Proposed Amended Rule (PAR) 1426 – Emissions from Metal Finishing Operations

South Coast AQMD
November 4, 2020

Zoom meeting link:
https://scaqmd.zoom.us/j/94652310451
Join via teleconference:
Dial-in Number: (669) 900-6833
Meeting ID: 946 5231 0451
Passcode: 654246
Agenda

- Summary of Working Group #3
- Responses to Comments
- Rule Concepts: Building Enclosures
- Rule Concepts: Recordkeeping and Reporting
- Rule Concepts: Exemptions
- Facility Survey – Additional Results
- Next Steps
Summary of Working Group #3

- Rule concepts: Housekeeping
  - Approved cleaning methods
  - Routine cleaning
  - Cleaning spills
- Rule concepts: Best management practices
  - Tank solution containment
  - Tank labeling practices
  - Transport and storage
  - Prohibitions
- Initial responses from facility surveys
Response to Comments
Prohibition of Heating of Non-Chromium Tanks above 140°F Should Not be Based on Emissions Testing for Rule 1469

Staff Response:

- PAR 1426 will not include a prohibition for heated tanks
- PAR 1426 will focus on fugitive emissions
- Emissions from heated tanks is considered a point source
  - Chromium point source emissions at non-Rule 1469 facilities will be addressed under Proposed Rule 1426.1
  - Other metal toxic air contaminants will be addressed under Proposed Rule 1426.X
Concern for Potential Conflicts with Proposed Revisions to CARB’s Chrome Plating ATCM and PAR 1426 Rule Development

Staff Response:

- South Coast AQMD rules that implement state Air Toxics Control Measures (ATCM) must be equal or more stringent than the corresponding ATCM.
- Most of the overlap with CARB’s Chrome Plating ATCM will be with Rule 1469 that regulates chromium emissions from plating and anodizing operations.
- CARB currently does not have an ATCM that is similar to PAR 1426.
- South Coast AQMD staff is following the rulemaking for CARB’s Chrome Plating ATCM to identify possible differences between the revisions to the ATCM and PAR 1426 and Rule 1469.
Overview of Proposed Amended Rule 1426

Proposed Amended Rule 1426

- Housekeeping
- Best Management Practices
- Building Enclosures
- Recordkeeping and Reporting
- Exemptions

Presented rule concepts at last Working Group Meeting

Presenting rule concepts at today’s Working Group Meeting
Rule Concepts: Building Enclosures
Currently Rule 1426 has no requirements for building enclosures.

Building enclosure is a permanent building, structure, or portion of building enclosed with a floor, walls, and a roof.

Building enclosure requirements can minimize the release of fugitive emissions by:
- Reducing cross drafts that create fugitive emissions and affect the collection efficiency of air pollution control devices.
- Eliminating openings for fugitive emissions to escape.

Due to similarities between Rule 1469 and PAR 1426 facilities, proposed building enclosure requirements are generally based on building enclosure requirements under Rule 1469.
Comparison of Building Enclosure Requirements of PAR 1426 and Rule 1469

- Rule 1469 addresses both fugitive and point source emissions through building enclosure requirements.
- PAR 1426 would not have building enclosure requirements to minimize point source emissions such as a specified percent allowable openings in a building enclosure or prohibiting roof openings above the tank.
- PAR 1426 would incorporate the requirements from Rule 1469 to minimize fugitive emissions from tank solutions outside tanks.
PAR 1426 Initial Recommendations
– Approach

- PAR 1426 will focus on three requirements for building enclosures
  - Operation inside building enclosure
  - Prohibit concurrent openings at opposite ends of building
  - Prohibit openings facing sensitive receptors
- Following slides will discuss these three requirements for PAR 1426 in more detail

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Rule 1469 Anodizing and Plating (Hexavalent Chromium)</th>
<th>Rule 1426 Metal Finishing Operations (Multiple Metals)</th>
<th>Controlling Fugitive or Point Sources?</th>
<th>Will be included in PAR 1426?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Require operating in a building enclosure</td>
<td>Yes</td>
<td>No</td>
<td>Fugitive</td>
<td>Yes</td>
</tr>
<tr>
<td>Prohibit concurrently openings at opposite ends of building</td>
<td>Yes</td>
<td>No</td>
<td>Fugitive</td>
<td>Yes</td>
</tr>
<tr>
<td>Prohibit openings facing sensitive receptors</td>
<td>Yes</td>
<td>No</td>
<td>Fugitive</td>
<td>Yes</td>
</tr>
<tr>
<td>In lieu of APCD, building enclosures with 3.5% opening requirements</td>
<td>Yes</td>
<td>No</td>
<td>Point</td>
<td>No</td>
</tr>
<tr>
<td>Prohibit roof openings within 15 ft of tank</td>
<td>Yes</td>
<td>No</td>
<td>Point</td>
<td>No</td>
</tr>
</tbody>
</table>
PAR 1426 Initial Recommendations

