

PROPOSED **SPRAYING OPERATIONS USING COATINGS**
AMENDED **CONTAINING CHROMIUM**
RULE 1469.1

[Rule Index to be included after adoption]

(a) Purpose

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

(b) Applicability

~~This rule shall apply to an owner or operator conducting any operation in which spraying of chromate coatings containing hexavalent chromium are sprayed, dried chromate coating removal activities, demasking activities, with the exception of thermal spraying operations, and other chromate spraying related operations and activities. Compliance with this rule shall be in addition to other applicable rules.~~

(c) Definitions

For the purpose of this rule the following definitions shall apply:

(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.

(42) APPROVED HEALTH RISK ASSESSMENT means a health risk assessment prepared pursuant to Rule 1402 that is approved by the Executive Officer.

(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.

(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.

(2) CAPTURE EFFICIENCY is the percentage of the mass of the solids fraction of overspray that is collected and directed to an air pollution control device.

(c) (35) CHROMATE is ~~any salt or ester of chromic acid. For the purpose of this rule, chromate~~ means strontium chromate, zinc chromate, lead chromate,

barium chromate, calcium chromate, and any other chromate used in ~~primers or~~ coatings for corrosion protection or other properties.

- (46) COATING means is a material which is applied to a surface and which 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.
- (5) ~~COATING APPLICATION EQUIPMENT~~ are those used for applying coating to a substrate. ~~Coating application equipment includes coating distribution lines, coating hoses, pressure pots, spray guns, and hand-application equipment, such as hand rollers, brushes, daubers, spatulas, and trowels.~~
- (67) COMPLIANCE PLAN APPROVAL LETTER means is the official notice of approval for a Compliance Plan.
- (7) ~~CONTROL EFFICIENCY means~~ is the difference between the uncontrolled and the controlled total emissions divided by the total emissions and multiplied by 100. ~~Control efficiency is represented by the following equation:~~

$$\eta = \frac{T_u - T_c}{T_u} \times 100$$

~~Where~~ η = Control Efficiency.

~~T_u~~ = Uncontrolled Emissions of Hexavalent Chromium

~~T_c~~ = Controlled Emissions of Hexavalent Chromium

- (8) DEMASKING ACTIVITY means an activity in which tape or other masking material is removed from workpieces that have been coated with chromate coatings.
- (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.
- (81) ELECTROSTATIC APPLICATION means is charging of atomized paint droplets for deposition by electrostatic attraction.
- 0)

- (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.
- ~~(9) EQUIPMENT includes the spray gun or other application device, the booth, enclosure or other area in which the spraying process occurs, and the associated air pollution control equipment.~~
- (40) EXHAUST COVERING means a material placed in front of existing filters and pre-filters, that is located on the inside of a spray enclosure and that is not part of the designed filter system.
- ~~(11) EXISTING AIR POLLUTION CONTROLS means all control equipment existing as of March 4, 2005.~~
- ~~(16)~~ (12) EXISTING SCHOOL means any school, public or private, kindergarten through grade 12, existing as of March 4, 2005.
- ~~(13) EXISTING SOURCE or SOURCE means any process where spraying primers or coatings containing chromium that is operating on or before March 4, 2005.~~
- ~~(18)~~ (14) FACILITY means any source or group of sources or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or persons under common control), or an outer continental shelf as determined in 40 CFR Section 55.2. Such above-described groups, if non-contiguous, but connected by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or Outer Continental Shelf (OCS) Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility onshore.
- (15) HAND APPLICATION METHOD means is the application of materials by manually held, non-mechanically operated equipment. Such equipment includes paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.
- (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.

