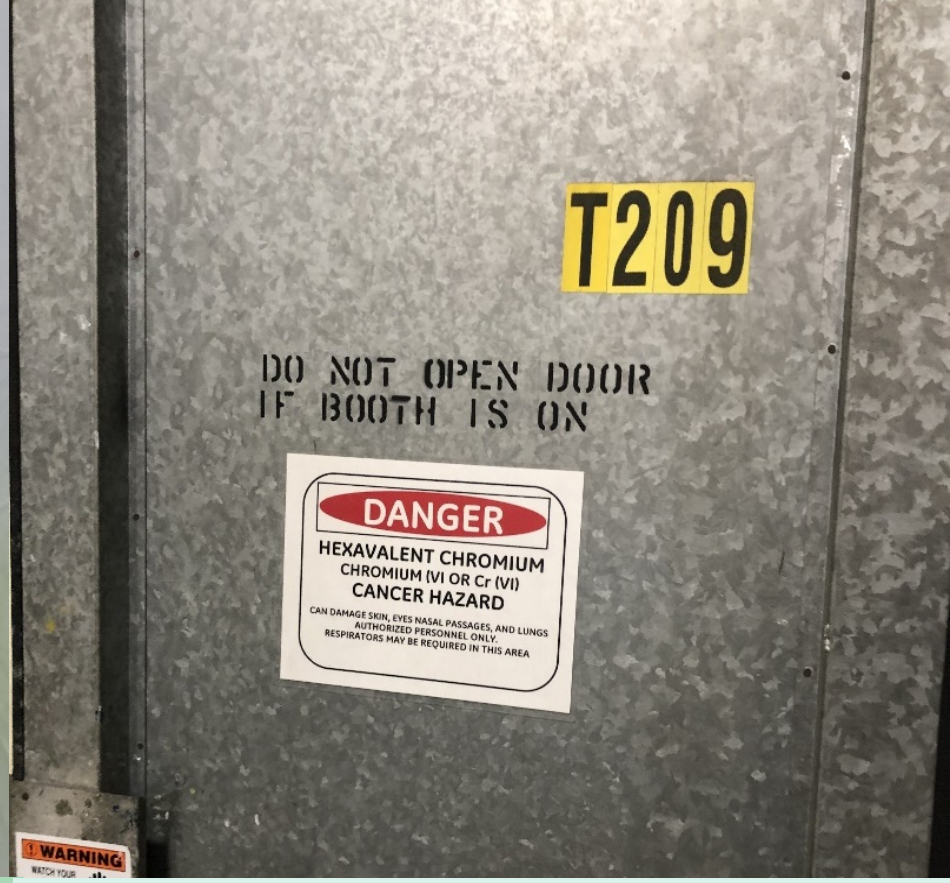


Proposed Amended Rule 1469.1 - Spraying Operations Using Coatings Containing Chromium

Working Group Meeting #6

January 13, 2021, at 10:00 AM

Zoom meeting link:

https://scaqmd.zoom.us/j/93195719916

Meeting ID: 931 9571 9916

Meeting Passcode: 799279

Dial-In: (669) 900-6833

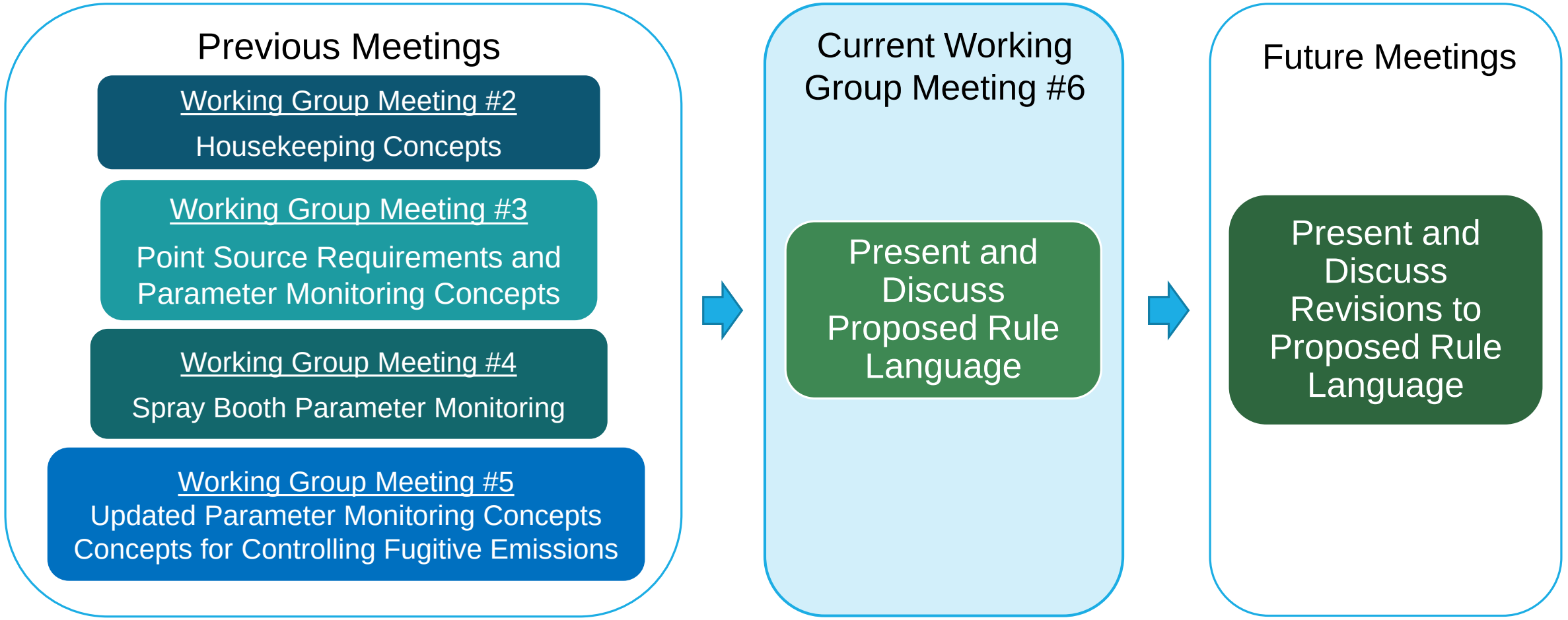
Meeting Agenda

- Rule Amendment Process to Date
- Addressing Stakeholder Comments from Working Group Meeting #5
- Proposed Rule Language
- Next Steps

