

# Proposed Amended Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II

# Proposed Amended Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

## WORKING GROUP MEETING #3



South Coast AQMD  
August 3, 2022  
10:00 AM

**Join Zoom Webinar Meeting:**

<https://scaqmd.zoom.us/j/93193546548>

**Zoom Webinar ID:**

931 9354 6548

**Teleconference Dial In: +1 669 900 6833**

# Agenda

---

- Working Group Meeting #2 Recap
- Response to Comments
- Proposed PAR 219 Rule Language
- Potential Deficiencies in Rule 219 Identified by U.S. EPA
- Rule 222 References
- Next Steps

# Working Group Meeting #2 Recap

- Staff provided proposed rule language for:
  - New UV/EB/LED exemptions
  - Removal of Rule 222 requirements
  - Enhanced Recordkeeping provisions
  - Consolidated test method rule language into a new Test Methods subdivision
  - Removal of archaic provisions in Compliance Dates subdivision
  - Demonstrating equipment is exempt from obtaining a written permit
- Discussed stakeholder request to exempt gas insulating equipment from permitting
- Previewed Rule 219 restructuring and Rule 222 amendments

# Stakeholder PAR 219 Comments From Previous Working Group Meeting

---

## Comment #1

What equipment changes would be exempt from permit modifications under the new proposed UV/EB/LED provisions?

---

## Comment #2

Low emission technologies (currently exempt from permits under Rule 219) should be listed as BACT

---

## Comment #3

Proposed Recordkeeping requirements are confusing as well as too stringent

---

## Comment #4

It is not clear the conditions that require a permit application to be submitted pursuant to proposed paragraph (s)(3)

---

## Comment #5

Clarification requested on the intent and scope of the Test Methods provisions

---

# Response to Comment #1: What equipment changes would be exempt from permit modifications under the new proposed UV/EB/LED provisions?

- Staff presented proposed provisions that would exempt certain changes to printing or coating equipment from requiring permit modifications
- Stakeholder comments:
  - Allowances for trace amounts of toxic air contaminants should be included in the exemption
  - The requirement regarding a “physical modification” should be clarified
  - Exemption should not be concerned with throughput increases when emissions are reduced
- Staff will present revised proposed language to address these comments, as well as clarify the intent of these provisions, in subsequent slides

## Response to Comment #2: Low emission technologies (currently exempt from permits under Rule 219) should be listed as BACT

- BACT Guidelines establish procedures and requirements for different classes and categories of commonly permitted equipment
- If BACT included Rule 219 exempt equipment, the provisions would apply only to that equipment category
  - For example, BACT standards for fuel cells used in power generation would only apply to fuel cells, and would not require their installation in place of other power-generating technologies
- Rulemaking process remains the best approach to advance lower emitting technologies

## Response to Comment #3: Proposed Recordkeeping requirements are confusing as well as too stringent

- The proposed enhanced Recordkeeping language presented was intended to clarify and strengthen recordkeeping requirements:
  - Made the recordkeeping requirements for non-VOC exemption thresholds explicit
  - Clearly established length of time that records should be maintained
- Staff has amended the proposed language to:
  - Remove conflicting language
  - Align the length of time that records should be maintained with recordkeeping requirements in other rules
- Amended proposed rule language is presented in subsequent slides

## Response to Comment #4: It is not clear the conditions that require a permit application to be submitted pursuant to proposed paragraph (s)(3)

- Equipment is not exempt from permit requirements if the risk from equipment is greater than thresholds in Rule 1401 [existing subparagraph (s)(2)(A)]
  - Health risk is determined based on numerous source-specific factors
  - Applies to equipment that may emit toxic air contaminants
- Proposed paragraph (s)(3) intended to clarify that South Coast AQMD can request additional information about equipment when the health risk cannot be determined
  - There have been instances where facilities would not submit adequate information for South Coast AQMD to assess health risk
- Staff has amended the proposed language to clarify that the Executive Officer may request a permit application when adequate information is unavailable
  - Amended proposed language is presented in the Proposed Exceptions Rule Language section of slides



