Proposed Rule 1480.1: Ambient Monitoring and Sampling of Non-Metal Toxic Air Contaminants (PR 1480.1)

Working Group Meeting #1

September 2, 2026

Join Zoom Meeting - from PC or Laptop:
Webinar Meeting Link:
https://aqmd.zoomgov.com/j/1654361836
Zoom Webinar ID: 165 436 1836
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Meeting Agenda

- Introduction
- Rule Development Process
- Overview Toxic Air Contaminants
- Background on Rule 1480
- Proposed Rule 1480.1
- Ambient Air Monitoring of TACs
- PR 1480.1 Next Steps
- Staff Contacts

Introduction

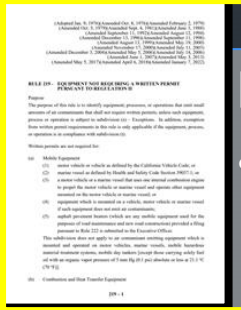
South Coast AQMD

- Local air pollution control agency for Orange County, Los Angeles County, Riverside County, San Bernardino County, Coachella Valley
  - Largest of the 35 local air agencies in CA and in the US
  - 10,743 square miles
  - ~17 million residents (45% of CA population)
- Responsibilities include:
  - Regulate emissions from stationary sources
  - Permit and inspect over to 28,000 facilities
  - Administer over $100 million of incentive funding annually

Key South Coast AQMD Activities

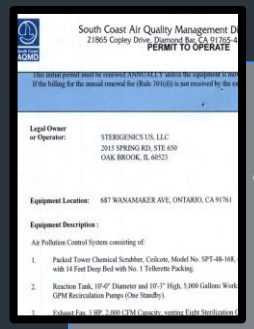
Air Quality Management Plan

- Blueprint to attain air standards



Rules and Regulations

- Reduce emissions from facilities or equipment



Permits to Operate

- Issue permits to ensure compliance with local/state/federal rules and regulations

Compliance Inspections

- Periodic inspections to enforce rules and permits

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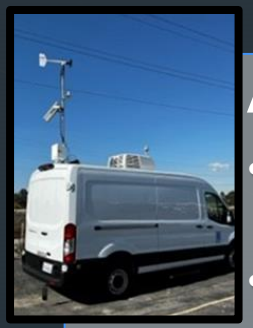
Complaint Investigations

