Proposed Rule 1480 – Air Toxic Metals Monitoring

WORKING GROUP MEETING #4

February 5, 2019
Meeting Agenda

• Summary of Working Group Meeting #3
• Rule 1402 Notification Process
  – Determination of Potentially High Risk Level Facilities
• Recap of Proposed Rule (PR) 1480 concepts
• Framework for PR 1480
  – Purpose
  – Applicability
  – Air toxics monitoring plan
Summary of Working Group Meeting #3

• Provided overview of investigative tools (e.g., glass plates) used by SCAQMD
• General overview of rulemaking process
• Staff provided initial concepts for PR 1480
• Stakeholders requested:
  – An overview of Rule 1402 notification process for Potentially High Risk Level Facilities
  – Details of PR 1480 concepts (e.g., on-ramps, off-ramps and thresholds)
Rule 1402 – Control of Toxic Air Contaminants from Existing Sources
Rule 1402 Background

- Adopted in 1994 to implement the AB 2588 Toxics Hot Spots Program
- An “umbrella” rule for air toxics
  - The purpose of the rule is to reduce the health risk associated with emissions of toxic air contaminants from existing sources
  - Establishes facility-wide cancer and non-cancer health risk thresholds for existing sources
  - Requires evaluation of facilities every four years
Rule 1402 – Provisions for Potentially High Risk Level Facilities

• R1402 includes provisions for Potentially High Risk Level Facilities
• A facility designated as a Potentially High Risk Level Facility has additional requirements and an expedited schedule to reduce health risks
• Potentially High Risk Facilities have an estimated:
  – Cancer risk that exceeds 100 in-one-million, or
  – Total acute or chronic Hazard Index of five (5.0) for any target organ system at any receptor location
Rule 1402 – Process for Determination Potentially High Risk Level Facilities

• Executive Officer notifies the owner or operator that the facility may be designated as a Potentially High Risk Level Facility and meets with operator to obtain any additional information

• Executive Officer will provide the following information to substantiate designation:
  – Findings from the evaluation of data that includes, but is not limited to: ambient air quality data, source test data, compliance data, and emissions data;
  – Findings from facility site visits; and
  – Findings from the investigation of surrounding sources
Rule 1402 – Requirements for Potentially High Risk Level Facilities

- Implement an Early Action Reduction Plan that immediately reduces facility-wide health risk
- Submit detailed Air Toxic Inventory Report
- Submit a Health Risk Assessment
- Implement a Risk Reduction Plan to reduce risk below 25 in a million within two (2) years of approval of RRP
Rule 1402 – Process for Determination Potentially High Risk Level Facilities

Notification to Facility

• Executive Officer notifies the owner or operator that the facility may be designated as a Potentially High Risk Level Facility

Meeting with Facility

• Executive Officer will meet with the owner or operator to obtain any additional information

Determination by Executive Officer

• Executive Officer will notify the owner or operator of the designation as a Potentially High Risk Level Facility in writing and provide data used to substantiate the designation
Recap of PR 1480 Concepts
General Approach for PR 1480

• At Working Group #3, staff presented the general approach for PR 1480
• Staff refined the general approach
• Staff will provide additional clarification on SCAQMD and facility responsibilities
General Approach for PR 1480 (Continued)

SCAQMD RESPONSIBILITIES

If Emissions Attributed to Facility, SCAQMD Notifies Facility

- Notification that facility may be required to monitor for air toxic metals
- Provide findings why SCAQMD is making notification

Opportunity for Facility to Respond to SCAQMD

- May provide Information to demonstrate it is not a source
- Provide plan details to reduce emissions
- SCAQMD evaluates response

Facility Responsibilities

Data Collection

- Facility operations and site visits
- Community concerns
- Ambient monitoring results
- Verify presence of air toxic metals
- Identify source of emissions
  - Screening tools
  - Source tests
- Estimate health risks

Designation of a Potentially Significant Source

- Facility responsible for ambient air monitoring (PR 1480) and
- Subject to Rule 1402 to quantify risk and risk reduction, if needed
General Approach for PR 1480 – SCAQMD Data Collection

• Ambient air monitoring initiated by SCAQMD
  – Based on staff observations, community concerns, community monitoring program, etc.
  – Can include screening tools (e.g., deploying glass plate samples, bulk sampling, source tests)
  – Provides information about emission levels at monitored sites

• Verify the presence of toxic metals surrounding monitored site(s)

• If elevated emission levels are detected, SCAQMD would:
  – Identify potential source(s) of toxic metal emissions
  – Estimate the health risk impacts
General Approach for PR 1480 – SCAQMD Notification

• If data collected by SCAQMD demonstrates facility is a Potentially Significant Source, SCAQMD would:
  – Notify the facility that it is a Potentially Significant Source and could be subject to air monitoring requirements
  – Provide evidence collected by the SCAQMD