- (16) HIGH EFFICIENCY PARTICULATE ARRESTORS—AIR (HEPA)
- 17) FILTER means a filter(s) that is both individually tested and certified by the manufacturer to have a control efficiency of not less than rated at 99.97% percent on 0.3 micron particles or more efficient in collecting particle sizes 0.3 microns or greater in size.
- (17) HIGH-VOLUME, LOW-PRESSURE (HVLP)—SPRAY is a material
- 18) application system which is operated at air pressure of between 0.1 and 10 pounds per square inch gauge (psig).
- (18) NEW SOURCE means any source spraying primers or coatings containing chromium that is initially operated in the South Coast Air Quality Management District after March 4, 2005.
- (19) OPEN FACE ENCLOSURE SPRAY BOOTH means for the purpose of this rule a spray enclosure booth with an impermeable ceiling in which one side of the enclosure booth is not enclosed, and air flows through the open face horizontally. Open face spray booth enclosure does not include any enclosure spray booth configured for downdraft ventilation.
- (20) OVERSPRAY means is the fraction of coating sprayed that does not adhere to the intended surface.
- (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.
- (21) PRIMER is a coating applied to a part for purposes of corrosion prevention, protection from the environment, functional fluid resistance and/or adhesion of subsequent coatings, adhesives, or sealants.
- (22) RECEPTOR means any off-site location where persons may be exposed to emissions of hexavalent chromium from a source subject to this rule. Receptor locations include residential, commercial, and industrial land use areas, and other locations where sensitive populations may be located.

- ~~(23) RESIDENTIAL RECEPTOR means a single family dwelling or a multi-family dwelling, including but not limited to a duplex, condominium, townhome, apartment building, or other rental unit.~~
- ~~(24) RESPONSIBLE OFFICIAL means one of the following:~~
- ~~30)~~
- ~~(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:~~
- ~~(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or~~
- ~~(ii) The delegation of authority to such representative is approved in advance by the Executive Officer.~~
- ~~(B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.~~
- ~~(C) For a municipality, state, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the U.S. Environmental Protection Agency [U.S. EPA]).~~
- ~~(D) For sources (as defined in this rule) applying for or subject to a Title V permit: “responsible official” shall have the same meaning as defined in District’s Regulation XXX.~~
- ~~(25) SENSITIVE RECEPTOR includes schools, public and private~~
- ~~23) (kindergarten through grade 12), licensed daycare centers, hospitals, and convalescent homes. 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.

(32) SPRAY BOOTH means for the purpose of this rule any enclosure used to
24) 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.

~~(26) SPRAYING OPERATION or SPRAYING PROCESS, for the purpose of this rule, includes the equipment used to spray coatings containing chromium, and the spray enclosure in which it is sprayed. Spraying operation or spraying process includes all spraying of primers or coatings containing chromium, except for thermal spraying operations.~~

(27) THERMAL SPRAYING OPERATIONS means are one of several
25) processes in which metallic or nonmetallic surfacing materials are deposited in a molten or semi-molten condition on a substrate to form a coating. The surfacing material may originate in the form of powder, rod, or wire before it is heated, prior to spraying and deposition. Thermal spraying operations include: detonation gun spraying, flame spraying, high-velocity oxy-fuel spraying, plasma spraying, and twin-wire electric arc spraying.

(28) TOUCH UP AND REPAIR OPERATION means is that portion of the
26) coating operation that is the incidental application of coating used to cover minor coating imperfections in the coating finish or to achieve complete coverage after the main coating operation is conducted.

(29) TRANSFER EFFICIENCY means is the ratio of the weight or volume of
27) coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process, expressed as a percentage.

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

(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).
- (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.
- (e) Alternate Point Source Requirements for Chromate Spraying Operations With Compliance Plans or Health Risk Assessments Approved Before [Date of Rule Adoption]
- (1) Until the provisions in subparagraph (d)(1)(A) are met by the compliance date in subparagraph (d)(2)(B), an owner or operator of a facility with a chromate spraying operation with a Compliance Plan approved before [Date of Rule Adoption], or enforceable permit conditions resulting from a health risk assessment approved before [Date of Rule Adoption] that limit the cancer risk to 25 in a million if a facility is located more than 25 meters from a sensitive receptor or 10 in a million if a facility is located 25 meters or less from a sensitive receptor or located 100 meters or less from an existing school, shall continue to meet the conditions in the approved Compliance Plan or the enforceable permit conditions.

(2) Until the provisions in subparagraph (d)(1)(A) are met by the compliance date of subparagraph (d)(2)(B), an owner or operator of a facility with a chromate spraying operation with an approved Compliance Plan pursuant to paragraph (e)(1) shall:

- (A) Mount the Compliance Plan approval letter so as to be clearly visible in an accessible place within 8 meters (26 feet) of the spray booth identified in the approved Compliance Plan, or as otherwise approved in writing by the Executive Officer for equipment not subject to a facility permit under Regulation XX or Regulation XXX; or
- (B) Keep the Compliance Plan approval letter with the facility permit, or as otherwise approved in writing by the Executive Officer for equipment subject to a facility permit under Regulation XX or Regulation XXX.

