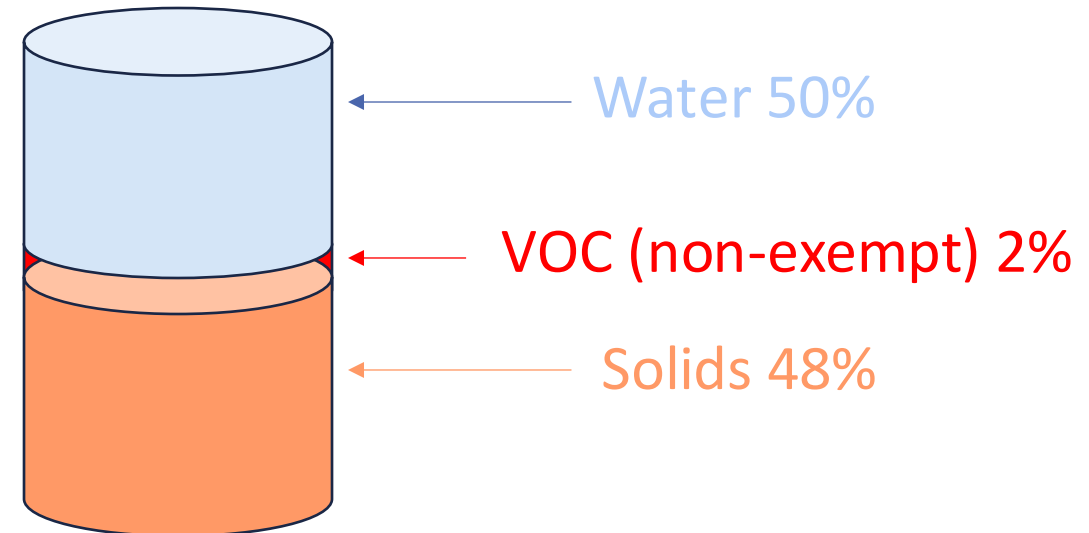
Density = 0.99 g/mL

Water content = 50% by weight

Density of water = 0.997 g/mL

VOC (non-exempt) = 2% by weight

Exempt compounds = 0% by weight



$$\text{VOC of Coating} = \frac{(52g - 50g)}{\left(\frac{100g}{0.99g/mL} - \frac{50g}{0.997g/mL}\right)} \times 1000 = 39 \text{ g/L}$$

Sample VOC of Coating Calculation with Exempt Compounds

$$\text{VOC of Coating/Regulatory VOC} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Coating B Values:

Density = 0.99 g/mL

Water content = 25% by weight

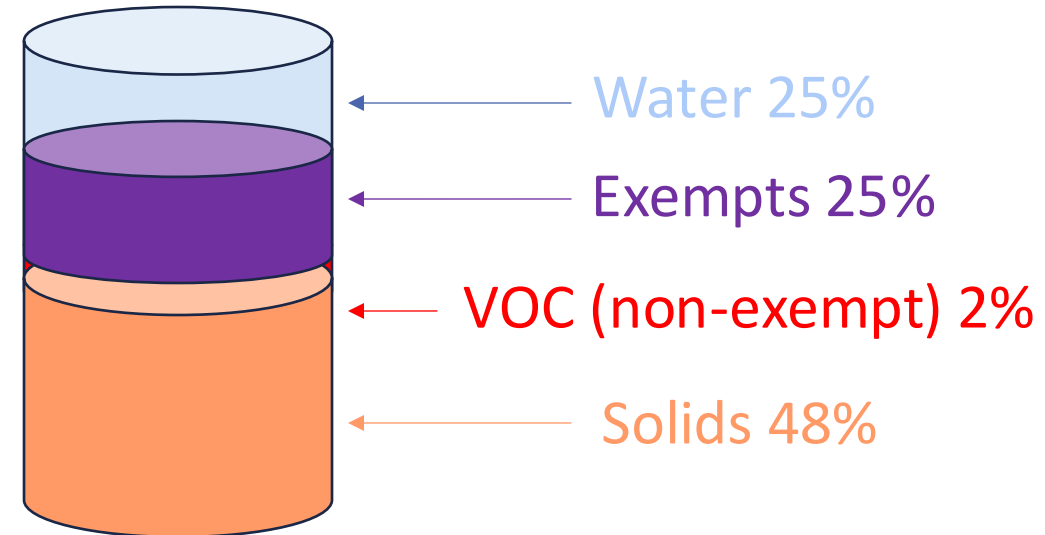
Density of water = 0.997 g/mL

VOC (non-exempt) = 2% by weight

Exempt compounds = 25%

Density of exempt (pCBtF) = 1.353 g/mL

100 grams of Coating B



$$\text{VOC of Coating} = \frac{(52g - 25g - 25g)}{\left(\frac{100g}{0.99g/mL} - \frac{25g}{0.997g/mL} - \frac{25g}{1.353g/mL}\right)} \times 1000 = 35 \text{ g/L}$$