Working Group Meeting #5 Summary October 22, 2020

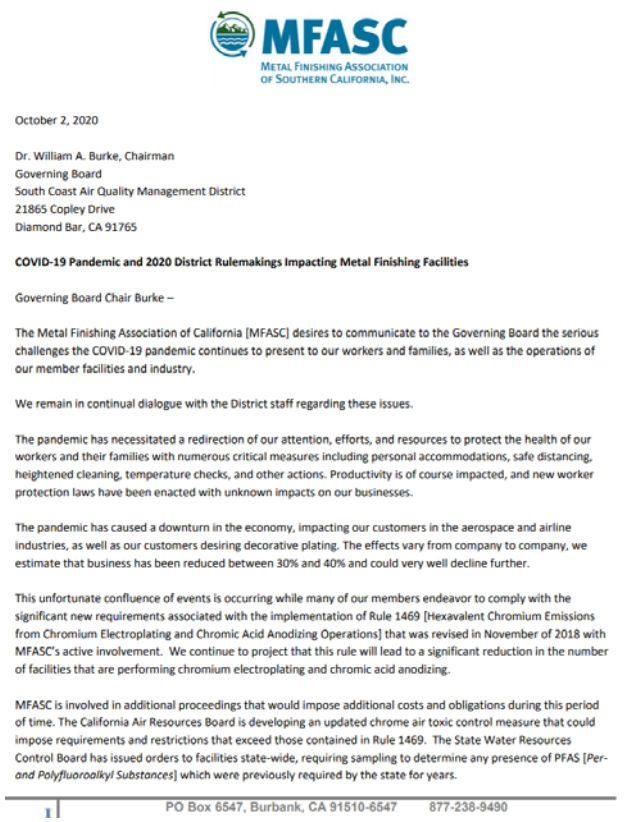
- Presented revised and updated proposals for spray booth parameter monitoring
  - Modified the velocity requirements and based evaluation on averages
  - Require velocity requirements at opening instead of both opening and filter face for open-faced spray booths
  - Established individual minimum velocity requirements
  - Reduced velocity measurement frequency
  - Removed pressure differential data logger requirement
- Introduced concepts for fugitive emission controls for activities taking place inside and outside of spray booths
- Discussed prohibiting newly permitted open face spray booths
- Introduced concepts for enhanced spray booth visual inspections

Overview of Rule Amendment Process for PAR 1469.1



Comment Letter from the Metal Finishing Association of Southern California

- South Coast AQMD received a comment letter on October 2, 2020
  - Industry is adjusting to impacts of the pandemic, including increased costs to protect workers and an overall reduction in business
  - Complying with Rule 1469 has taken substantial amount of resources
  - Future rulemaking from multiple agencies may also impact costs
- Full comment letter is available on the South Coast AQMD website for PAR1469.1



MFASC
Metal Finishing Association of Southern California, Inc.

October 2, 2020

Dr. William A. Burke, Chairman
Governing Board
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

COVID-19 Pandemic and 2020 District Rulemakings Impacting Metal Finishing Facilities

Governing Board Chair Burke –

The Metal Finishing Association of California [MFASC] desires to communicate to the Governing Board the serious challenges the COVID-19 pandemic continues to present to our workers and families, as well as the operations of our member facilities and industry.

We remain in continual dialogue with the District staff regarding these issues.

The pandemic has necessitated a redirection of our attention, efforts, and resources to protect the health of our workers and their families with numerous critical measures including personal accommodations, safe distancing, heightened cleaning, temperature checks, and other actions. Productivity is of course impacted, and new worker protection laws have been enacted with unknown impacts on our businesses.

The pandemic has caused a downturn in the economy, impacting our customers in the aerospace and airline industries, as well as our customers desiring decorative plating. The effects vary from company to company, we estimate that business has been reduced between 30% and 40% and could very well decline further.

This unfortunate confluence of events is occurring while many of our members endeavor to comply with the significant new requirements associated with the implementation of Rule 1469 [Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations] that was revised in November of 2018 with MFASC's active involvement. We continue to project that this rule will lead to a significant reduction in the number of facilities that are performing chromium electroplating and chromic acid anodizing.

MFASC is involved in additional proceedings that would impose additional costs and obligations during this period of time. The California Air Resources Board is developing an updated chrome air toxic control measure that could impose requirements and restrictions that exceed those contained in Rule 1469. The State Water Resources Control Board has issued orders to facilities state-wide, requiring sampling to determine any presence of PFAS [*Per- and Polyfluoroalkyl Substances*] which were previously required by the state for years.

PO Box 6547, Burbank, CA 91510-6547 877-238-9490

Stakeholder Comments from Working Group Meeting #5

Parameter Monitoring

- Conducting velocity measurements once a year is frequent enough to determine condition of equipment
- Continuous data logging for filter pressure drop should be kept as an option
- Is a filter minimum pressure drop useful and is it feasible to measure it?
- Will there be parameter monitoring exemptions for low-use spray booths?

Demasking

- Demasking is a housekeeping issue and should not be required to be vented to air pollution controls

Addressing Stakeholder Comments

- Based on stakeholder input, staff has revised concepts for parameter monitoring and demasking:
  - Modified frequency of velocity measurements for open face and enclosed spray booths [(g)(6)]
  - For filter pressure drop [(k)]:
    - Minimum pressure drop limit required only for final stage filters [(k)(3)]
    - Pressure drop readings required only on days when booth is operated [(k)(6)]
    - Facility may use a data logger instead of taking manual reading of pressure gauges [(k)(7)]
  - Demasking is not required to be vented to air pollution controls
    - Fugitive emissions minimized through housekeeping measures [(i)(1)(C) and (j)(5)]
- More detailed discussions in subsequent slides on rule language

Proposed Rule Language

Proposed Rule Language

Staff released Proposed Rule Language for PAR 1469.1 on January 9, 2021

Available on South Coast AQMD website on Proposed Rule webpage

- Proposed Rule Language based on concepts presented at previous working group meetings
- Incorporates stakeholder comments

PAR 1469.1 Structure

a) Purpose
b) Applicability
c) Definitions
d) Point Source Requirements
e) Alternate Point Source Requirements
f) Point Source Requirements for Dried Chromate Coating Removal Activities
g) Inward Face Air Velocity Requirements
h) Requirements for Building Enclosures
i) Housekeeping Requirements
j) Best Management Practices
k) Pressure Drop Across Filter Media
l) Visual Inspections
m) Recordkeeping
n) Prohibitions
o) Exemptions

Appendix 1 – Air Velocity Measurement Procedures

Appendix 2 - Compliance Plan for Subdivision (e) Alternate Point Source Requirements

Purpose (a) and Applicability (b)

(a) Purpose

The purpose of this rule is to reduce emissions of hexavalent chromium from spray coating operations.