# Response to Comment #5: Clarification requested on the intent and scope of the Test Methods provisions

- PAR 219 consolidated existing test method provisions into a separate subdivision
  - This provision is not an additional requirement for end users
  - Manufacturers almost always provide product information, which is typically available on the SDS and the container
- Comments received in Working Group Meeting #2:
  - Language in the Test Methods provision does not align with the language in other rules or in permits
  - Some test methods listed in source specific rules are not listed in South Coast AQMD's test method manual, which can cause confusion
- Staff believes that PAR 219 language should remain broad to allow for any approved test method to be used to verify materials' content and properties
- Subsequent slides contain amended proposed rule language to address test methods listed in source specific rules

# Proposed PAR 219 Rule Language

---

## (h) – Printing and Reproduction Equipment

- |     |  |
|-----|--|
| (8) | The addition of UV/EB/LED curing technology, or other technology, to existing permitted graphic arts equipment or operations if:   |
| (A) | Emissions or throughput do not increase above permitted limits;  |
| (B) | Any inks, coatings, solvents, or other materials associated with the technology do not contain toxic air contaminants; and   |
| (C) | There is no physical modification to the equipment, operation, or air pollution control system listed on the existing Permit to Operate, excluding the addition of UV/EB/LED curing equipment operated exclusively using electrical power. |

*\* Identical language was used for proposed paragraph (l)(8) in the Coating and Adhesive Process/Equipment subdivision, except for adjustments made to tailor it to the different equipment*

Proposed Permit  
Modification  
Exemption Provisions  
as Presented in  
Working Group  
Meeting #2

(h) – Printing and Reproduction Equipment

## Updated Proposed Rule Language for Permit Modification Exemptions

New language clarifies that:

- Equipment should operate in compliance with the existing permit
- Changes to existing permitted equipment would require permit modification, including changes to the configuration of existing APCE
- TACs, including trace amounts of TACs, are not allowed except those allowed in existing permit
- All associated materials should be low VOC

- (8) The addition of UV/EB/LED curing technology, or other curing or drying technology, to existing permitted graphic arts equipment or operations if:
- (A) The equipment or operation is operated in accordance with the conditions specified in the existing Permit to Operate;
  - (B) The equipment remains consistent with the description in the existing Permit to Operate, excluding the addition of curing or drying equipment operated exclusively using electrical power;
  - (C) There is no physical change to the configuration, including the ducting, of existing air pollution control equipment associated with the equipment or operation;
  - (D) There is no physical change to the configuration of an existing permanent total enclosure associated with the equipment or operation;
  - (E) All inks, coatings, solvents, or other materials associated with the technology do not contain any toxic air contaminants pursuant to Rule 1401 – New Source Review of Toxic Air Contaminants, as listed on the Safety Data Sheet, except as allowed under the existing Permit to Operate; and
  - (F) All inks, coatings and adhesives, fountain solutions, and VOC containing solvents associated with the technology (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents associated with the technology contain twenty-five (25) grams or less of VOC per liter of material.

## Updated Proposed Rule Language for Permit Modification Exemptions

Proposed paragraph (l)(12) uses language that is identical to language in paragraph (h)(8)

[See previous slide]

- (12) The addition of UV/EB/LED curing technology, or other curing or drying technology, to an existing permitted coating equipment or operation if:
- (A) The equipment or operation is operated in accordance with the conditions specified in the existing Permit to Operate;
  - (B) The equipment remains consistent with the description in the existing Permit to Operate, excluding the addition of curing or drying equipment operated exclusively using electrical power;
  - (C) There is no physical change to the configuration, including the ducting, of existing air pollution control equipment associated with the equipment or operation;
  - (D) There is no physical to the configuration of an existing permanent total enclosure associated with the equipment or operation;
  - (E) All coatings, solvents, or other materials associated with the technology do not contain any toxic air contaminants pursuant to Rule 1401, as listed on the Safety Data Sheet, except as allowed under the existing Permit to Operate; and
  - (F) All coatings, solvents, or other materials associated with the technology (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents associated with the technology contain twenty-five (25) grams or less of VOC per liter of material.