VOC of Material (Actual VOC)

- VOC of material is also known as actual VOC or Grams of VOC Per Liter of Material
 - See paragraphs (b)(23), (b)(28), and (b)(22) in Rules 1107, 1124, and 1136 respectively
- This column contains the VOC content in grams per liter of the coating **as applied**, including water and exempt compounds
- VOC emissions, including the emissions fee in Rule 314 – Fees for Architectural Coatings, are also calculated based on the VOC of material

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where: W_s = weight of volatile compounds in grams
 W_w = weight of water in grams
 W_{es} = weight of exempt compounds in grams
 V_m = volume of material in liters

VOC of Material (Actual VOC) Calculation Example

$$\text{VOC of Material/Actual VOC} = \frac{W_s - W_w - W_{es}}{V_m}$$

Coating A Values:

Density = 0.99 g/mL

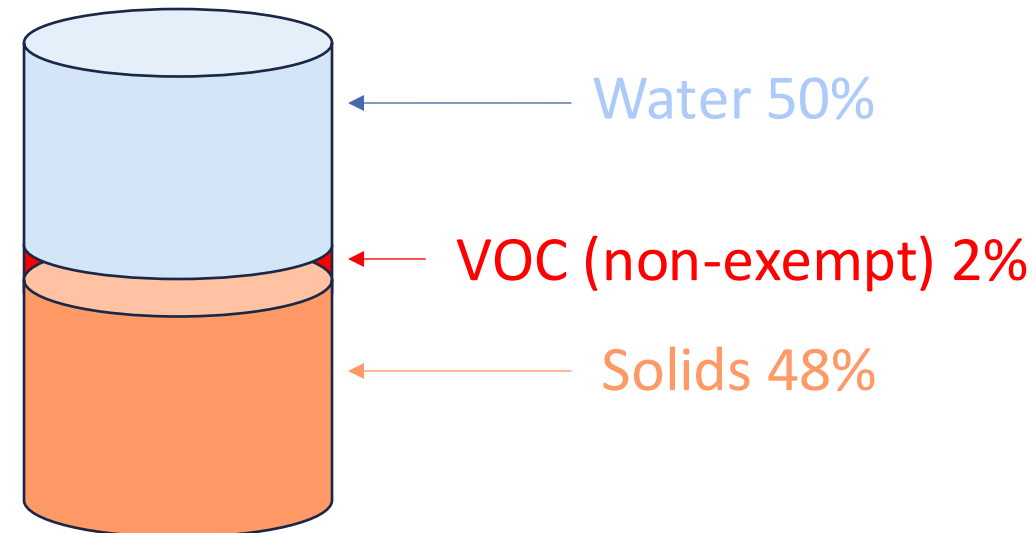
Water content = 50% by weight

Density of water = 0.997 g/mL

VOC (non-exempt) = 2% by weight

Exempt Compounds = 0% by weight

100 grams of Coating A



$$\text{VOC of Material} = \frac{(52g - 50g)}{\frac{100g}{0.99g/mL}} \times 1000 = 20 g/L$$

Sample VOC of Material Calculation with Exempt Compounds

$$\text{VOC of Material/Actual VOC} = \frac{W_s - W_w - W_{es}}{V_m}$$

Coating B Values:

Density = 0.99 g/mL

Water content = 25% by weight

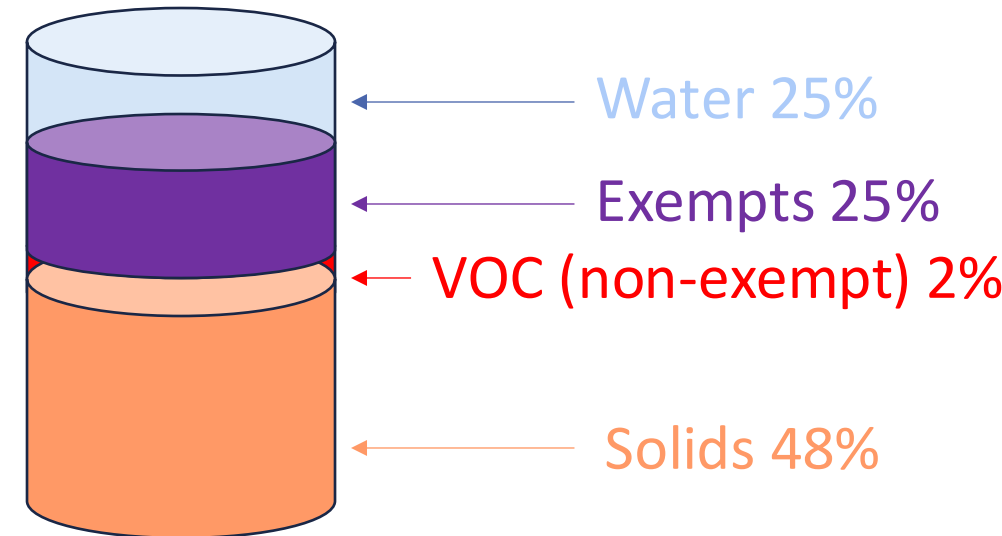
Density of water = 0.997 g/mL

VOC (non-exempt) = 2% by weight

Exempt compounds = 25% by weight

Density of exempt (pCBtF) = 1.353 g/mL

100 grams of Coating B



$$\text{VOC of Material} = \frac{(52g - 25g - 25g)}{\left(\frac{100g}{0.99g/mL}\right)} \times 1000 = 20 g/L$$

Stakeholder Survey Timeline

pCBtF/tBAc Survey

- The survey was distributed on August 7, 2024

- Aiming to have all responses submitted by October 22, 2024

- Assess extent of pCBtF and tBAc use
- Propose a feasible prohibition timeline

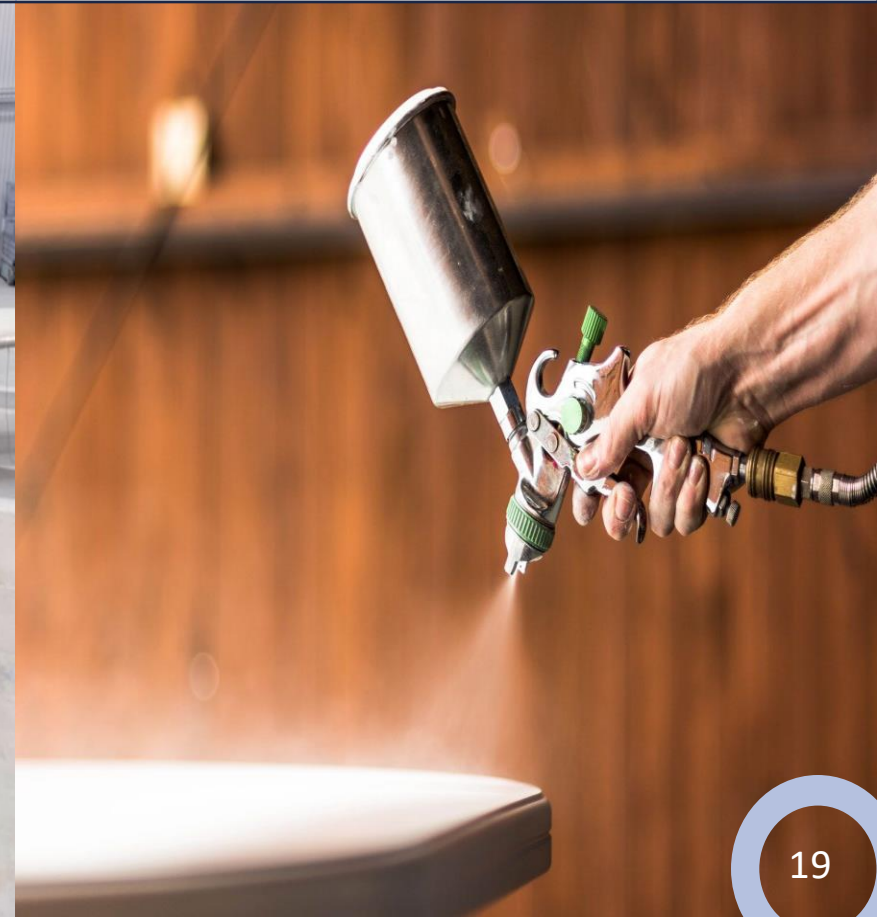
- Assess opportunities for VOC reductions
- Determine proposed VOC limits

Who to send the survey information to?