- Respond to air quality concerns from public

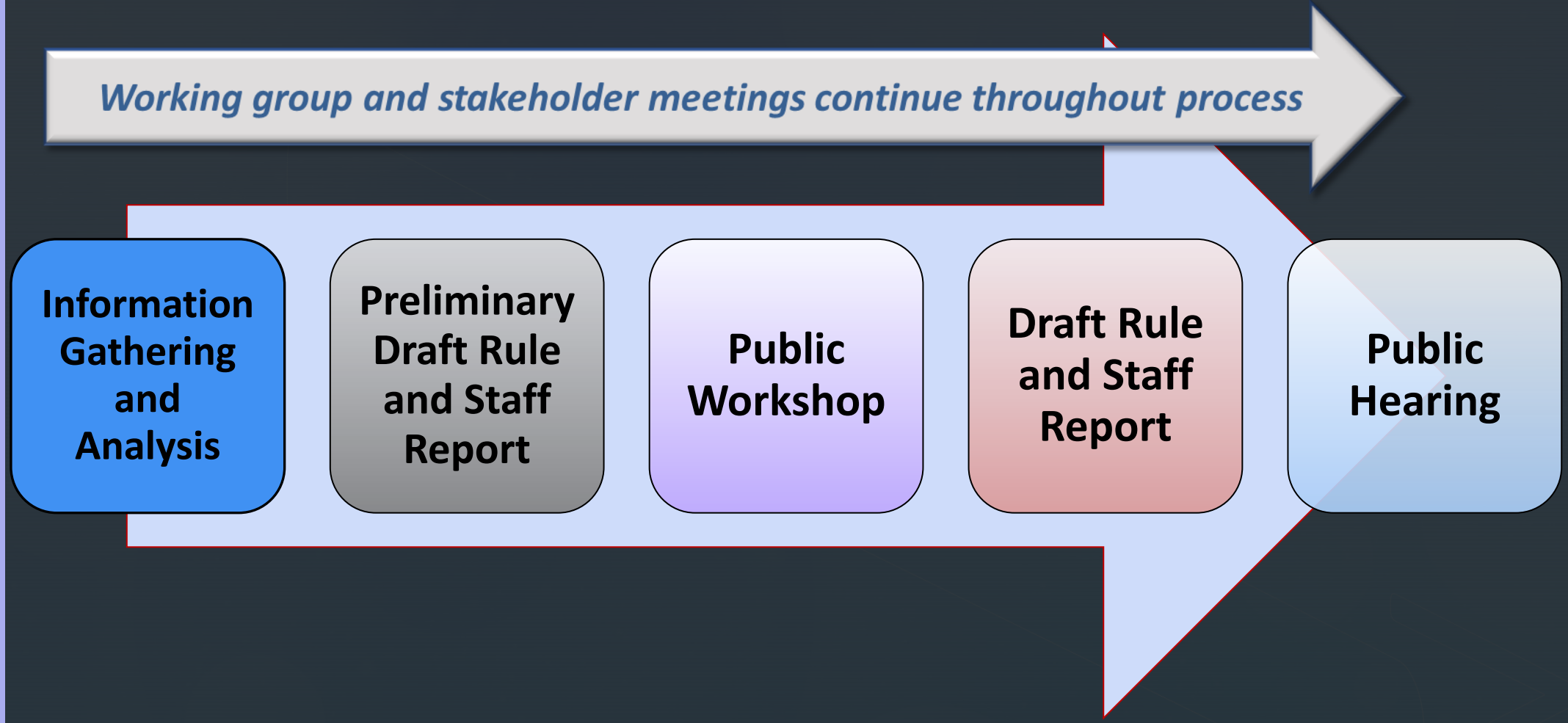


Ambient Air Monitoring

- Quantify air quality including special studies (e.g. MATES)
- Monitor toxics and air emissions at facility fencelines

Rule Development Process

Overview of Rule Development Process

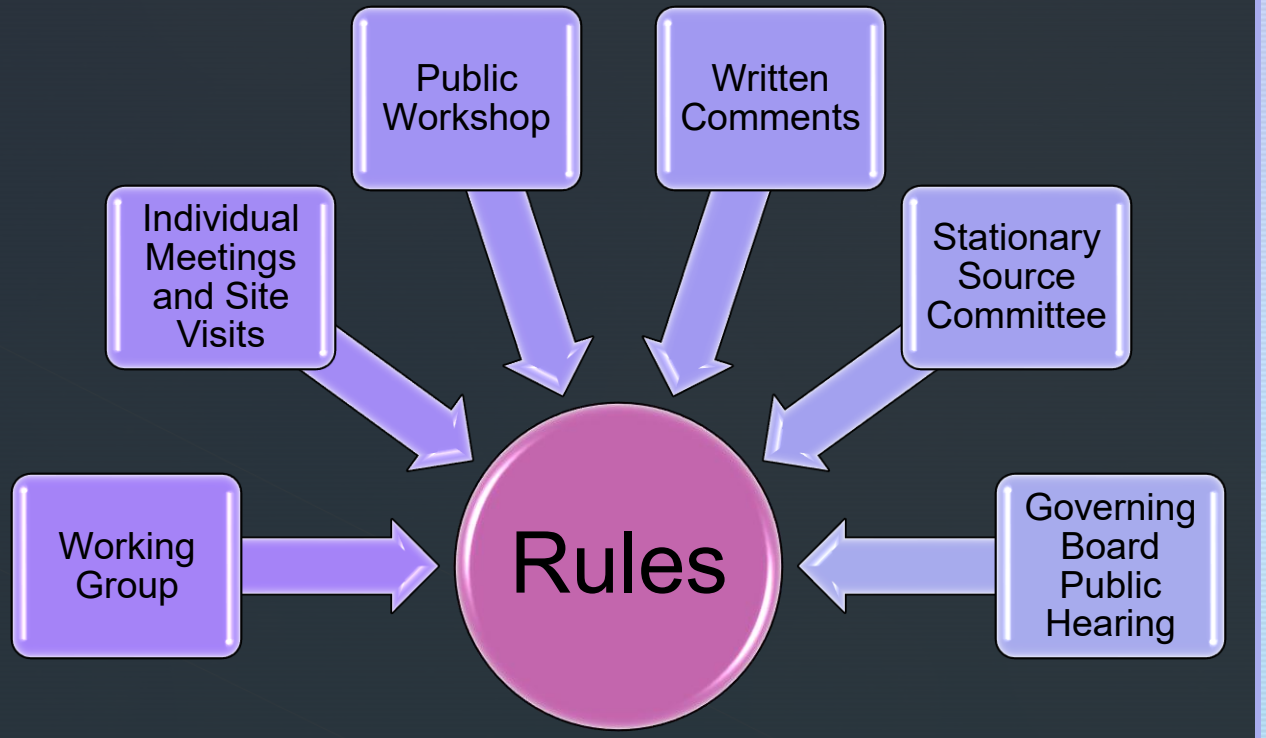


Information Gathering

- Staff gathers information from multiple sources:
  - Internet searches
  - Manufacturer meetings/surveys
  - Internal expertise and data
  - Facility permits, inspection reports, compliance history, previous rule files, other rule amendments
  - Product datasheets
  - Site visits
- Information includes types of products being used, volatile organic compound content, product cost, etc.
- Information used to inform staff recommendations

Public Input

- Stakeholders can provide input during working group meetings and throughout the rulemaking process
- Early input is strongly encouraged to help develop proposed rule amendments and to address issues
- Working Group Meetings, individual meetings, and site visits allow stakeholders to dialogue directly with staff to discuss individual issues



Need for Proposed Rule 1480.1

Rule 1480 – Ambient Monitoring and Sampling of Metal Toxic Air Contaminants, only applies to facilities with **metal** Toxic Air Contaminants(TACs)

- No existing rule that would cause a facility with high non-metal TAC emissions to conduct ambient air monitoring

Regulatory gap found when high levels of EtO emissions were detected and identified

- Technology-based Rule 1405 was amended to address regulatory gap and reduce risk from EtO
- Need rule to address other non-metal TAC emissions

PR 1480.1 will focus on air monitoring and sampling of non-metal TACs

Overview Toxic Air Contaminants

What are Toxic Air Contaminants (TACs)?