– Building Enclosures

- Require process tanks to be operated within a building enclosure within six months of rule amendment
- Building enclosure openings required to be closed must use an acceptable method
  - A building enclosure opening is any permanent opening such as passages, doorways, bay doors, vents, roof openings, and windows
  - Acceptable methods to close openings
    - Door that automatically closes
    - Overlapping plastic strip curtains
    - Vestibule
    - Airlock system
    - Permanent construction to close opening
PAR 1426 Initial Recommendations
– Opening Restrictions

- Building enclosure openings on the exterior and on opposite ends of the building cannot be simultaneously open except for passage of equipment and people.
- Allows for openings on one side to be open, provided it is not facing a sensitive receptor within a 1,000 feet.
PAR 1426 Initial Recommendations – Openings Near Sensitive Receptors

- Close building enclosure openings within 1,000 feet of the property lines that directly face and open toward nearest:
  - Sensitive receptor (excluding schools); and
  - School
Rule Concepts: Recordkeeping and Reporting
Recordkeeping – Existing Rule 1426 (e)

- Cumulative rectifier usage recordkeeping
- Lacks best management practice recordkeeping
- Need to amend to account for housekeeping changes
- Lacks records of amp-hr meter replacements
- Retain records for five years

Recordkeeping needs to be amended based on proposed changes to housekeeping and BMP.
## PAR 1426 Recordkeeping – Initial Recommendations

<table>
<thead>
<tr>
<th>Retain Existing Requirements</th>
<th>Proposed Amended Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Require cumulative rectifier usage records each month and sum of monthly totals expended to date for calendar year</td>
<td><strong>3</strong> Maintain records related to housekeeping practices and best management practices</td>
</tr>
<tr>
<td><strong>2</strong> Maintain records for five years, last two years on site</td>
<td><strong>4</strong> Require recordkeeping for replacement of amp-hr meter of process tanks</td>
</tr>
</tbody>
</table>
Reporting – Existing Rule 1426 (c)

- One-time data collection of 2003 year
- Follow up report for any changes 2004 year
- Data collection for the above reports

Amendments needed to remove 2003/2004 reporting and data collection rule language and add a Tank Inventory Report
PAR 1426 Reporting
– Initial Recommendations (Reports)

Remove

• Initial Compliance Report for 2003 year
• Follow up report for changes in 2004 year
• Data collection for above reports

Add

• Submit an initial Tank Inventory Report and maintain a Tank Inventory Report on site for tanks with metals
  • Tank name and number
  • Permit and application number
  • Metal finishing operation (e.g. plating, electroless plating, stripping)
  • Metal and concentration (e.g. hexavalent chromium - 2000 ppm)
Rule Concepts: Exemptions
Exemptions – Inventory Submittals

- **Existing Rule 1426**
  - Facilities were required to submit emission inventory information pursuant to either Rule 1402 or Rule 1426
  - Submission of emission inventory information for Rule 1426 was only for the first few years after the date of adoption

- **Recommendation**
  - Remove provisions for emission inventory submittals
  - Provisions are obsolete and no longer needed
Exemptions – Potential Conflicts Between PAR 1426 and Rule 1469

- There are three general areas where staff looked at potential conflicts between PAR 1426 and Rule 1469:
  - Housekeeping requirements
  - Building enclosure requirements
  - Best management practices
- Staff compared the provisions under PAR 1426 and Rule 1469 to assess:
  - If there is a conflict between PAR 1426 and Rule 1469 requirements; or
  - If an additional requirement is appropriate for processes, areas, or tanks that do not have an equivalent requirement under Rule 1469
- If a conflict was identified, staff is recommending to build in exemptions to provide clarity to the operator
Exemptions – Evaluation of Building Enclosure Requirements

- PAR 1426 and Rule 1469 building enclosure requirements are different for Rule 1469 Tier I, II, and III tanks
- In general, the Rule 1469 building enclosure requirements are more stringent than PAR 1426

<table>
<thead>
<tr>
<th>Rule 1469 Tanks</th>
<th>Building Enclosure?</th>
<th>Additional Building Enclosure Requirements?</th>
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</thead>
<tbody>
<tr>
<td>Tier I Tank</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tier II Tank</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tier III Tank</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Exemptions – Evaluation of Building Enclosure Requirements

- Tier II and III tanks are required to be in a building enclosure with additional requirements (e.g. cross-draft, 3.5% allowed opening)
- To eliminate any conflict, staff is recommending:
  - Buildings that house Rule 1469 Tier II or III tanks would be exempt from PAR 1426 building enclosure requirements
  - Buildings that house Rule 1469 Tier I tanks would need to meet PAR 1426 building enclosure requirements
Exemptions – Evaluation of Housekeeping Requirements