(b) Applicability

This rule applies to an owner or operator conducting spraying of chromate coatings, dried chromate coating removal activities, demasking activities, and other chromate spraying related operations and activities.

- Added “emissions of”
- Clarified that PAR 1469.1 applies to:
  - Spraying of chromate coatings
  - Dried chromate coating removal activities
  - Demasking activities
  - Other related operations and activities

Deleted Definitions (c)

- Capture Efficiency
- Coating Application Equipment
- Control Efficiency
- Equipment
- Existing Air Pollution Controls
- Existing Source or Source
- New Source
- Primer
- Responsible Official
- Spraying Operation or Spraying Process

- Removed 10 existing definitions not used in PAR 1469.1

Amended and New Definitions (c)

NEW!

(1) APPROVED CLEANING METHODS means cleaning using a wet mop, damp cloth, wet wash, low pressure spray nozzle, HEPA vacuum, protective coverings, or other method as approved by the Executive Officer.

NEW!

(3) BENCH SPRAY BOOTH means a spray booth with a raised spray enclosure area typically used for smaller workpieces, in which the operator cannot stand within the enclosure.

NEW!

(4) BUILDING ENCLOSURE means a permanent building or physical structure, or a portion of a building, with a floor, walls, and a roof to prevent exposure to the elements, (e.g. precipitation, wind, run-off), with limited openings to allow access for people, vehicles, equipment, or workpieces.

(5) CHROMATE means strontium chromate, zinc chromate, lead chromate, barium chromate, calcium chromate, and any other chromate used in coatings for corrosion protection or other properties.

- Added definitions
  - "Approved Cleaning Methods" generally consistent with other rules with the addition of protective coverings
  - Bench Spray Booth
  - Building Enclosure
- Amended definition
  - Chromate amended to remove phrase "any salt or ester of chromic acid"

Amended and New Definitions (c)

(6) COATING means a material that is applied to a surface and that forms a continuous film in order to beautify and/or protect such surface and includes primers used for corrosion prevention, protection from the environment, functional fluid resistance and/or adhesion of subsequent coatings, adhesives, or sealants.

NEW!

(8) DEMASKING ACTIVITY means an activity in which tape or other masking material is removed from workpieces that have been coated with chromate coatings.

NEW!

(9) DRIED CHROMATE COATING REMOVAL ACTIVITY means an activity whereby dried chromate coatings on workpieces are removed through physical or mechanical means, such as buffing, scuffing, sanding, or grinding.

NEW!

(11) ENCLOSED SPRAY BOOTH means a spray booth with a ceiling and four sides that are enclosed during spraying operations and the only openings are for makeup air.

- Amended definition
  - Coating amended to include primers
- Added definitions
  - Demasking Activity
  - Dried Coating Removal Activity
  - Enclosed Spray Booth

Amended and New Definitions (c)

(16) HEPA VACUUM means a vacuum that is both designed to be fitted and used with a filter that is individually tested and certified by the manufacturer to have a control efficiency of not less than 99.97 percent on 0.3 micron particles.

(17) HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTER means a filter that is both individually tested and certified by the manufacturer to have a control efficiency of not less than 99.97 percent on 0.3 micron particles.

(19) OPEN FACE SPRAY BOOTH means for the purpose of this rule a spray booth with an impermeable ceiling in which one side of the booth is not enclosed, and air flows through the open face horizontally. Open face spray booth does not include any spray booth configured for downdraft ventilation.

- Added definition
  - HEPA Vacuum
- Amended definitions
  - HEPA Filter means both individually tested and certified by the manufacturer
  - Open Face Spray Booth previously referred to as open face enclosure, and description updated to include ceiling

Amended and New Definitions (c)

(21) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204, or other design approved by the Executive Officer.

(23) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

(24) SPRAY BOOTH means for the purpose of this rule any enclosure used to contain and capture:

(A) Overspray from the application of any chromate coatings; or

(B) Dried chromate coating particles from demasking activities, dried chromate coating removal activities, or other chromate coating-related operations.

- Added definitions
  - Permanent Total Enclosure
  - Spray Booth
- Amended definition
  - Sensitive Receptor description updated to be consistent with recently adopted and amended rules

Amended and New Definitions (c)

(26) TOUCH UP AND REPAIR OPERATION means the application of coating used to cover minor coating imperfections after the main coating operation is conducted.

(28) WORKPIECE SUPPORT EQUIPMENT means racks, stands, or other equipment used to hold or support workpieces during chromate spraying operations.

- Amended definition
  - Touch Up and Repair Operation amended to be consistent with other South Coast AQMD rules
- Added definition
  - Workpiece Support Equipment

Point Source Requirements (d)(1) and (d)(2) – Control Device or Alternative

(d)(3)(b)

(d) Point Source Requirements

(1) An owner or operator of a facility with a chromate spraying operation shall:

(A) Conduct spraying operations in a spray booth that is vented to an air pollution control system with filters individually tested and certified by the manufacturer to have a control efficiency of at least 99.97 percent on 0.3 micron or smaller particles; or

(B) Meet the alternate point source requirements of subdivision (e).

(2) An owner or operator of a facility with a chromate spraying operation that is currently meeting the alternate point source requirements pursuant to subparagraph (d)(1)(B) shall:

(A) On or before July 1, 2022, submit complete permit applications for a spray booth that meets the requirements of subparagraph (d)(1)(A); and

(B) No later than 18 months after a Permit to Construct has been issued, meet the requirements of subparagraph (d)(1)(A).

- Requires facilities to either:
  - Meet HEPA requirement or
  - Alternative Point Source Requirement
- Alternative Point Source Requirement is a previously approved Compliance Plan or Health Risk Assessment
- Facilities with Alternative Point Source requirement must:
  - Submit permit application by July 1, 2022; and
  - Meet HEPA requirement 18 months after Permit to Construct is issued

Point Source Requirements (d)(3) – Spray Booth Operating Requirements

NEW!

(3) When spraying chromate coatings, an owner or operator of a facility with a chromate spraying operation shall ensure that:

(A) Visible emissions do not exit the spray booth;

(B) The spray booth is ventilated such that an inward air flow is maintained at all air openings;

(C) The inward face air velocity of a spray booth meets the applicable requirements of subdivision (g) as measured pursuant to Appendix 1 – Inward Face Air Velocity Measurement Procedures; and

(D) The spray booth filters are free of leaks, breaks, and tears, and are properly seated.