- According to the California Health and Safety Code a TAC is:
  "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health."

- The Office of Environmental Health Hazard Assessment (OEHHA) has identified several substances as TACs including:
  - Acetaldehyde
  - Benzene
  - Carbon Tetrachloride
  - Ethylene Oxide
  - Nickel
  - among others

Some Sources of TACs

Cement Manufacturing

Sterilization

Fossil Fuels

Textile Manufacturing

Chromate Coatings

How Does South Coast AQMD Regulate TACs

Over 25 rules to reduce toxic air contaminants

Requires Health Risk Assessments, Risk Reduction Plans, and Public Notification

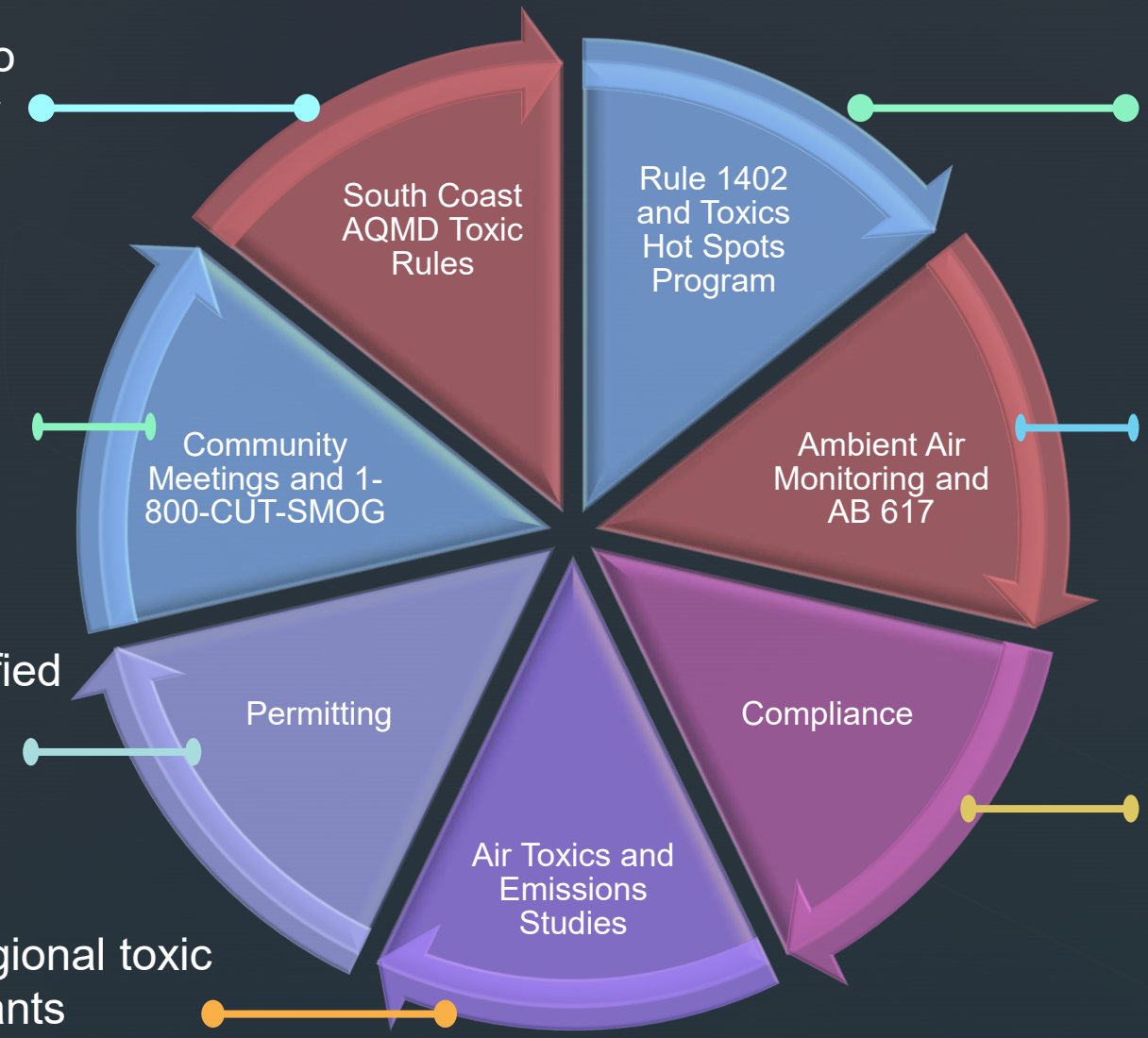
Community meetings and direct public communication

Ambient Monitoring near facilities and community monitoring

New and modified sources are evaluated for toxics

Ensures Facilities are complying with Toxic Rules and investigates complains

Measures regional toxic air contaminants throughout air basin



Air Toxics "Hot Spots" information & Assessment Act (AB 2588)

- Enacted in 1987
- Public Right-to-know Program

AB 2588

Objective:

- Core facilities (currently, over 450 large facilities) submit an air toxics emissions report once every four years
- Non-core facilities can be designated for evaluation when emissions, complaints, or localized concerns indicate a potential health risk
  - Identify facilities having localized impacts
  - Evaluate potential health risks through Health Risks Assessments (HRAs)
  - Notify affected individuals of potential health risks
  - Reduce health risks below certain thresholds