# Updated Proposed Rule Language for Subdivision (t) – Recordkeeping

---

- Replaced the proposed “daily or monthly records” requirement with broader statement to avoid conflict with the different types of records that may be required
- Removed the proposed text in subparagraph (t)(1)(B) to keep records of hazardous air pollutants
  - This may not be feasible, since HAPs are typically components in materials or byproducts of processing materials
  - Records such as materials usage or throughput records and Safety Data Sheets will be used to document the use of HAPs
- Timeframe for maintaining records changed to three years to line up with requirements in other recently amended rules

See new proposed rule language on next slide

**Revised**

## Updated Proposed Rule Language for Subdivision (t) – Recordkeeping

*(Strike out and underline  
text show proposed  
changes made since  
Working Group Meeting  
#2)*

- (1) Any owner or operator claiming an exemption under any provision of this rule shall maintain documentation and/or calculations sufficient to substantiate the applicability of the stated exemption provision, parameter, requirement or limitation ~~daily or monthly records to verify and maintain the exemption. The records~~ Documentations shall include, as applicable, but not be limited to:
  - (A) VOC-containing material throughput ~~or~~ and emissions, ~~maintained pursuant to Rule 109;~~
  - (B) ~~Any purchase and/or usage records of hazardous air pollutants as defined pursuant to 42 United States Code 7412 (b) effective as of [Date of Rule Amendment];~~ VOC content of VOC-containing materials, including:
    - (i) The VOC content of each material, as applied, less water and exempt compounds; and
    - (ii) The material VOC content of each material, as applied, including water and exempt compounds;
  - (C) Hours of operation;
  - (D) Materials used or processed;
  - (E) Fuel type and usage;
  - (F) Throughput;
  - (G) Operating parameters;
  - (H) Manufacturers specifications;
  - (I) Rating plate; and
  - (J) Safety Data Sheets.
- (2) All documentations and/or records pursuant to paragraph (t)(1) shall be maintained onsite for ~~five~~ three years and made available to the Executive Officer upon request.

## Updated Proposed Rule Language for Subdivision (u) – Test Methods

- Language remains broad to allow for the use of accepted test methods
- Added language to clarify that approved test methods includes those that are specified in South Coast AQMD rules

- (u) All test methods used to verify the percentages, concentrations, vapor pressures, etc., shall be approved test methods as contained in South Coast AQMD's Test Method Manual or any methods approved by the Executive Officer, including those specified in South Coast AQMD rules that have been approved in the State Implementation Plan, CARB, and the U.S. EPA. In the absence of approved test methods, the applicant can submit VOC calculation procedures acceptable to the Executive Officer, including, but not limited to, product formulation data.



# Proposed Rule Language for Subdivision (s) - Exceptions

---

- Equipment, processes, or operations are not exempt from permit requirements if they fall under the provisions in subdivision (s) – Exceptions
- During Working Group Meeting #2, staff presented proposed language for a new provision
  - Paragraph (s)(3) clarified that facilities must submit information to demonstrate risk levels are below Rule 1401 thresholds when available information is not sufficient to determine risk
  - Proposed rule language amended in response to stakeholder Comment #4
- Staff is proposing additional amendments to subdivision (s)

**Revised**

## Proposed Rule Language for Subdivision (s) - Exceptions

Removed the Rule 222  
requirement from the  
opening paragraph

### (s) Exceptions

Notwithstanding equipment identified in (a) through (r) of this rule, written permits are required pursuant to the provisions of paragraphs (s)(1), (s)(2), and (s)(4),~~and filings are required under Rule 222 pursuant to paragraph (s)(3):~~



New

# Proposed Rule Language for Subdivision (s) - Exceptions

Per subparagraphs (s)(1)(A) and (B), equipment subject to NSPS or NESHAP requirements are not exempt from permit requirements

- Engines rated  $\leq 50$  bhp are subject to NSPS and NESHAP, however South Coast AQMD does not intend to require permits for these small engines
- Added language to clarify that small engines remain exempt from permit requirements

- (1) Equipment, process materials or air contaminants subject to:
  - (A) Regulation IX – Standards of Performance for New Stationary Sources (NSPS), except for internal combustion engines with a manufacturer’s rating of 50 brake horsepower or less;~~or~~
  - (B) Regulation X – National Emission Standards for Hazardous Air Pollutants (NESHAP - Part 61, Chapter I, Title 40 of the Code of Federal Regulations), except for internal combustion engines with a manufacturer’s rating of 50 brake horsepower or less; or...