- Specifies key operating requirements for a spray booth
- Modified existing provisions to provide more specificity and clarity
- Specifies inward face air velocity requirements spray booths
- Spray booth filters should be seated properly and free of leaks, breaks, and tears

Alternate Point Source Requirements for Chromate Spraying Operations (e)

- Three facilities currently meet heath risk compliance options allowed under existing Rule 1469.1 in lieu of the HEPA control device requirement
- Subdivision (e) requires:
  - Continued compliance with existing requirements
  - Annual submittal of coating usage reports
- Subdivision (e) is applicable until control device requirements in subparagraph (d)(1)(A) are met

Point Source Requirements for Dried Chromate Coating Removal Activities (f) – Control Device

NEW!

(f) Point Source Requirements for Dried Chromate Coating Removal Activities

(1) Beginning January 1, 2024, an owner or operator of a facility with a chromate spraying operation shall not conduct any dried chromate coating removal activity unless the activity is vented to a control device that is:

(A) Equipped with filters that are individually tested and certified by the manufacturer to have a control efficiency of at least 99.97 percent on 0.3 micron or smaller particles; and

(B) Operated pursuant to a South Coast AQMD Permit.

(2) An owner or operator of a facility with a chromate spraying operation that is conducting any dried chromate coating removal activity without a control device or with a control device that does not meet the requirements of subparagraphs (f)(1)(A) and (f)(1)(B) shall:

(A) On or before January 1, 2022, submit a complete permit application for a control device that meets the requirements of subparagraph (f)(1)(A); and

(B) No later than 18 months after a Permit to Construct has been issued, vent the dried chromate coating removal activity to the permitted control device that meets the requirements of paragraph (f)(1).

(3) An owner or operator of a facility with a chromate spraying operation conducting dried coating removal activity shall not operate a spray booth or other control device unless the filters are free of leaks, breaks, and tears, and are properly seated.

- Dried coating removal activities must be vented to air pollution controls by January 1, 2024
  - No permit modification required if filters meet requirements of (f)(1)(A)
- An operator that does not have pollution controls must:
  - Submit permit application by January 1, 2022
  - Vent dried coating activities to pollution controls 18 months after Permit to Construct is issued
- Added filter performance standard

Inward Face Air Velocity Requirements (g)(1), (g)(2), and (g)(3) – Measurements and Prohibition

(g) Inward Face Air Velocity Requirements

(d)(1)(b)

(1) Before January 1, 2022, an owner or operator with a chromate spraying operation shall conduct spraying operations in an open face spray booth that has an average inward face air velocity meets a minimum of 100 feet per minute or other minimum velocity approved by the Executive Officer.

(2) On and after January 1, 2022, an owner or operator with a chromate spraying operation shall demonstrate that the applicable average velocity and minimum velocity in Table 1 – Spray Booth Inward Face Air Velocity Requirements are met using the Appendix 1 – Inward Face Air Velocity Measurement Procedures.

(3) On and after January 1, 2022, an owner or operator of a facility with a chromate spraying operation shall not conduct chromate spraying operations or dried chromate coating removal activity in a spray booth unless the applicable average velocity and minimum velocity specified in Table 1 – Spray Booth Inward Face Air Velocity Requirements are met.

- Existing provisions for open spray booths until December 31, 2021
- Allows for initial assessment period
- After January 1, 2022, new requirements for inward face air velocity for:
  - Open and enclosed spray booths
  - Non-bench and bench spray booths
  - Prohibits operation of a booth after January 1, 2022 if the inward face velocity is not met

Table 1 – Spray Booth Inward Face Air Velocity Requirements

NEW!

Table 1 – Spray Booth Inward Face Air Velocity Requirements

Spray Booth Type	Measurement Location	Average Velocity of Measurement Points	Minimum Velocity at Each Measurement Point
Enclosed Non-Bench	At the filter face	100 feet per minute	75 feet per minute
Open Face Non-Bench	At the opening of the booth		
Enclosed Bench	At the filter face	150 feet per minute	125 feet per minute
Open Face Bench	At the opening of the booth		

Table 1:

- Specifies the measurement locations
- Specifies average and minimum velocity requirements
- Applicable as of January 1, 2022

Appendix 1 establishes measurement procedures

Inward Face Air Velocity Requirements (g)(4) – Spray Booths That Cannot Meet Velocity Requirements

(4) In lieu of meeting the requirements of paragraph (g)(2) by the date specified in paragraph (g)(3), an owner or operator of a facility with a chromate spraying operation shall:

(A) On or before January 1, 2022, submit a complete permit application to modify the spray booth; and

(B) Modify the spray booth no later than 18 months after a Permit to Construct has been issued.

- Incorporates provision to allow operators that cannot meet the inward face air velocity requirements to modify the spray booth
- Operators must:
  - Submit a permit application by January 1, 2022
  - Modify spray booth to meet inward face air velocity requirements 18 months after Permit to Construct is issued

Inward Face Air Velocity Requirements (g)(5), (g)(6), and Table 2 – Frequency of Measurements

NEW!

(5) No later than 30 days after a spray booth has been modified pursuant to subparagraph (g)(4)(B), conduct an air velocity measurement that meets the requirements of paragraph (g)(2).

NEW!

(6) After conducting an air velocity measurement pursuant to paragraph (g)(2), an owner or operator of a facility with a chromate spraying operation shall conduct an air velocity measurement according to the measurement frequency in Table 2 – Spray Booth Inward Face Air Velocity Measurement Frequency.

Table 2 - Spray Booth Inward Face Air Velocity Measurement Frequency

Spray Booth Type	Measurement Frequency
Enclosed Non-Bench or Bench	At least once every 12 calendar months from the previous measurement
Open Face Non-Bench or Bench	At least once every six calendar months from the previous measurement

- Modified frequency of measurements based on stakeholder input
- Requires inward face air velocity measurements:
  - Every 6 months for an open face bench or non-bench spray booth
  - Every 12 months for an enclosed bench or non-bench spray booth

Inward Face Air Velocity Requirements (g)(7) – Provisions for Failed Measurement

NEW!