Rule 1107 – Joshua Ewell
jewell@aqmd.gov

Rule 1124 – Sergio Torres
scallejas@aqmd.gov

Rule 1136 – Mojtaba Moghani
mmoghani@aqmd.gov



Next Steps



Continue conducting site visits



Report stakeholder survey results at the next Working Group meeting



Continue to have individual stakeholder meetings



Anticipated Public Hearings in 2025



Staff will likely begin holding separate Working Group Meetings for each of the Proposed Amended Rules

Working Group Materials

- Working Group materials for each Working Group meeting will be made available:

<https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules>

The screenshot shows the South Coast AQMD website. The main navigation menu includes: AIR QUALITY, INCENTIVES & PROGRAMS, RULES & COMPLIANCE (highlighted), PERMITS, NEWS, WEBCASTS, & CALENDAR, TECHNOLOGY ADVANCEMENT, RESOURCES, and MEETING AGENDAS & MINUTES. The breadcrumb trail is: Home / Rules & Compliance / Rules / South Coast AQMD Rule Book / Proposed Rules. The page title is "Proposed Rules and Proposed Rule Amendments".

On the left side, there is a sidebar menu with the following items: Proposed Rules (highlighted), Guide to South Coast AQMD Rules, Archived, and Recent Actions.

The main content area contains the following text:

This page includes a list of rules that are actively in rule development or have recently been proposed and/or amended.

Information regarding Working Group Meetings, Public Workshops, and supporting documents such as presentations, draft staff reports, draft proposed rules, comment letters received, and other information can be found by clicking the rule in the table.

Information associated with the rule development process for rules that were adopted or amended within the past five years can be found on our [Archived Page](#).

Please refer to the [South Coast AQMD Rule Book](#) to obtain the current list of adopted or amended rules and regulations.

For current rule forecast please see the monthly [Governing Board Agenda](#).

Rule Name	Description
Regulation III	Fee Rules
Rule 218.2 and Rule 218.3	Proposed Rule 218.2 - Continuous Emission Monitoring System: General Provisions Proposed Rule 218.3 - Continuous Emission Monitoring System: Performance Specifications

Receiving Rulemaking Updates

- To receive email updates, sign up at South Coast AQMD sign up page

<http://www.aqmd.gov/sign-up>

- Enter email address and name
- Subscribe by scrolling down to “Rule Updates” and check the box for Rules 1107, 1124, and/or 1136 and click on the subscribe button at bottom of page
- An email will be sent to confirm
- Future meeting notices, links to documents, and any updates will be sent via email

During this difficult time, South Coast AQMD is committed to protecting air quality and public health. Please visit our COVID-19 page for the operational updates and latest information. [Learn more.](#)

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If you wish to receive daily pollution forecasts or alerts for specific pollution levels in your area, sign up for [Air Alerts](#).

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Subscribe by checking the box adjacent to the E-Mail List(s) you are interested in and then CLICK on the Subscribe button below.

General Notifications:

Events & Conferences List of stakeholders interested in events and conferences.

Environmental Justice Conference Interest in attending a South Coast AQMD EJ Conference (More Information - TBD)

Brief updates highlighting what is current at South Coast AQMD, such as

Rule Updates:	
<input checked="" type="checkbox"/> Rule 1124	Aerospace Assembly and Component Manufacturing Operations
<input type="checkbox"/> Rule 1130	Graphic Arts
<input type="checkbox"/> Rule 1132	Further Control of VOC Emissions from High-Emitting Spray Booth Facilities

Staff Contact Information

Rule	1107	1124	1136
Air Quality Specialist	Joshua Ewell jewell@aqmd.gov 909.396.2212	Sergio Torres-Callejas scallejas@aqmd.gov 909.396.2231	Mojtaba Moghani mmoghani@aqmd.gov 909.396.2527
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Assistant DEO	Michael Krause mkrause@aqmd.gov 909.396.2706		