Rule 1402

- Implements AB 2588
- More stringent requirements for reducing health risks

Rule 1402 Health Risk Thresholds

Cancer Risk Thresholds	• Significant Risk • Risk Reduction • Public Notification	Cancer Risk >100 in one million Cancer Risk >25 in one million Cancer Risk >10 in one million
Non-Cancer Risk Thresholds	• Significant Risk • Risk Reduction • Public Notification	Non-Cancer HI >5 Non-Cancer HI >3 Non-Cancer HI >1
Cancer Burden Threshold	• Risk Reduction	Cancer Burden >0.5

Potentially High Risk Level Facilities under Rule 1402

- Facilities that are expected to or have exceeded the Significant Risk Level set in Rule 1402
  - Cancer Risk > 100 in-one-million or
  - Acute or Chronic Hazard index > 5
- Determination based on emissions data, source test, or ambient monitoring data

Addresses High Health Risks Early

- Submittal and implementation of Early Action Reduction Plan

Expedited Implementation

- Submit
  - Air Toxics Inventory Report
  - Health Risk Assessment
  - Risk Reduction Plan (RRP)*

Better Overall Public Health Sooner

- Completes overall risk reduction sooner than traditional AB 2588 program

* RRP's for Potentially High Risk Level facilities must be implemented within two years

Risk Reduction Plans under Rule 1402

Early Action Reduction Plan

- Identifies interim risk reduction measures that can be implemented quickly to address high health risk
- Required for Potentially High Risk Level facilities

Risk Reduction Plan (RRP)

- Implementation of permanent, verifiable and enforceable risk reduction measures
- Required for Potentially High Risk Level facilities
- Must be implemented within two years after approval of RRP for Potentially High Risk Level facilities

Background on Rule 1480

Rule 1480 – Ambient Monitoring and Sampling of Metal Toxic Air Contaminants

- Rule 1480 complements Rule 1402
  - Used as a tool to require a facility with metal emissions to conduct monitoring and sampling of metal TACs
- Rule 1480 was adopted on December 6, 2019
- Designated facilities are required to submit a Monitoring and Sampling Plan
- Designation based on health risk above the Significant Risk Level on residential and sensitive receptors using air dispersion modeling and risk assessment procedures

Rule 1480 – Approach

South Coast AQMD conducts ambient monitoring and sampling

If elevated levels are found, South Coast AQMD investigates to identify facility or source

If designation criteria is met:

Facility must conduct monitoring/ sampling

OR

Pay fee and South Coast AQMD conducts monitoring

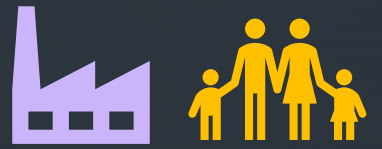
If facility cannot be designated under Rule 1480, South Coast AQMD may continue monitoring and sampling

Elements of Rule 1480 Facility Designation Process

Early notification to Facility of possible Rule 1480 designation

Must be a Rule 1402 potentially High Risk level facility

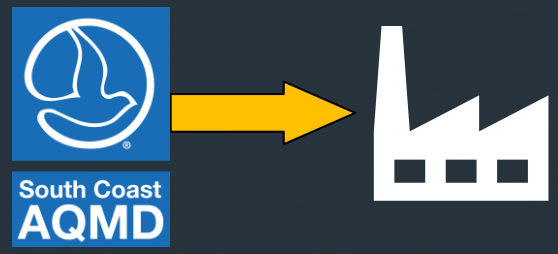
Accounts for emission reductions from enforceable measures and adopted rules



Uses facility-specific emissions to estimate health risk to nearest sensitive receptor