(7) An owner or operator of a facility with a chromate spraying operation that fails to meet the average velocity or minimum velocity in Table 1 – Spray Booth Inward Face Air Velocity Requirements shall:

(A) Not operate the spray booth for chromate spraying operations or dried chromate coating removal activities;

(B) Notify the Executive Officer within 24 hours of the failed air velocity measurement by calling 1-800-CUT-SMOG; and

(C) Conduct an air velocity measurement that meets the applicable average velocity and minimum velocity requirements in Table 1 - Spray Booth Inward Face Air Velocity Requirements.

- If failed measurement is conducted, operator must:
  - Cease operations in spray booth
  - Notify South Coast AQMD
  - Prior to resuming activities, conduct inward face air velocity measurement that meets applicable inward face air velocity requirement

Inward Face Air Velocity Requirements (g)(8) and (g)(9) – Provisions for Returning to Regular Measurement Schedule

NEW!

(8) An owner or operator of a facility with a chromate spraying operation that has conducted an air velocity measurement pursuant to subparagraph (g)(7)(C) shall:

(A) Notify the Executive Officer within 24 hours of the air velocity measurement being conducted by calling 1-800-CUT-SMOG; and

(B) Conduct an air velocity measurement every 30 days that meets the applicable average velocity and minimum velocity specified in Table 1 – Velocity Requirements.

NEW!

(9) After three consecutive inward face air velocity measurements pursuant to subparagraph (g)(7)(C), that meet the applicable average velocity and minimum velocity specified in Table 1 – Spray Booth Inward Face Air Velocity Requirements, an owner or operator of a facility with a chromate spraying operation may elect to conduct air velocity measurements at the measurement frequency specified in Table 2 – Spray Booth Inward Face Air Velocity Measurement Frequency.

- After conducting a compliant measurement
  - Notify South Coast AQMD
  - Take measurements every 30 days
  - After three consecutive compliant measurements, future air velocity measurements can be conducted at frequencies in Table 2

Requirements for Building Enclosures (h)(1), (h)(2), and (h)(3) – Operations and Activities that Must Occur within a Building Enclosure

(h) Requirements for Building Enclosures

(1) An owner or operator of a facility with a chromate spraying operation shall conduct the following within a building enclosure:

(A) Spraying operations;

(B) Dried chromate coating removal activities; and

(C) Demasking activities.

(2) An owner or operator of a facility with a chromate spraying operation shall store workpiece support equipment within a building enclosure.

(3) An owner or operator of a facility with a chromate spraying operation shall store cleaning equipment used to conduct housekeeping activities pursuant to subdivision (i) within a building enclosure.

- Specifies which operations and types of equipment must be stored within a building enclosure
- An enclosed spray booth is considered a building enclosure

Requirements for Building Enclosures (h)(4) – Requirements for Openings

(4) Beginning January 1, 2022, except for the movement of vehicles, equipment, or people, an owner or operator of a facility with a chromate spraying operation shall:

(A) Close any building openings within 20 feet of:

(i) The opening of an open face spray booth;

(ii) Areas where dried chromate coating removal activities occur; and

(iii) Areas where demasking activities occur; and

(B) Use one of more of the following methods to close building openings:

(i) Door that automatically closes;

(ii) Overlapping plastic strip curtains;

(iii) Vestibule;

(iv) Airlock system; or

(v) Alternative method to minimize the release of fugitive emissions from the building that an owner or operator of a facility with chromate coating spraying operations can demonstrate to the Executive Officer is an equivalent or more effective method to minimize the movement of air from within the building to the outside.

- By January 1, 2022, building openings within 20 feet of specified activities are required to be closed
- Methods are provided on how to close building openings, consistent with other toxic metal particulate rules

Housekeeping Requirements (i)(1) and (i)(2) – Routine Cleaning

(i) Housekeeping Requirements

Beginning January 1, 2022, an owner or operator of a facility with a chromate spraying operation shall:

(1) Use an approved cleaning method to clean, at the frequencies specified in Table 3 – Cleaning Frequencies, all floor areas within 20 feet of:

(A) Areas from the opening of an open face spray booth;

(B) Ingresses and egresses of an enclosed spray booth located within a building enclosure;

(C) Areas where dried chromate coating removal or demasking activities are conducted;

(D) Areas where chromate coatings are mixed;

(E) Storage areas for equipment and materials that may contain chromates; and

(F) Waste storage areas for materials that may contain chromates.

(2) Use an approved cleaning method to clean, at the frequencies specified in Table 3 – Cleaning Frequencies, all floor areas within:

(A) Workpiece support equipment transit paths identified in paragraph (j)(6); and

(B) Workpiece support equipment storage areas identified in paragraph (j)(7).

- All housekeeping measures are effective January 1, 2022
- Specifies areas to be cleaned using approved cleaning methods
- Cleaning frequency specified in Table 3 (next slide)

Housekeeping Requirements – Cleaning Frequencies

NEW!

Table 3 – Cleaning Frequencies

Applicable Provisions	For Areas Not Located Within a Permanent Total Enclosure	For Areas Located Within a Permanent Total Enclosure
(i)(1)(A)	Once per day on days when chromate spraying operations are conducted	Once per week, for any week when chromate spraying operations are conducted on one or more days
(i)(1)(B)	Once per week, for any week when chromate spraying operations are conducted on one or more days	Once per month, for any month when chromate spraying operations are conducted on one or more days
(i)(1)(C)	Once per day on days when activities are conducted	Once per week, for any week when activities are conducted on one or more days
(i)(1)(D), (i)(1)(E), and (i)(1)(F)	Once per week, for any week when activities are conducted on one or more days	Once per month, for any month when activities are conducted on one or more days
(i)(2)(A)	Once per day on days when workpiece support equipment is moved	Once per week, for any week when workpiece support equipment is moved on one or more days
(i)(2)(B)	Once per week, for any week when workpiece support equipment is moved on one or more days	Once per month, for any month when workpiece support equipment is moved on one or more days

- Table 3 Cleaning Frequencies
  - Cleaning frequencies dependent on chromate spraying operations
  - Less frequent cleaning required within a permanent total enclosure

Housekeeping Requirements (i)(3) to (i)(6) – Routine Cleaning

(3) Use an approved cleaning method to clean all ground areas within 20 feet of ingresses and egresses of an enclosed spray booth located outside a building enclosure once per day on days when chromate spraying operations are conducted within the spray booth.

(4) Use an approved cleaning method to clean spills of liquid or solid material that may contain chromates immediately but no later than one hour after being spilled.

(5) Use an approved cleaning method to clean all floors within a spray booth without protective coverings at least once per week, during any week when activities subject to this rule are conducted on one or more days within the spray booth.