(3) Annual Chromate Coatings Usage Report

Until the provisions in subparagraph (d)(1)(A) are met by the compliance date of subparagraph (d)(2)(B), an owner or operator of a facility with a chromate spraying operation complying with the conditions of an approved Compliance Plan pursuant to paragraph (e)(1) shall submit a report to the Executive Officer by September 1 each year, with the following information:

- (A) Facility name, address and contact person;
- (B) Annual usage of each coating containing hexavalent chromium for the previous fiscal year (July 1 through June 30), in gallons per year;
- (C) Chromate content of each coating used during the previous fiscal year (July 1 through June 30);
- (D) Permit number or application number of each spray booth used to spray chromate coatings; and
- (E) Usage of coatings containing chromium in each spray booth used to spray chromate coatings.

(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.
- (g) Inward Face Air Velocity Requirements
 - (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.

Table 1 – Spray Booth Inward Face Air Velocity Requirements

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

- (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.
- (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.
- (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).
- (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

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

- (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.
- (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.
- (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.

(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.

(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.

(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).
- (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.

Table 3 – Cleaning Frequencies

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

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

(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.

(2) Spray Booth Operations

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

- (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.
- (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) When removing protective floor, wall, or exhaust coverings within the spray booth

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

(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.

(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 ingress and egress of the spray booth closed while conducting dried chromate coating removal activities.

(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.

(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.
 - (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.
- (k) Pressure Drop Across Filter Media
 - (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.
 - (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.
 - (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

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

- (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.
- (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.

- (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 orxlsx) 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.
- (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.

(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.
- (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.

(m) Recordkeeping Requirements

(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.

(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).

(3) Monitoring Records

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

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

(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.

(o) Exemptions

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

(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.

(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.

(d) Requirements

~~Any person applying a coating containing chromium shall comply with all of the following requirements:~~

~~(1) Control System Capture Efficiency and Enclosure Standards~~

~~On and after July 1, 2007, a person shall not spray primers or coatings containing chromium unless such operations are conducted in a manner in which all overspray containing chromium is captured and directed to air pollution control equipment which is operating during spraying operations. Spray enclosures shall meet the following criteria:~~

~~(A) Exhaust from all spray enclosures shall be ventilated such that a continuous inward flow of air is maintained at all air openings during spraying operations; and~~

~~(B) The average inward face velocity of air through an open face enclosure a spray booth shall be a minimum of 100 feet per minute or other minimum velocity approved by the Executive Officer; and~~

~~(C) After spraying operations have ceased, the exhaust system shall be kept in operation to remove contaminated air within the spray enclosure for a minimum of:~~

- ~~(i) three air exchanges within the spray enclosure; or~~
- ~~(ii) five minutes.~~

~~(2) Transfer Efficiency~~

~~On and after January 1, 2006, a person shall not apply primers or coatings containing chromium at a facility at which such coatings are sprayed unless they 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) Flow Coater, Roll Coater, or Dip Coater; or~~

~~(B) Hand Application Methods; or~~

~~(C) High Volume, Low Pressure (HVLP); or~~

~~(D) Electrostatic Application; or~~

~~(E) Such other alternative application methods as are demonstrated to the Executive Officer, using District approved procedures, to be capable of achieving at least equivalent transfer efficiency to the method in subparagraph (d)(2)(C) and for which written approval of the Executive Officer has been obtained.~~

~~(3) Requirements for Facilities Spraying Primers or Coatings Containing Chromium~~

~~Before July 1, 2007, the owner or operator of a facility with a one or more new or existing sources subject to this rule shall comply with one of the following:~~