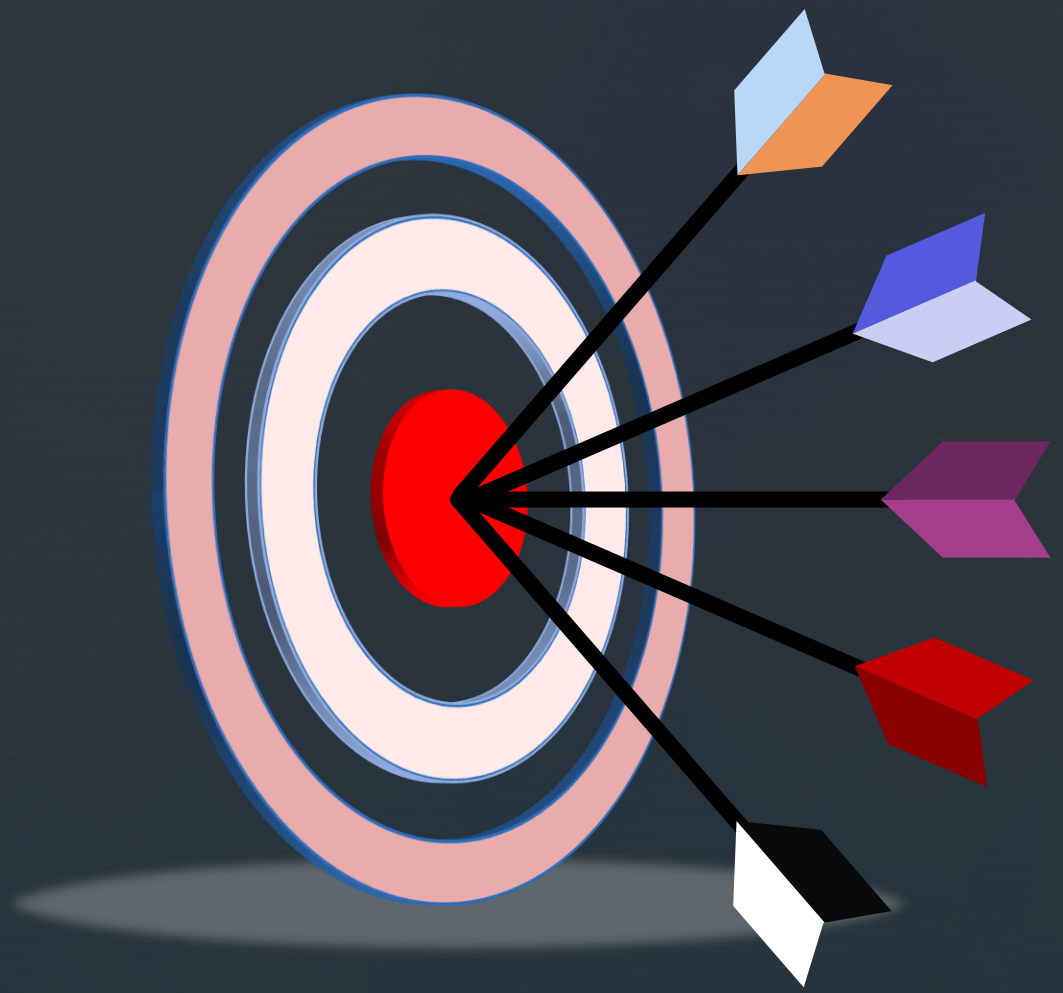
Rule 1480 – Impact

- Universe affected by Rule 1480 is a subset of Rule 1402
  - Facilities subject to the Monitoring and Sampling requirements of Rule 1480 are also required to reduce TAC emissions under Rule 1402
  - Facility stops being subject to Rule 1480 once it has fully implemented the Risk Reduction Plan (RRP) required by Rule 1402 or;
  - If the approved Health Risk Assessment determined that a RRP is not required
- Rule 1480 transfers the responsibility of conducting air monitoring and sampling from the South Coast AQMD to the facility



Proposed Rule 1480.1

Rule 1480.1 Objective



- Establish framework for ambient air monitoring and sampling for facilities with significant risk levels with non-metal TACs emissions
- Staff needs a mechanism to require a facility with significant risk level to monitor and sample non-metal TACs
- Efficient approach to manage risks across various TACs comprehensively rather than on a rule-by-rule basis

Revised

Overview of Regulatory Considerations of PR 1480.1

Categories	Rule 1480	Proposed Rule 1480.1*
Rule Title	Ambient Monitoring and Sampling of **Metal** Toxic Air Contaminants	Ambient Monitoring and Sampling of **Non-Metal** Toxic Air Contaminants**
Purpose	Establishes framework for ambient air monitoring for high risk facilities with metal TACs	Expands monitoring to non-metal TACs not covered under Rule 1480 or other rules
Facility Designation	Facility Designated as Rule 1402 Potentially High Risk Level	Facility Designated as Rule 1402 Potentially High Risk Level
Length of Monitoring and Sampling	Until Rule 1402 Risk Reduction Plan is implemented	Until Rule 1402 Risk Reduction Plan is implemented

*Will not immediately impact any facilities

** OEHHA/ARB table of non-metal TACs under consideration for PR 1480.1 - Consolidated Table

Potentially Impacted Facilities

- Follow similar designation process as Rule 1480
  - Designated as Potentially High Risk Level Facility under Rule 1402
  - Cancer risk equal or greater than one hundred in one million
  - Hazard Index equal or greater than five for any target organ system
  - Acute Hazard Index equal or greater than five
  - Initial notification to the facility that additional TAC evaluation and monitoring may be required
- Will focus on TACs not covered under Rule 1480 (metal TACs) or other rules
- Any permitted facility with emissions resulting in a significant risk level of emissions could be impacted

Supplemental Applicability Triggers

- Rule 1480 applies to facilities designated as Potentially High Risk Level Facilities under Rule 1402
  - Currently, one facility designated as Potentially High Risk Level
- Considering potential supplemental applicability triggers for PR 1480.1
  - Some facilities may have recurring or localized non-metal TAC emissions but may not meet Rule 1402 designation thresholds
  - Could help identify facilities with recurring non-metal TAC emissions that may not be captured under Rule 1402

Supplemental Applicability Triggers Under Consideration

1. Compliance History

- Repeated validated non-metal TAC-related Notices of Violation (NOVs) within a specified timeframe (e.g., rolling 36-month period)
  - Emission control equipment
  - Exceedance of permit conditions (e.g., operating time, volume limits, emission limits)

2. Operational Performance

- Repeated breakdowns events involving equipment that are related to non-metal TACs

Supplemental Applicability Triggers Under Consideration (cont.)