(6) Remove and replace all spray booth protective floor or wall coverings at least quarterly.

- Clean areas around access points to an enclosed spray booth located outside a building enclosure
- Clean spills immediately
- For spray booths without coverings, clean floors weekly
- Remove and replace spray booth coverings at least quarterly

Housekeeping Requirements (i)(7) to (i)(10) – Duct Cleaning, Waste Containers, HEPA Vacuums

NEW!

(7) Clean a spray booth exhaust duct downstream of the final stage filter media in a manner that minimizes fugitive emissions:
  (A) No later than January 1, 2023; and
  (B) At least once every three years from the previous cleaning.

(8) Notify the Executive Officer at least 72 hours prior to cleaning the spray booth exhaust duct pursuant to paragraph (i)(7) by calling 1-800-CUT-SMOG.

(9) Place all waste material that may contain chromates immediately in leak-proof containers which shall remain closed except when containers are being filled or emptied. If waste material will be transferred to other on-site containers, the containers shall be lined with sealable removeable bags.

(10) Ensure that if a HEPA vacuum is used, that the HEPA filter is free of leaks, breaks, tears, or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system.

- Clean the exhaust duct downstream of the final stage filter no later than January 1, 2023 and every three years after
- Notify South Coast AQMD prior to cleaning the exhaust duct
- Immediately place waste in closed containers
  - Use leak proof containers and liners if waste is transferred
- Ensure proper operation of HEPA vacuums

Best Management Practices (j)(1)(A) and (j)(1)(B) – Chromate Spraying Operations

(j) Best Management Practices

(1) Chromate Spraying Operations

An owner or operator of a facility with a chromate spraying operation shall:

(A) Keep ingresses and egresses of an enclosed spray booth closed while conducting spraying operations; and

(B) On or before July 1, 2022, install a system that prevents the use of spray equipment unless the air pollution control system for the spray booth is operating.

- Close doors of enclosed booths while spraying
- By July 1, 2022, use a system to ensure air pollution control system is operating while spraying

Best Management Practices (j)(2) – Spray Booth Operations

(2) Spray Booth Operations

An owner or operator of a facility with a chromate spraying operation shall:

(d)(7)(A)

(A) When removing protective floor, wall, or exhaust coverings within the spray booth:

(i) Operate the air pollution control system;

(ii) Ensure that the ingresses and egresses of an enclosed spray booth are closed;

(iii) Encapsulate all material that may contain chromates that are intended to be disposed of in a bag or container before removing from the spray booth; and

(iv) Transfer the encapsulated materials to a closed leak-proof container.

(d)(1)(C)

(B) Operate the air pollution control system for a minimum of three air exchanges within the spray booth or five minutes, whichever is longer:

(i) After spraying operations have ceased; and

(ii) After removing protective floor, wall, or exhaust coverings within the spray booth

NEW!

(C) Post on the spray booth, in a location that is clearly visible and accessible to the spray booth operator, the minimum ventilation time needed to meet the requirements of subparagraph (j)(2)(B).

(d)(7)(B)

(D) Not operate the air pollution control system when one or more filters, including HEPA filters, are being removed or replaced.

NEW!

NEW!

NEW!

- Maintain existing protective cover replacement procedures
  - Added requirement for materials to be transferred to leak-proof containers
- Modified time to operate air pollution control system after spraying operations cease
- Added requirement to operate air pollution control system during and after replacement of protective coverings
- Added requirement to post minimum ventilation time in an accessible and visible location
- Maintain requirement to only operate ventilation system with filters in place

Best Management Practices (j)(3) – Transfer Efficiency

(d)(2)

(3) Transfer Efficiency

An owner or operator of a facility with a chromate spraying operation shall not spray chromate coatings unless the chromate coatings are applied according to operating procedures specified by the equipment manufacturer, or applicable permit conditions, and by use of one of the following methods:

(A) High-Volume, Low-Pressure Spray;

(B) Electrostatic Application; or

(C) Such other alternative application methods as are demonstrated to the Executive Officer in accordance with the South Coast AQMD method (Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989), or subsequent revisions to be capable of achieving at least equivalent transfer efficiency to the method in subparagraph (j)(3)(A) and for which written approval of the Executive Officer has been obtained.

- Based on existing minimum transfer efficiency requirement
- Moved non-spraying application methods to Exemptions, subdivision (o)
- Reference to Spray Equipment Test Procedure moved from existing Subdivision (i)

Best Management Practices (j)(4) and (j)(5) – Dried Coating Removal and Demasking Activities

NEW!

(4) Dried Chromate Coating Removal Activities

An owner or operator of a facility with a chromate spraying operation that conducts any dried chromate coating removal activity in an enclosed spray booth shall keep ingresses and egresses of the spray booth closed while conducting dried chromate coating removal activities.

NEW!

(5) Demasking Activities

Beginning July 1, 2021, an owner or operator of a facility with a chromate spraying operation conducting any demasking activity outside of an enclosed spray booth or a permanent total enclosure shall not:

(A) Operate fans within 20 feet of tables or other surface areas where demasking activity occurs; and

(B) Use compressed air to clean workpieces of tables or other surface areas where demasking activity occurs.

- Keep doors closed when conducting dried coating removal in enclosed booths
- Beginning July 1, 2021, do not operate fans or use compressed air in demasking areas to avoid generation of fugitive dust

Best Management Practices (j)(6) and (j)(7) – Workpiece Support Equipment

NEW!

(6) Workpiece Support Equipment Used During Chromate Spraying Operations

Beginning July 1, 2021, an owner or operator of a facility with a chromate spraying operation that moves workpiece support equipment outside of a spray booth or permanent total enclosure shall:

(A) Establish and clearly mark transit paths outside of the spray booth or permanent total enclosure; and

(B) Transport equipment within established transit paths.

NEW!

(7) Storage of Workpiece Support Equipment Used During Chromate Spraying Operations

Beginning July 1, 2021, an owner or operator of a facility with a chromate spraying operation that stores workpiece support equipment outside of a spray booth or permanent total enclosure shall:

(A) Establish and clearly mark storage areas used to store workpiece support equipment; and

(B) Store workpiece support equipment within established storage areas.

- Beginning July 1, 2021, transport and store workpiece support equipment in designated areas

Pressure Drop Across Filter Media (k)(1) – Existing Provision

(k) Pressure Drop Across Filter Media

(k)(2)

(1) Before January 1, 2022, an owner or operator of a facility with a chromate spraying operation shall install a gauge to continuously monitor the pressure drop across the spray booth filter media in a location that is easily visible and in clear sight of the operation or maintenance personnel. The pressure drop shall be maintained at or below the pressure drop prescribed by a permit condition, or by the manufacturer's recommended operating range if no permit condition limits pressure drop.