- In general, PAR 1426 housekeeping requirements are equivalent or build upon the requirements in Rule 1469.
- PAR 1426 would extend Rule 1469 housekeeping requirements to PAR 1426 tanks.
- PAR 1426 would exempt housekeeping for processes, areas, or tanks where Rule 1469 and PAR 1426 requirements are the same.
Exemptions – Evaluation of Best Management Practice Requirements

- In general, PAR 1426 best management practice requirements are equivalent or build upon the requirements in Rule 1469.
- PAR 1426 requirements would extend on the requirements in Rule 1469 to include:
  - Tanks and areas not addressed in Rule 1469
  - Other areas
  - Non-chromium metals
- PAR 1426 would exempt best management practices for processes, areas, or tanks where Rule 1469 and PAR 1426 requirements are the same.
PAR 1426 – Air Sparging

Existing Rule 1426
• Facilities are prohibited from air sparging except:
  • When tank is in use
  • One hour prior to parts being placed in tank
  • One hour after parts are removed from tank
• Staff is recommending to amend the air sparging restriction to be similar to Rule 1469

Recommendation
• Remove allowance for air sparging up to one hour prior to parts being placed in the tank and one hour after parts removed from the tank
• PAR 1426 air sparging restriction would not extend to non-chromium tanks (i.e. nickel, cadmium, lead, and copper)
• PAR 1426 would exempt Rule 1469 chromium electroplating and chromic acid anodizing tanks as the requirement already exists in Rule 1469
# Exemptions – Best Management Practice Requirements for Tanks

<table>
<thead>
<tr>
<th>PAR 1426 Best Management Practice Requirements</th>
<th>Equivalent Rule 1469 Requirement</th>
<th>Impact of PAR 1426 for Rule 1469 Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimize drag-out</td>
<td>Yes – For Chromic Acid Anodizing and Chromium Electroplating Tank</td>
<td>Add PAR 1426 requirements for other chromium tanks and non-chromium tanks</td>
</tr>
<tr>
<td>Install barriers from tanks to separate polishing, buffing, and grinding</td>
<td>Yes – For Chromic Acid Anodizing and Chromium Electroplating Tank</td>
<td>Add PAR 1426 requirement for other chromium tanks</td>
</tr>
<tr>
<td>Prohibit air sparging of tanks with chromic acid when not in operation</td>
<td>Yes – For Chromic Acid Anodizing and Chromium Electroplating Tank</td>
<td>Add PAR 1426 requirements for Tier I tanks and non-chromium tanks</td>
</tr>
<tr>
<td>Spray rinsing</td>
<td>Yes – For Tier II and Tier III Tanks</td>
<td>Add PAR 1426 requirements for non-chromium tanks</td>
</tr>
<tr>
<td>Prohibit compressed near tanks</td>
<td>Yes – Within tank process area</td>
<td>Add PAR 1426 requirements for non-chromium tanks</td>
</tr>
</tbody>
</table>
Exemptions – Best Management Practice Requirements at a Rule 1469 Facility

<table>
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<tr>
<th>PAR 1426 Best Management Practice Requirements</th>
<th>Equivalent Rule 1469 Requirement</th>
<th>Impact of PAR 1426 for Rule 1469 Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct buffing and grinding within enclosures</td>
<td>Yes – Applies to entire facility</td>
<td>Equivalent</td>
</tr>
<tr>
<td>Eliminate fabric flooring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage of metals</td>
<td>Yes – Hexavalent Chromium</td>
<td>Add PAR 1426 requirements for non-hexavalent chromium metals</td>
</tr>
<tr>
<td>Use of closed containers during transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store, dispose of, recover, or recycle metal-containing wastes in closed containers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store equipment potentially contaminated with metals in closed containers or enclosed storage area when not in use</td>
<td>None</td>
<td>Add requirement for PAR 1426 metals</td>
</tr>
</tbody>
</table>
PAR 1426 Exemptions – Initial Recommendation Summary

- Remove exemptions for past Initial Compliance Report and Rule 1402 specified in Rule 1426 subdivisions (f) and (g)
- Exempt buildings that house Rule 1469 Tier II or III tanks from PAR 1426 building enclosure requirements
- Exempt housekeeping for processes, areas, or tanks where Rule 1469 and PAR 1426 requirements are the same
- Exempt best management practices for processes, areas, or tanks where Rule 1469 and PAR 1426 requirements are the same
Facility Survey – Additional Results
Additional results from facility surveys

- Approximately 350 potential PAR 1426 facilities
- Received 41 survey responses
- 3 survey responses received since last Working Group Meeting
Next Steps

- Release initial draft of PAR 1426 before the next Working Group Meeting
- Next Working Group Meeting will focus on PAR 1426 rule language
- Public Workshop January 2021
# PAR 1426 Staff Contacts

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