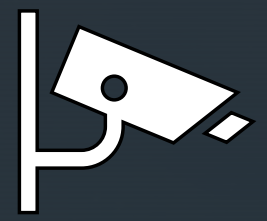
3. Public Nuisance

- Repeated Rule 402 NOVs related to non-metal TAC emissions that result in nuisance or public exposure concerns

4. Executive Officer (EO) Evaluation

- EO to consider additional evaluation, similar to the process in Rule 1466, based on:
  - Site compliance history
  - Concentrations of applicable TACs
  - Health Risk information Other technical information demonstrating the potential for ongoing exposure

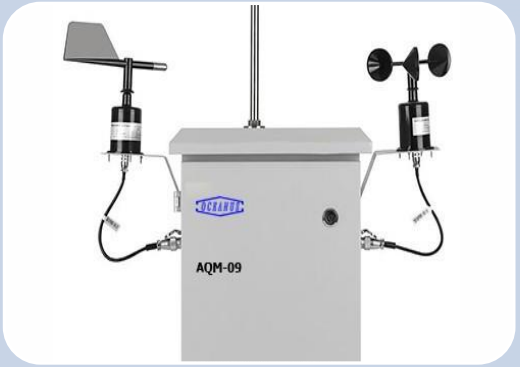
Ambient Air Monitoring of TACs

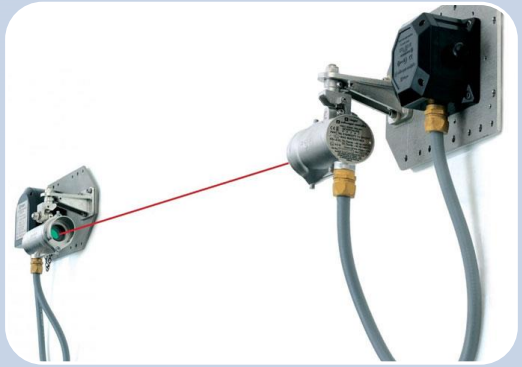


Use of Ambient Air Monitoring

- Measures concentration of specific toxic air contaminant(s) in ambient air
- Can provide information on fugitive and point sources of emissions
- Can help identify high emission areas
- Can support in determining effectiveness of existing pollution controls

Common Ambient Air Monitoring Methods for TACs





Stationary Monitoring

Optical Remote Sensing

Mobile Monitoring

Types of TACs

- TACs can generally exist in either particulate or gaseous form

Particulate Matter (PM) TACs

- Tiny solid fragments, liquid droplets, or a combination suspended in air
- Examples include:
  - Diesel PM
  - Asbestos Fibers
  - Crystalline Silica Dust
  - Air Toxic Metals

Gaseous TACs

- Chemicals released into the air that remain in a gaseous form
- Examples include:
  - Benzene
  - Ethylene Oxide
  - Formaldehyde

- Different types of TACs may require different ambient air monitoring approaches

Monitoring Approaches for TACs

- Monitoring methods are selected based on TAC characteristics and monitoring objective

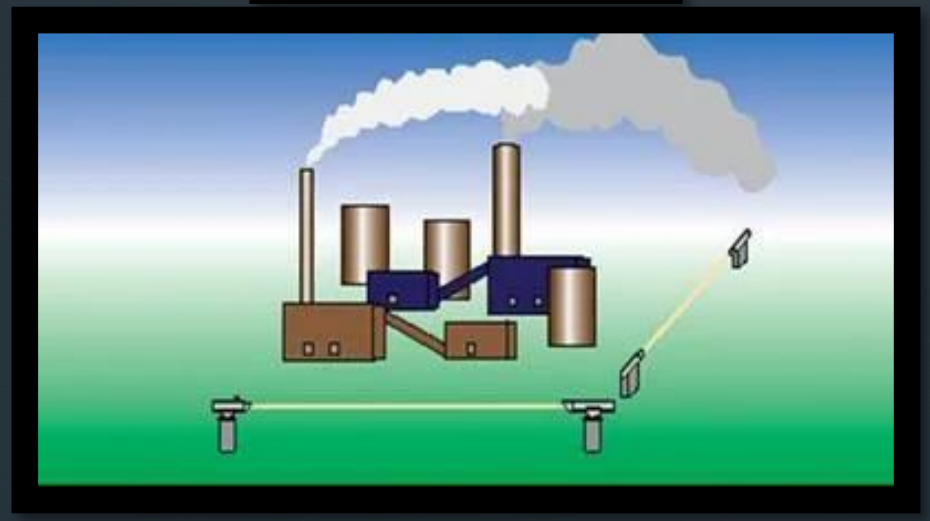
Monitoring Method	Primary Use	Typical Applications	Example Technique(s)
1. Stationary Monitoring	• Continuous measurements • Time-integrated sample collections & subsequent analysis	• Comparing typical levels and established health-thresholds • Supporting compliance and enforcement actions • Evaluating long-term trends	• Continuous analyzers • Time-integrated sampling and subsequent analysis
2. Optical Remote Sensing	• Remote detection across a monitoring path	• Detecting and tracking certain gaseous TACs over a path	• Absorption spectroscopy • Open-path remote sensing
3. Mobile Monitoring	• Real-time data collection across different locations	• Conducting surveys, identifying areas w/ persistent elevated levels • Help identify sources of emission • Support emission investigations	• Mobile laboratory instruments