- Retains existing provision to continuously monitor pressure drop and maintain pressure drop across filter media at or below:
  - Maximum pressure drop in South Coast AQMD permit
  - Manufacturer's recommended operating range if not specified in permit

Pressure Drop Across Filter Media (k)(2) – Pressure Gauge for Final Stage Filters and Maximum Pressure Drop

(2) On and after January 1, 2022, an owner or operator of a facility with a chromate spraying operation shall:

(A) Install a pressure gauge to continuously monitor the pressure drop across the spray booth final stage filter media; and

(B) Maintain the pressure drop across the spray booth final stage filter media at or below the maximum pressure drop specified in a South Coast AQMD permit or the filter manufacturer's recommended maximum pressure drop, whichever is lower.

- On and after January 1, 2022, facilities must have gauge for final stage filter and operate at or below maximum pressure drop in South Coast AQMD permit or per Manufacturer's recommendations, whichever is lower

Pressure Drop Across Filter Media (k)(3) and Table 4 – Minimum Pressure Drop

(3) An owner or operator of a facility with a chromate spraying operation shall maintain the pressure drop across the spray booth final stage filter media at or above the minimum pressure drop pursuant to Table 4 – Minimum Pressure Drop Requirements.

Table 4 – Minimum Pressure Drop Across Final Stage Filters

Availability of Minimum Pressure Drop Information	Minimum Pressure Drop Requirement	Effective Date
Specified in a South Coast AQMD permit	Specified in a South Coast AQMD permit	[Date of Rule Adoption]
Not specified in South Coast AQMD permit, but filter manufacturer provides a recommended minimum operating range	At least 90% of the filter manufacturer's recommended minimum operating range	On and after January 1, 2022
Not specified in South Coast AQMD permit, and filter manufacturer does not provide a recommended minimum operating range	Measure pressure drop to establish the minimum pressure drop across existing final stage filter media in place before January 1, 2022	January 1, 2022 until new final stage filter media replacement
	Measure pressure drop to establish the minimum pressure drop across new final stage filter media replaced after January 1, 2022	After new final stage filter media replacement

- On and after January 1, 2022, if not specified on a South Coast AQMD permit, maintain pressure drop across final stage filters above a minimum pressure drop:
  - Established by manufacturer's recommendations, or
  - Established through initial measurements

Pressure Drop Across Filter Media
(k)(4) and (k)(5) – Prohibition on Operation and Filter Specifications

NEW!

(4) An owner or operator of a facility with a chromate spraying operation shall not operate a spray booth if the pressure drop across the final stage filter media is above the maximum limits specified in paragraph (k)(1) or subparagraph (k)(2)(B), or below the minimum limits specified in Table 4 – Minimum Pressure Drop Requirements.

NEW!

(5) An owner or operator of a facility with a chromate spraying operation shall maintain onsite, and make available to the Executive Officer:

(A) The filter technical specification sheets for all spray booth final stage filter media installed in a spray booth; and

(B) Any minimum drop established in accordance with Table 4 – Minimum Pressure Drop Requirements.

- Cease operations if pressure drop is outside of acceptable limits
- Maintain filter specifications or other information used to establish minimum pressure drop onsite

Pressure Drop Across Filter Media (k)(6) and (k)(7) – Measuring the Pressure Drop

(j)(2)(D)

(6) An owner or operator of a facility with a chromate spraying operation shall record the pressure drop as measured by the gauge required in paragraph (k)(1) or subparagraph (k)(2)(A) at least once on days when a chromate spraying operation or dried chromate coating removal activity is conducted within the spray booth.

(7) An owner or operator of a facility with a chromate spraying operation shall install, operate, and maintain a continuous data acquisition system (DAS), in accordance with manufacturer's specifications, in lieu of meeting the requirements of paragraph (k)(4), that:

(A) Records the data output from the gauge required in paragraph (k)(2)(A) at a frequency of not less than once every sixty (60) minutes on days when a chromate spraying operation or dried chromate coating removal activity is conducted within the spray booth; and

(B) Generates a data file on days when a chromate spraying operation or dried chromate coating removal activity is conducted within the spray booth, saved in Microsoft Excel (xls or xlsx) format or other format as approved by the Executive Officer. The file shall contain a table of chronological date and time and the corresponding data output value from the gauge required in paragraph (k)(2)(A) in inches of water column.

Based on stakeholder input, two options to measure pressure drop

- Manually, on each day spray booth is used; or
- Using a continuous data acquisition system (DAS)
  - Recordings every 60 minutes on days spray booth is used

Pressure Drop Across Filter Media (k)(8) – Alarm System

NEW!

(8) On or before July 1, 2022, an owner or operator of a facility with a chromate spraying operation shall:

(A) Install and operate an audible alarm at the spray booth final stage filter media, to alert when the pressure drop is above the maximum limit specified in subparagraph (k)(2)(B), or below the minimum limit specified in paragraph (k)(2)(C);

(B) Test the alarm system annually to ensure proper operation;

(C) Not operate the spray booth if the alarm is activated;

(D) Notify the Executive Officer within 24 hours of alarm activation by calling 1-800-CUT-SMOG; and

(E) Ensure the pressure drop is below the maximum limit specified in subparagraph (k)(2)(B), and above the minimum limit specified in paragraph (k)(2)(C) before operating the spray booth.

- Requires installation and operation of audible alarm to alert exceedance of pressure limit
- If alarm is activated
  - Stop operating spray booth
  - Notify South Coast AQMD
  - Resume operation after corrective actions taken and pressure drop is within the allowable range

Visual Inspections - (l)(1) and (l)(2)

(k)(1)

(l) Visual Inspections

(1) An owner or operator of a facility with a chromate spraying operation shall perform a weekly inspection of any filter media subject to this rule for leaks, breaks, tears, and improper seating.

NEW!

(2) If filter media has leaks, breaks, tears or is improperly seated, an owner or operator of a facility with a chromate coating operation shall notify the Executive Officer within 24 hours of the observation by calling 1-800-CUT-SMOG.