New

# Proposed Rule Language for Subdivision (s) - Exceptions

- Moved floating sentence at end of paragraph (s)(2) to beginning
- Clarified in subparagraph (s)(2)(A) that risk is determined based on uncontrolled emissions

(2) ~~Equipment when~~ When the Executive Officer has determined that the below provisions apply and written notification has been given to the equipment owner or operator, the equipment shall thereafter be subject to Rules 201 and 203 for non-RECLAIM sources, Rule 2006 for RECLAIM sources, and Regulation XXX – Title V Permits for Major Sources:

(A) ~~the~~ The risk from uncontrolled emissions will be greater than identified in subparagraph (d)(1)(A), or paragraphs (d)(2) or (d)(3) in Rule 1401–~~New Source Review of Toxic Air Contaminants; or,~~

(B) ~~the~~ The equipment may not operate in compliance with all applicable District South Coast AQMD Rrules and Rregulations, including but not limited to Rule 402 – Nuisance; or,

...

~~Once the Executive Officer makes such a determination and written notification is given to the equipment owner or operator, the equipment shall thereafter be subject to Rules 201 and 203 for non-RECLAIM sources, Rule 2006 for RECLAIM sources, and Regulation XXX – Title V Permits for major sources.~~



New

# Proposed Rule Language for Subdivision (s) - Exceptions

Added new subparagraph  
(s)(2)(C)

- States that equipment or associated air pollution controls are no longer exempt from permitting if modified or is not operated or maintained per manufacturer specs and results in inconsistencies with any exemption provision or results in preventable emissions

## Proposed new subparagraph (s)(2)(C)

- (C) The equipment or the air pollution control system venting the equipment has been modified in a manner inconsistent with, or is not operated or maintained in accordance with, manufacturer specifications, and:
- (i) Is inconsistent with any exemption under any provisions of this rule; or
  - (ii) Results in otherwise preventable emissions, as determined by the Executive Officer.

## Proposed Rule Language for Subdivision (s) - Exceptions

Staff presented proposed paragraph (s)(3) during Working Group Meeting #2

- Intent is to clarify that South Coast AQMD can request the submittal of additional information when health risk cannot be determined
  - Instances where inadequate information is submitted occurs very infrequently
- Added language stating that this type of request would come only when inadequate information is available

(3) ~~Upon request of the Executive Officer~~ If the Executive Officer determines the information to evaluate health risk is inadequate and requires additional information or review, upon written notification from the Executive Officer, the owner or operator shall submit (a) complete permit application(s) to demonstrate the equipment operates below the risk thresholds in subparagraph (s)(2)(A).



New

## Proposed Rule Language for Subdivision (s) - Exceptions

Will remove original paragraph (s)(3), which required facilities that emit  $\geq 4$  tons/yr of VOC from exempt operations to file a Rule 222 registration

- Per U.S. EPA's recommendation, Rule 219 will be a standalone regulation that does not require Rule 222 submittals as a condition to being exempted from obtaining a permit
- Rule 222 requirements for these operations remain intact
- PAR 222 will contain corresponding updates

- (3) ~~The following equipment, processes or operations that are located at a single facility, which does not hold a written permit for any other equipment, processes or operations, and emit four (4.0) tons or more of VOCs in any Fiscal Year (July 1 to June 30) beginning July 1, 2007 or emitted four (4.0) tons or more of VOCs in the Fiscal Year July 1, 2006—June 30, 2007. The four (4.0) ton per Fiscal Year threshold shall be calculated cumulatively for all categories of equipment, processes or operations listed in subparagraphs (A) through (C) below. One filing shall be required for all of the categories of equipment, processes or operations subject to this provision as listed in subparagraphs (A) through (C) below. Associated VOC emissions shall be reported under the Annual Emissions Reporting program and fees shall be paid pursuant to Rule 301, subdivision (u).~~
- (A) ~~Printing operations individually exempted under paragraph (h)(1) and (h)(7).~~
- (B) ~~Coating or adhesive application or laminating equipment and devices individually exempted under paragraphs (l)(6) and (l)(10).~~
- (C) ~~Hand applications of VOC containing materials individually exempted under paragraph (o)(4).~~