- ~~(A) Provided a facility does not emit hexavalent chromium except through sources subject to this rule, the owner or operator of a facility shall demonstrate in a Compliance Plan submitted pursuant to paragraph (d)(4) that emissions of hexavalent chromium from all spraying operations do not exceed the emission limits in clause (d)(3)(A)(i) or (d)(3)(A)(ii), as appropriate, as calculated after air pollution controls, where applicable, in accordance with the procedures in Appendices 1 and 2.:~~
 - ~~(i) 0.018 lbs per year, calculated from July 1 through June 30 of each year, or applicable emission limit adjusted for receptor distance and operating schedule in Table 2-2, if a facility is located more than 25 meters (82 ft) from a residential or sensitive receptor; or~~
 - ~~(ii) 0.007 lbs per year, calculated from July 1 through June 30 of each year, if a facility is located 25 meters (82 ft) or less from a residential or sensitive receptor, or located 100 meters (328 ft) or less from an existing school; or~~
- ~~(B) Ventilate each source at a facility to air pollution control equipment with a rated particulate filtration efficiency of 99.97% or higher, for particulate matter 0.3 microns and larger; or~~
- ~~(C) Demonstrate that facility wide emissions of all toxic air contaminants result in a cancer risk at all receptor locations through submittal of an approved health risk assessment that reflects representative operating conditions, or submittal of a Risk Reduction Plan developed pursuant to Rule 1402 that is fully implemented prior to July 1, 2007, or submittal of evidence of enforceable permit conditions that limit cancer risk to:~~
 - ~~(i) 25 in a million if a facility is located more than 25 meters (82 ft) from a residential or sensitive receptor; or~~
 - ~~(ii) 10 in a million if a facility is located 25 meters (82 ft) or less from a residential or sensitive receptor, or located 100 meters (328 ft) or less from an existing school.~~
- ~~(4) Compliance Plan~~
 - ~~(A) On or before January 1, 2006, the owner or operator of a source complying with the requirements of subparagraph (d)(3)(A), or an existing source complying with the requirements of subparagraph~~

~~(d)(3)(C) that does not have an approved health risk assessment as of January 1, 2006 shall submit a Compliance Plan to the Executive Officer subject to plan fees specified in Rule 306. The compliance plan shall include the following information:~~

- ~~(i) Facility name, address and contact person; and,~~
- ~~(ii) SCAQMD permit numbers or application numbers for all equipment subject to this rule; and,~~
- ~~(iii) Calculations for annual emissions of hexavalent chromium, for any twelve consecutive months of data during calendar years 2004 and 2005, except as approved by the Executive Officer. Emissions shall be calculated in accordance with the procedure in Appendix 1; and,~~
- ~~(iv) Material Safety Data Sheets (MSDS) for all products which list chromium, hexavalent chromium or a chromate, used in a source subject to this rule; and,~~
- ~~(v) Information on nearby receptors, including the distances to the nearest residence, commercial or industrial receptor, sensitive receptor and school, measured in accordance with the procedure in Appendix 2; and,~~
- ~~(vi) Information on spraying operations, including the number of gallons sprayed per year for each product containing chromium or chromate, except as approved by the Executive Officer, and type of spray method; and,~~
- ~~(vii) Information on emission release parameters, including height of stack for emissions released from a stack, or the dimensions and height of the building in which the spraying operation occurs, for emissions released inside of a building; and,~~
- ~~(viii) Average inward face velocity of the spray enclosure, as required by subparagraph (d)(1)(B), and the method and instrument used to measure the average inward face velocity; and,~~
- ~~(ix) Calculation of the length of time necessary to exhaust the volume of air required by clause (d)(1)(C)(i), if applicable; and,~~
- ~~(x) Source test results submitted pursuant to subdivision (g), if applicable; and,~~