- Incorporates existing provision for weekly inspections
- If leaks, breaks, and tears are observed or if filter media is improperly seated, notify South Coast AQMD within 24 hours

Recordkeeping Requirements (m)(1) and (m)(2) – Coatings Usage, Housekeeping, BMPs

(m) Recordkeeping Requirements

(j)(1)

(1) Coatings Usage Records

An owner or operator of a facility with a chromate spraying operation shall maintain:

(A) Purchase records of chromate coatings used for spray coating operations;

(B) Safety Data Sheets provided for the materials subject to the requirements of subparagraph (m)(1)(A) that indicate the weight percent of chromate(s) in the coating, and the density of the coating;

(C) Daily usage records for each coating subject to this requirement, applied or used daily; and

(D) Application method for each coating used.

NEW!

(2) Housekeeping and Best Management Practice Records

An owner or operator of a facility with a chromate spraying operation shall maintain records demonstrating compliance with housekeeping requirements specified in subdivision (i) and best management practices specified in subdivision (j).

- Maintain existing coatings usage recordkeeping requirement
- Clarify housekeeping requirements and add BMP recordkeeping
  - Consistent with requirements in recent toxic metal particulate rules

Recordkeeping Requirements (m)(3)(A) to (m)(3)(D) – Velocity Measurements, Pressure Drop, Filter Replacement, and Alarm Maintenance

(3) Monitoring Records

An owner or operator of a facility with a chromate spraying operation shall:

NEW!

(A) Maintain records of air velocity measurements required by subdivision (g), including:

(i) Name of the person(s) performing measurements;

(ii) Identification of each spray booth, including the Permit Number or Device Identification Number;

(iii) Date and time the measurements were taken;

(iv) Description of the measurement equipment;

(v) Calibration records for the measurement equipment;

(vi) Results of the measurements for each spray booth; and

(vii) Description of any maintenance and repair activities conducted for any spray booth.

(j)(2)

(B) Maintain records of spray booth pressure drop readings as required in paragraph (k)(8) or DAS data files as required in paragraph (k)(9).

NEW!

(C) Maintain records of spray booth final stage filter media replacement and established minimum pressure drop as required in paragraph (k)(3).

NEW!

(D) Maintain records of the alarm system maintenance required by paragraph (k)(10), including:

(i) Name of the person(s) performing the inspection and/or maintenance operations on each alarm system; and

(ii) Date and time of routine maintenance inspections conducted on each alarm system;

- New recordkeeping requirements for additional monitoring activities:
  - Air velocity measurements
  - Final stage filter replacement and minimum pressure drop establishment
  - Alarm system maintenance
- Existing requirement for pressure drop recordkeeping with updated frequency

Recordkeeping Requirements (m)(3)(E) – Visual Monitoring

NEW!

(E) Maintain records of the visual inspections required by subdivision (l), including:

(i) Name of the person(s) performing the visual inspection for each spray booth or other control device;

(ii) Identification of each spray booth, including the Permit Number or Device Identification Number;

(iii) Date and time of the visual inspection;

(iv) Documentation of filter media found to have any leaks, breaks, or tears, or found to be improperly installed; and

(v) Description of any maintenance and repair activities conducted for any spray booth or other control device.

- New recordkeeping requirements for recording visual inspections
  - Booth ID, date, listing of repairs

Recordkeeping Requirements (m)(4) – Records Retention

(4) Records Retention

(j)(3)

(A) Until the provisions of subparagraph (m)(4)(B) are met, an owner or operator of a facility with a chromate spraying operation shall maintain all records for three years, with at least the two most recent years kept onsite, and made available to the Executive Officer upon request. Records kept offsite shall be made available within one week of the request.

(B) Beginning [Two Years After Date of Rule Adoption], an owner or operator of a facility with a chromate spraying operation shall maintain all records for five years, with at least the two most recent years kept onsite, and made available to the Executive Officer upon request. Records kept offsite shall be made available within one week of the request.

- Continue to implement existing records retention requirement
- Future records retention requirement updated to be five years
  - Consistent with recent toxic metal particulate rules

Prohibitions (n)(1) and (n)(2) – New Open Face Spray Booths

(n) Prohibitions

(1) Beginning [Date of Rule Adoption], an owner or operator of a facility with a chromate spraying operation shall not install or construct a new open face spray booth for chromate spraying operations unless the open face spray booth is located within a permanent total enclosure which is vented to air pollution control equipment that meets the requirements of subparagraph (d)(1)(A).

(2) Beginning [Date of Rule Adoption], an owner or operator of a facility with a chromate spraying operation shall not install or construct a new spray booth for chromate spraying operations unless the spray booth is located within a building enclosure.

- Prohibitions added for new
  - Open face spray booths unless within a permanent total enclosure
  - Enclosed booths located outside a building enclosure

Exemptions (o)(1), (o)(2) & (o)(3) – Thermal Spraying, Non-Spraying & Touch Up and Repair

(o) Exemptions

(b) (1) The requirements of this rule shall not apply to thermal spraying operations.

NEW! (2) The requirements of subparagraph (d)(1)(A) and paragraph (d)(3) shall not apply to operations where chromate coatings are applied by flow coater, roll coater, dip coater, or hand application methods.

(h)(1) & (h)(2) (3) The requirements of subparagraph (d)(1)(A) and paragraphs (d)(3) and (j)(3) shall not apply to any touch up and repair operation spraying chromate coatings that is conducted outside of a spray booth, provided the touch up and repair operation is performed inside a building enclosure, and emissions and cancer risk from the touch up and repair operation are calculated and included in an approved facility-wide health risk assessment which limits the cancer risk to 10 in a million.

- Amended exemptions
  - Added thermal spraying exemption to clarify rule applicability
  - Added exemption to control device requirements for non-spraying coating application methods
  - Touch up and repair exemption clarified

Appendix 1 – Inward Face Air Velocity Measurement Procedures

- Equipment
  - Anemometer: capable of measuring air velocity in feet per minute with an accuracy of +/- 10% at full scale
- Test Conditions
  - Normal spray booth operating conditions
- Procedures
  - Locations: five-point grid pattern between 6 to 12 inches from filter face or no more than 1 inch inside plane of open filter face
- Reporting
  - Example provided

Appendix 2 – Compliance Plans for Alternate Point Source Requirements

- Applicable to facilities with an approved compliance plan
  - Attachment 1 - Emission Calculation Method
  - Attachment 2 - Measuring Distance to a Residential or Sensitive Receptor

Appendix 1

Appendix 2

Next Steps

- Present revised proposed rule language at next working group meeting
- Public Workshop in February
- Update Stationary Source Committee in March
- Public Hearing scheduled for May 2021 Governing Board meeting

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