Stationary Monitoring

- Fixed-location monitors provide continuous or periodic measurements
- Well suited for evaluation of long-term trends and nearby community impacts
- Can monitor particulate or gaseous TACs depending on instrumentation
- Trailers can be equipped with real-time or time-integrated monitors

Optical Remote Sensing

- Measures certain gaseous TACs across an open path
- Can rapidly detect and track fugitive emissions
- Can monitor across a larger path than a single-point monitor
- Provides near real-time measurements
- Susceptible to temporary obstructions



Mobile Ambient Air Monitoring

- Can support screening for certain TACs, depending on available instrumentation and pollutant characteristics
- Enable real-time data collection across different locations
  - Identify areas with persistent elevated levels of air pollution
  - Cover larger areas
- Offer flexibility and versatility in monitoring air
  - Monitoring where stationary monitoring stations may not be present
- Typically used for screening and investigations

Existing Rules with TAC Monitoring Requirements

Particulate TAC Monitoring

- Common Monitoring Techniques include:
  - High-Volume Total Suspended Particulate Samplers
  - Filter-based sampling (including high-volume total suspended samplers)
  - Subsequent chemical analysis, such as:
    - Inductively Coupled Plasma/Mass Spectrometry
    - Laboratory metal analysis

Examples of rules with particulate TAC monitoring requirements

- **Rule 1420** – Emissions Standard for Lead
- **Rule 1420.1** – Emission Standards for Lead and other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities
- **Rule 1480** – Ambient Monitoring and Sampling of Metal Toxic Air Contaminants

Existing Rules with TAC Monitoring Requirements (cont.)

Gaseous TAC Monitoring

- Common Monitoring Techniques include:
  - Time-integrated sample collection (e.g., canisters) and subsequent chemical analysis (e.g., TO15)
  - Open-Path Fourier Transform Infrared spectroscopy (OP FTIR)
  - Open-Path UV Differential Optical Absorption Spectroscopy (UV-DOAS)

Examples of rules with gaseous TAC monitoring requirements

- **Rule 1405** – Control of Ethylene Oxide Emissions from Sterilization and Related Operations
- **Rule 1180** – Refinery Fenceline and Community Air Monitoring
- **Rule 1180.1** - Fenceline and community air monitoring for other refineries