- ~~(xi) Calculation of hexavalent chromium emissions from touch-up and repair operations under subdivision (h), if applicable.~~
- ~~(B) After review of the data submitted under subparagraph (d)(4)(A), the Executive Officer will notify facilities in writing whether the Compliance Plan is approved or disapproved. If a Compliance Plan is disapproved, the owner or operator shall resubmit the Compliance Plan, subject to plan fees specified in Rule 306, within 60 days after notification of disapproval of the Compliance Plan. The resubmitted Compliance Plan shall include the information required under subparagraph (d)(4)(A), and the owner or operator shall correct any deficiencies as identified in the Compliance Plan disapproval letter.~~
- ~~(C) After review of the data in a Compliance Plan submitted pursuant to subparagraph (d)(4)(B), the Executive Officer will notify facilities in writing whether the Compliance Plan is approved or disapproved.~~
- ~~(D) If a Compliance Plan submitted pursuant to subparagraph (d)(4)(C) is disapproved, the owner or operator shall comply with the requirements of subparagraph (d)(3)(B) within twelve months after notification that the Compliance Plan is disapproved.~~
- ~~(E) Posting of Compliance Plan Approval Letter
 - ~~(i) The Compliance Plan approval letter for equipment not subject to a facility permit under Regulation XXX or Regulation XX shall be mounted so as to be clearly visible in an accessible place within 8 meters (26 feet) of the spray booth enclosure identified in the Compliance Plan submitted under paragraph (d)(4), or as otherwise approved in writing by the Executive Officer.~~
 - ~~(ii) The Compliance Plan approval letter for equipment subject to a facility permit under Regulation XXX or Regulation XX shall be kept with the facility permit, or as otherwise approved in writing by the Executive Officer.~~~~
- ~~(F) The owner or operator of a facility shall comply with all conditions in an approved Compliance Plan.~~
- ~~(5) Application Submittal for New Control Equipment or Permit Modification
Not later than July 1, 2006, an owner or operator of a facility shall submit to the Executive Officer complete application(s) for new control equipment or~~

~~modification of existing control equipment, as specified in the Compliance Plan to meet the requirements specified in paragraph (d)(3).~~

~~(6) Notification of Compliance~~

~~On or before July 1, 2007, the owner or operator of a source not required to submit a compliance plan pursuant to paragraph (d)(4) shall submit a Notification of Compliance to the Executive Officer. The Notification of Compliance shall include the following information:~~

- ~~(A) The facility name, address and contact person; and~~
- ~~(B) A statement, signed by a responsible official that the facility is in compliance with the requirements of subparagraph (d)(3)(B) or (d)(3)(C), as appropriate; and,~~
- ~~(C) Evidence of compliance with subparagraph (d)(3)(B) or (d)(3)(C), including but not limited to:
 - ~~(i) Application or permit number of each source required under paragraph (d)(5); and,~~
 - ~~(ii) A copy of the approval to use source test results submitted pursuant to clause (d)(4)(A)(x), if applicable; and,~~
 - ~~(iii) The approval date and approved cancer risk of a health risk assessment demonstrating compliance with subparagraph (d)(3)(C), if applicable; and,~~
 - ~~(iv) Emissions or risk calculations from all sources subject to this rule emitting hexavalent chromium, if applicable.~~~~

~~(7) Housekeeping~~

~~Effective July 1, 2005, the owner or operator of a source subject to this rule shall conduct spraying and cleanup operations in a manner that minimizes fugitive emissions of atomized paint particles, including but not limited to the criteria in subparagraphs (d)(7)(A) and (d)(7)(B).~~

- ~~(A) When removing protective floor, wall or exhaust coverings within the spray booth enclosure, the operator shall:
 - ~~(i) Operate the ventilation system; and,~~
 - ~~(ii) Ensure that the door of a fully enclosed spray booth is closed; and,~~
 - ~~(iii) Encapsulate those materials contaminated with primers or coatings containing chromium that are intended to be~~~~

disposed of in a bag or container before removing from the spray booth.

- (B) The owner or operator of a source subject to this rule shall not operate the ventilation system when one or more filters, including HEPA filters are being removed or replaced.