# Potential Deficiencies in Rule 219

---

U.S. EPA identified three areas that may impact Rule 219 SIP-approval

- Exemptions for:
  - Replacement of identical equipment [paragraph (c)(3)]
  - Air pollution control equipment used to keep emissions below thresholds [paragraph (h)(1)]
- Lack of recordkeeping requirements for operations claiming exemptions based on low VOC materials and emitting  $\leq 1$  ton/yr. of VOCs [subparagraphs (h)(1)(E) and (I)(6)(F)]

Staff developed proposed rule language to address concerns





## Potential Deficiencies in Rule 219 – Replacement of Identical Equipment – (c)(3) and (c)(4)

Proposed language will clarify that paragraph (c)(3) only applies to a non-Major Source facility

Proposal is to develop separate provisions [paragraph (c)(4)] applicable to a federal Major Source facility

- (3) Identical replacement in whole or in part of any equipment at a non-Major Source facility where a permit to operate had previously been granted for such equipment under Rule 203, except seals for external or internal floating roof storage tanks.

### New Proposed Provision for Major Sources

- (4) Identical replacement of a part of any equipment at a federal Major Source facility, as defined in Code of Federal Regulations under Title 40 Part 51 Section 165 or Title 40 Part 52 Section 21, where a permit to operate had previously been granted for such equipment under Rule 203, upon Executive Officer approval and based on U.S. EPA guidance in determining routine maintenance, repair or replacement.



# Potential Deficiencies in Rule 219 – Meeting Emissions Thresholds in (h)(1)

Low-VOC emitting printing equipment, including associated air pollution control equipment, are exempt from permit requirements if they operate below VOC emissions thresholds in subparagraphs (h)(1)(A) and (h)(1)(E)

- Emissions should be below the thresholds without depending upon exempt air pollution controls that have no operating conditions placed on them
  - Proposed language clarifies that the thresholds in (h)(1)(A) and (h)(1)(E) are based on uncontrolled emissions

- (1) Graphic arts operations including pPrinting, ~~and related~~ coating and/or laminating equipment, and associated dryers and curing equipment, and ~~as well as~~ associated air pollution control equipment, provided such dryers and curing equipment are also exempt pursuant to paragraph (b)(2), and ~~the~~ air pollution control equipment is not required for source specific rule compliance, and provided that:
  - (A) ~~the~~ The uncontrolled VOC emissions from such equipment (including clean-up) are three pounds per day or less or 66 pounds per calendar month or less; or
  - ...
  - (E) ~~all~~ All inks, coatings and adhesives, fountain solutions, and associated VOC containing solvents (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents contain twenty-five (25) grams or less of VOC per liter of material, and the total quantity of uncontrolled VOC emissions do not exceed one ton per calendar year,...



# Potential Deficiencies in Rule 219 – Operations using Low VOC Materials

Subparagraphs (h)(1)(E), (l)(6)(F), and (l)(11)(F) exempt operations that use low VOC materials and emit ≤1 ton/year of VOCs if they:

- Submit a Rule 222 registration
- A low-VOC verification report within 60 days of operation

Proposal is to remove these registration/report requirements

Recordkeeping would be maintained pursuant to subdivision (t) to demonstrate that emissions are below the threshold

[See also subsequent slides]

## Printing and Reproduction Equipment, (h)(1)

- (E) ~~all~~ All inks, coatings and adhesives, fountain solutions, and associated VOC containing solvents (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents contain twenty-five (25) grams or less of VOC per liter of material, and the total quantity of uncontrolled VOC emissions do not exceed one ton per calendar year, ~~and provided that either:~~
- ~~(i) a filing pursuant to Rule 222 is submitted to the Executive Officer~~
  - ~~(ii) within 60 days after start up for new, relocated, or modified facilities, or by March 1, 2018 for facilities existing as of May 5, 2017, a low-VOC verification report is submitted to the Executive Officer, in a format approved by the Executive Officer, to demonstrate compliance with material and cleanup solvent VOC concentration limits, and the annual VOC emission limit.~~



# Potential Deficiencies in Rule 219 – Operations using Low VOC Materials

Proposed language in  
subparagraph (l)(6)(F) is  
identical to proposed  
language in subparagraph  
(h)(1)(E)

[See previous slide]