Next Steps

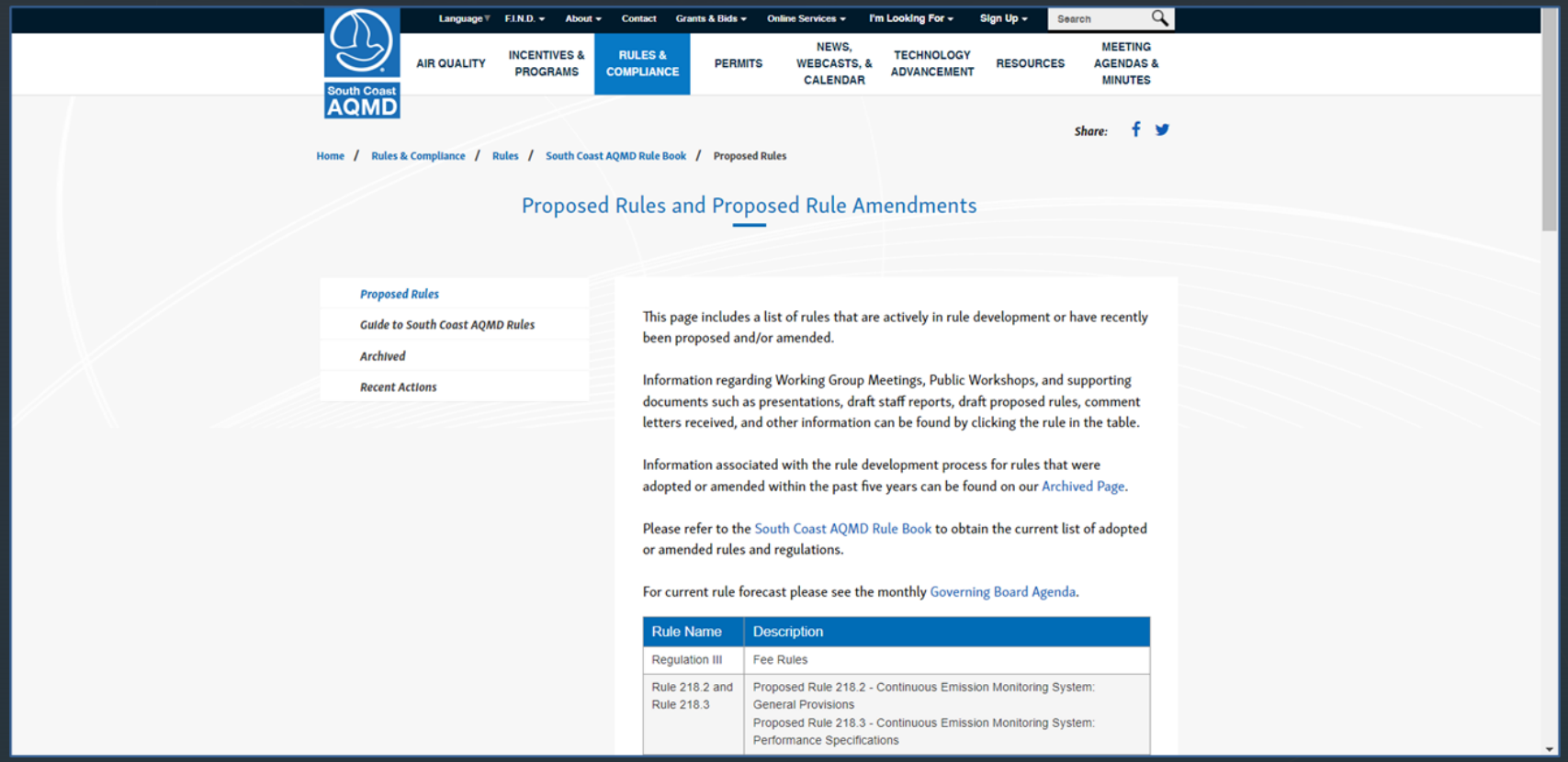
Next Steps

Continue to hold Working Group Meetings and individual stakeholder meetings

Anticipated Public Hearing in first half of 2027

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**



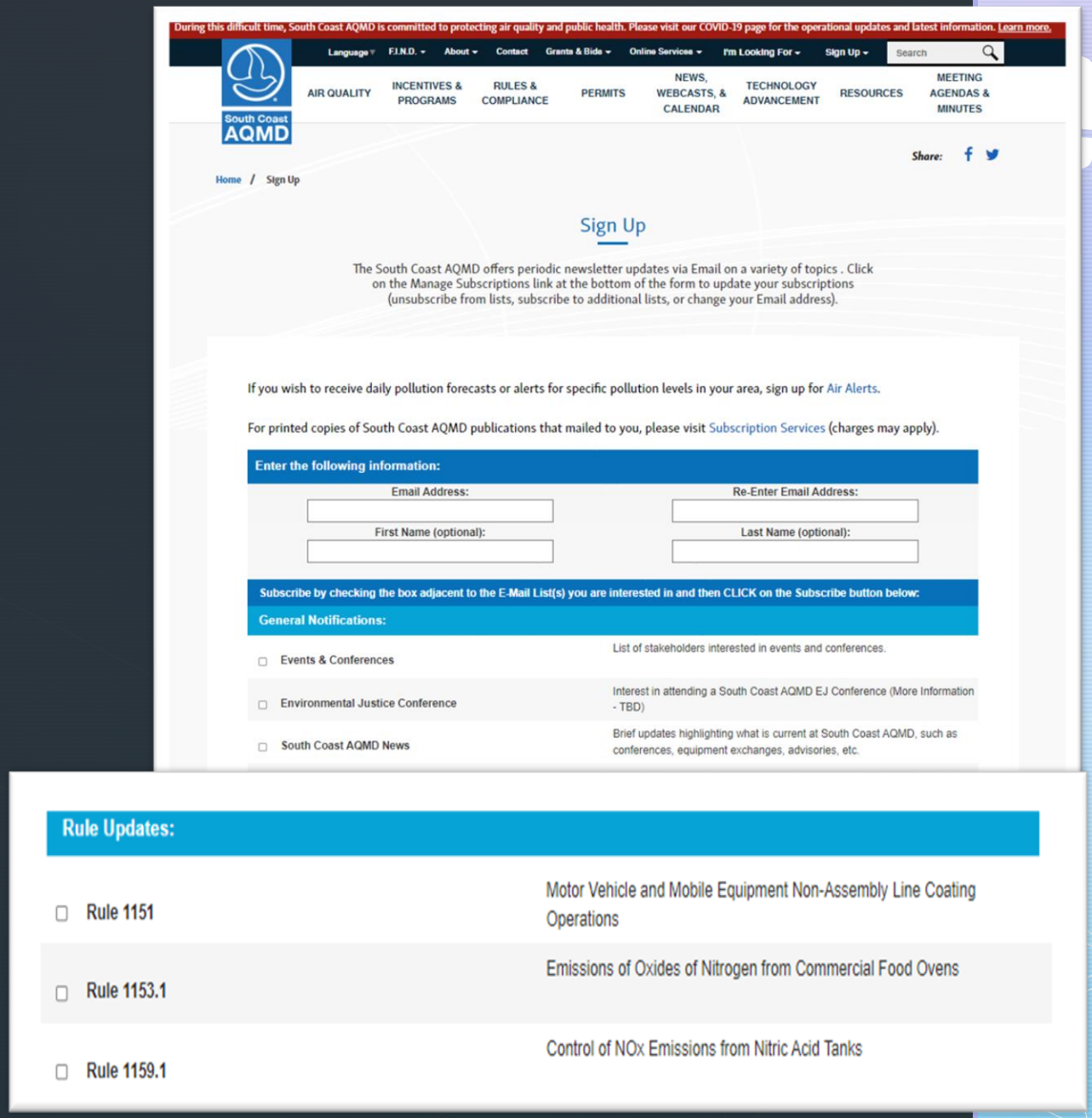
Receiving PR 1480.1 Updates

- 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 Rule 1480.1 and click on the subscribe button at bottom of page

  Future meeting notices, links to documents, and any updates will be sent via email



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