• A Potentially Significant Source would include facilities with a cancer risk that exceeds 100 in-one-million

• Examples of evidence to determine a Potentially Significant Source could include, air monitoring, source test and compliance data
General Approach for PR 1480 – Facility Response to Notification

• A facility would have an opportunity to respond to the SCAQMD notification
• Facility required to respond within 14 days from the date of SCAQMD notification
• Examples of facility responses:
  – Substantiate why the facility is not a source
  – Request to meet with SCAQMD staff to present additional evidence
General Approach for PR 1480 – Potentially Significant Source

• Executive Officer could designate a facility as a Potentially Significant Source based on evidence such as:
  – Data collected by SCAQMD
  – Information provided by the facility

• Facilities designated as a Potentially Significant Source would be required to:
  – Submit a PR 1480 ambient air monitoring plan
  – Comply with the requirements for a Potentially High Risk Level facility pursuant to Rule 1402 (e.g. Early Action Reduction Plan)
PR 1480 Process

Data Collection by SCAQMD

PR 1480 Notification Made?

NO

OUT

YES

R 1402 Designation Potentially High Risk Level Facility

Submit ATIR and HRA

Submit & Implement EARP & RRP

PR 1480 Designation Potentially Significant Source

Submit & Implement Ambient Air Toxic Metals Monitoring Plan

REDUCE HEALTH RISK

MONITOR EMISSIONS

Submit & Implement Ambient Air Toxic Metals Monitoring Plan
PR 1480 Framework
PR 1480 Framework

• Purpose
• Applicability
• Potentially Significant Source (On-Ramp for Monitoring)
• Monitoring Plan
Purpose

• To require ambient air monitoring for facilities that are the source of toxic metal emissions
• Examples of toxic metal emissions:

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<tbody>
<tr>
<td>Arsenic (As)</td>
<td>Cadmium (Cd)</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>Hexavalent Chromium (CrVI)</td>
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<tr>
<td>Nickel (Ni)</td>
<td>Manganese (Mn)</td>
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Applicability

Applies to any facility determined to be a Potentially Significant Source of toxic metal emissions

Examples

- Metal Finishing
- Metal Heat Treating
- Metal Forging
- Chromate Coatings
- Metal Shredding
- Metal Melting
- Metal Buffing and Grinding
Notification of Potential Air Monitoring or “On-Ramp”

- Executive Officer notifies the facility it may be a Potentially Significant Source
- Notification based on information from data collection – emissions data, results of ambient monitoring, etc.
- Facility can provide information within 14 days from date of notification to substantiate it is not a source
- Executive Officer notifies facility if designated a Potentially Significant Source of toxic metal emissions
Monitoring Plan

• A facility designated as a Potentially Significant Source would be required to submit a monitoring plan
• Objective of the monitoring plan is to identify the maximum ground level concentration
  – Includes information about the facility and location of sources
  – Air dispersion modeling is needed to estimate the point of maximum ground level concentration
• A Monitoring Plan may not be required if the maximum ground level concentration is already known
Monitoring Plan (Continued)

The monitoring plan would include detailed information such as:

- Locations for sampling sites
- Source test results for toxic metal point sources
- Facility map identifying locations:
  - Toxic metal emission sources
  - Air pollution controls and stack information
  - Building enclosures and openings
  - Storage areas
  - Vehicle access areas
  - Facility boundaries (e.g., property line)
Monitoring Plan Approval

- The Executive Officer would notify the facility in writing of the plans approval status
  - If disapproved, the facility would revise the plan to address deficiencies identified by the Executive Officer within 30 days
- Plan approval would be based on adequate coverage of emissions
Monitoring Requirements

• Begin ambient monitoring within 30 days from approval of the monitoring plan
• Minimum of two locations (1 downwind and 1 upwind)
• Frequency of monitoring
  – 1 in 3 day monitoring frequency
  – 24 hour sampling period
• Considerations when siting monitors
  – Logistics to physically locate monitor
  – Accessibility and safety
  – Surrounding receptors
Other Monitoring Requirements

- Sample collection and analysis based on monitoring plan
- Weather station to collect wind speed and direction data
- Quality control and quality assurance procedures
- Specify monitoring and wind data reporting and recordkeeping
- Notify SCAQMD of equipment malfunctions
Monitoring Options

• Facility may elect to have the Executive Officer conduct air monitoring
• Facility would cover the cost of SCAQMD air monitoring
  – Capital cost (e.g., equipment installation and site preparation)
  – Operating and maintenance costs (e.g., labor costs)
• Facility would provide the Executive Officer necessary access (e.g., monitors, operations)
Next Steps

• 5th Working Group Meeting: March 2019
• Governing Board Meeting: 3rd quarter of 2019
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