## Coating and Adhesive Process/Equipment, (l)(6)

- (F) ~~all~~ All coatings and adhesives, polyester resin and gel coat type materials and associated VOC containing solvents (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents contain twenty five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions do not exceed one ton per calendar year., ~~and provided that either:~~
  - (i) ~~a filing pursuant to Rule 222 is submitted to the Executive Officer~~
  - (ii) ~~within 60 days after start up for new, relocated, or modified facilities, or by March 1, 2018 for facilities existing as of May 5, 2017, a low-VOC verification report is submitted to the Executive Officer, in a format approved by the Executive Officer, to demonstrates compliance with material and cleanup solvent VOC concentration limits, and the annual VOC emission limit.~~



# Potential Deficiencies in Rule 219 – Operations using Low VOC Materials

Proposed language in  
subparagraph (l)(11)(F) is  
identical to proposed  
language in  
subparagraphs (h)(1)(E)  
and (l)(6)(F)

[See previous slides]

## Drying Equipment for Coating and Adhesive Process/Equipment, (l)(11)

- (F) ~~all~~ All coatings and adhesives, polyester resin and gel coat type materials and associated VOC containing solvents (excluding cleanup solvents) contain fifty (50) grams or less of VOC per liter of material and all cleanup solvents contain twenty-five (25) grams or less of VOC per liter of material, and the total quantity of VOC emissions do not exceed one ton per calendar year, ~~and provided that either:~~
  - (i) ~~a filing pursuant to Rule 222 is submitted to the Executive Officer~~
  - (ii) ~~within 60 days after start up for new, relocated, or modified facilities, or by March 1, 2018 for facilities existing as of May 5, 2017, a low-VOC verification report is submitted to the Executive Officer, in a format approved by the Executive Officer, to demonstrate compliance with material and cleanup solvent VOC concentration limits, and the annual VOC emission limit.~~

# Rule 222 references in Rule 219

---

- Several provisions of Rule 219 currently require a Rule 222 submittal as a condition from being exempt from permitting
- To respond to U.S. EPA recommendations, PAR 219 replaces the registration requirement in each relevant exemption with a reference to Rule 222
- Example: Paragraph (b)(4)

Portable diesel fueled heaters, with a rated maximum heat input capacity of 250,000 Btu per hour or less, and that are equipped with burner(s) designed to fire exclusively on diesel fuel only. ~~provided a filing pursuant to Rule 222 is submitted to the Executive Officer~~ Rule 222 may be applicable.

# Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

---

# Background

---

- Rule 222 establishes a registration program as an alternative to permitting where equipment emissions profiles are well known
- Includes requirements for:
  - Information to be submitted to South Coast AQMD
  - Recordkeeping
- Registration program is available to equipment listed in Rule 222 and exempt from obtaining permits under Rule 219
- Registration forms are available on the South Coast AQMD website:  
<http://www.aqmd.gov/home/permits/rule-222-filing-program>
- Fees are required but are lower than permitting fees



# Rule 222 Provisions

---

- Table 1 and other sections include specific Rule 219 references
- Changes to PAR 219 would change all specific Rule 219 references in Rule 222
- Intent of PAR 222 is remove references to specific provisions in Rule 219
  - Example from Rule 222, Table I:

Roller to roller coating systems that create 3-dimensional images exempt from a written permit pursuant to Rule 219 ~~(j)(13)(C)~~.

- Would allow for future Rule 219 amendments without requiring Rule 222 amendments

# Next Steps



Present Initial Preliminary Proposed Rule Language at Working Group Meeting #4

Public Workshop 4<sup>th</sup> quarter 2022

Public Hearing 1<sup>st</sup> quarter of 2023

# Staff Contacts for PAR 219 and PAR 222

---

Yunnie Osias  
Air Quality Specialist  
(909) 396-3219  
[yosias@aqmd.gov](mailto:yosias@aqmd.gov)

Michael Laybourn  
Program Supervisor  
(909) 396-3066  
[mlaybourn@aqmd.gov](mailto:mlaybourn@aqmd.gov)

Heather Farr  
Planning and Rules Manager  
(909) 396-3672  
[hfarr@aqmd.gov](mailto:hfarr@aqmd.gov)

Kalam Cheung  
Planning and Rules Manager  
(909) 396-3281  
[kcheung@aqmd.gov](mailto:kcheung@aqmd.gov)

Michael Krause  
Assistant Deputy Executive Officer  
(909) 396-2706  
[mkrause@aqmd.gov](mailto:mkrause@aqmd.gov)