(e) ~~Emissions Inventory and Health Risk Assessment~~

- (1) ~~The owner or operator of a facility complying with the requirements specified in subparagraph (d)(3)(C) that does not have an approved health risk assessment as of January 1, 2006, shall submit to Executive Officer not later than July 1, 2006, an emissions inventory and health risk assessment prepared pursuant to Rule 1402 for existing sources, and new sources where a permit application is submitted on or before January 1, 2006.~~
- (2) ~~The facility wide cancer risk of a health risk assessment submitted pursuant to paragraph (e)(1) shall be calculated in accordance with the Risk Assessment Procedures referenced in Rule 1402. Health risk from chromium spraying operations shall be presented:~~
 - (A) ~~With existing controls; and~~
 - (B) ~~After installation of proposed controls, if appropriate, using the default filter efficiency listed in Table 1-2, or an alternate filter efficiency approved by the Executive Officer, or source test results approved by the Executive Officer, if applicable.~~
- (3) ~~After review of all data required under paragraphs (d)(4), (e)(1) and (e)(2), the Executive Officer will notify facilities in writing if the health risk assessment submitted under paragraphs (e)(1) and (e)(2) is approved or disapproved, and the approved cancer risk of the health risk assessment. If the approved health risk assessment conducted pursuant to paragraph (e)(1) results in a cancer risk that exceeds the cancer risk levels specified in subparagraph (d)(3)(C) or the health risk assessment is disapproved the owner or operator of a facility shall:~~
 - (A) ~~submit an application for permit(s) to operate the control equipment required to meet subparagraph (d)(3)(B) within six months after the date of notification of the approved or disapproved health risk assessment; and~~

- ~~(B) comply with the applicable requirements of subparagraph (d)(3)(B) no later than 12 months after notification of the approved or disapproved health risk assessment.~~
 - ~~(4) The owner or operator of a facility complying with the requirements of subparagraph (d)(3)(C), shall comply with enforceable conditions to ensure that the facility complies with the risk requirements specified in clauses (d)(3)(C)(i) or (d)(3)(C)(ii).~~
- ~~(f) Addition of New Sources and Modification to Existing Sources~~
 - ~~(1) For permit applications submitted for new or modified existing sources after January 1, 2006 and on or before July 1, 2007, the owner or operator of facility shall demonstrate compliance with subparagraphs (d)(3)(A), (d)(3)(B), or (d)(3)(C) on or before July 1, 2007.~~
 - ~~(2) After July 1, 2007, the owner or operator of a facility that submits a permit application for a new or modified existing source subject to this rule shall demonstrate compliance with paragraph (d)(3) upon submittal of the permit application. Demonstration of compliance with paragraphs (d)(3) shall require submittal of a:
 - ~~(A) new compliance plan pursuant to paragraph (d)(3) if complying with the requirements of subparagraph (d)(3)(A); or~~
 - ~~(B) revised emissions inventory and health risk assessment prepared pursuant to Rule 1402, if complying with the requirements of subparagraph (d)(3)(C).~~~~
 - ~~(3) The owner or operator of a facility submitting a permit application for a new or modified existing source subject to this rule in which there is not an increase in emissions and in which there is not an increase in health risk at any receptor location shall not be required to comply with the requirements of paragraph (f)(2).~~
- ~~(g) Source Test Results~~

~~Results from a source test conducted for the purpose of demonstrating mass emissions from a new or existing source subject to this rule may be used as the basis for calculating facility emissions in order to demonstrate compliance with the emission limit in subparagraph (d)(3)(A) or to calculate emissions from spraying operations under clause (d)(4)(A)(iii). Unless otherwise approved in writing by the Executive Officer, the following criteria shall be met:~~

- (1) ~~The source test protocol and source test report are approved by the Executive Officer prior to January 1, 2006; and,~~
 - (2) ~~Both total chromium and hexavalent chromium were measured during the source test; and,~~
 - (3) ~~The air pollution control equipment configuration is identical to the configuration when the equipment was tested; and,~~
 - (4) ~~The operating parameters of all affected air pollution control equipment are identical or substantially similar to the source tested equipment; and,~~
 - (5) ~~The chromate-containing primer or coating sprayed during the source test has the highest percentage by weight of chromium of any primer or coating currently sprayed at the facility.~~
- (h) Exemptions
- (1) ~~The requirements of paragraph (d)(1) shall not apply to any touch up and repair operation spraying coatings containing chromium that is conducted outside of a spray enclosure, provided the touch up and repair operation is not performed outside of a building, and emissions and cancer risk from the touch up and repair operation are calculated and included in an approved Health Risk Assessment which meets the risk levels specified in subparagraph (d)(3)(C).~~
 - (2) ~~The requirements of paragraph (d)(1) and (d)(2) shall not apply to any touch up and repair operation spraying coatings containing chromium that is conducted outside of a spray enclosure, provided the touch up and repair operation is not performed outside of a building; and~~
 - (A) ~~Emissions from the touch up and repair operation are calculated in an approved Compliance Plan; and~~
 - (B) ~~Total facility wide emissions of hexavalent chromium from all spraying operations are demonstrated to be less than the level in subparagraph (d)(3)(A).~~
- (i) Compliance Test Methods
- (1) ~~Capture efficiency of the emissions collection system shall be determined by EPA Test Method 204—Criteria for and Verification of a Permanent or Temporary Total Enclosure, or any other method approved by the Executive Officer.~~

- ~~(2) Transfer efficiency of alternative coating application methods under subparagraph (d)(2)(E) shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989", or subsequent revisions.~~

- (j) **Recordkeeping Requirements**
 - ~~(1) Effective July 1, 2005, the owner or operator of a facility subject to this rule shall maintain records to demonstrate compliance with the applicable requirements in subdivisions (d) and (h). At a minimum, records shall include all of the following information:
 - ~~(A) Purchase records of primers or coatings containing chromium used for spray coating operations; and~~
 - ~~(B) Material Safety Data Sheets or Technical Data Sheets provided with the materials subject to the requirements of subparagraph (j)(1)(A) that indicate the weight percent of chromate(s) in the primer or coating, and the density of the primer or coating; and~~
 - ~~(C) Daily usage records for each primer or coating subject to this requirement, applied or used daily; and~~
 - ~~(D) Application method for each primer or coating used; and~~
 - ~~(E) Calculations conducted according to the procedures outlined in Appendix 1 and Appendix 2 that demonstrate annual mass emissions from each source subject to this rule, in pounds per year.~~~~
 - ~~(2) The owner or operator of a facility subject to this rule shall maintain records to demonstrate compliance with the monitoring requirements of subdivision (k). The following parameters shall be recorded:
 - ~~(A) The name of the person(s) performing the inspection and/or maintenance operations; and~~
 - ~~(B) The date, time and results of the inspection; and~~
 - ~~(C) The date, time and description of any maintenance activity or repairs resulting from the inspection; and~~
 - ~~(D) The pressure drop across the air pollution control system filter media. Pressure drop shall be recorded once per week, for any week in which spraying operations using coatings containing chromium are conducted on one or more days.~~~~
 - ~~(3) Records shall be kept in a format acceptable to the District for a minimum of three years and shall be made available to District personnel upon request.~~

~~(k) Monitoring Requirements~~

~~(1) Weekly Inspection of Air Pollution Control Equipment~~

~~The owner or operator of a facility subject to this rule shall perform a weekly visual inspection of the equipment and filter media subject to this rule for leaks, broken or torn filter media, and improperly installed filter media.~~

~~(2) Pressure Drop Across Air Pollution Control Equipment Filter Media~~

~~The owner or operator of a facility shall install a gauge to continuously monitor the pressure drop across the air pollution control equipment filter media. A gauge shall be located so that it can be easily visible and in clear sight of the operation or maintenance personnel. The pressure drop across the air pollution control equipment filter media 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.~~

~~(l) Reporting Requirements~~

~~Annual Chromium Coatings Usage Report~~

~~The owner or operator of a facility with a source subject to this rule complying with subparagraph (d)(3)(A) or subparagraph (d)(3)(C) shall submit a report to the Executive Officer by September 1 each year with the following information:~~

~~(1) Facility name, address and contact person; and,~~

~~(2) Annual usage of each coating or primer containing hexavalent chromium for the previous fiscal year (July 1 through June 30), in gallons per year; and,~~

~~(3) Chromate content of each coating or primer containing chromium used during the previous fiscal year (July 1 through June 30); and,~~

~~(4) Permit number or application number of each spray booth used to spray chromium; and,~~

~~(5) Usage of coatings or primers containing chromium in each spray booth used to spray chromium.~~

Appendix 1 – Inward Face Air Velocity Measurement Procedures

1. Applicability

This method applies to an owner or operator of a chromate spraying operation required to measure the inward face air velocity of a spray booth to demonstrate compliance with the requirements in subdivision (g).

2. Equipment – Anemometer

The anemometer shall be capable of measuring the inward face air velocity in feet per minute (fpm) within an appropriate velocity range with an accuracy of at least +/- 10% of full scale.

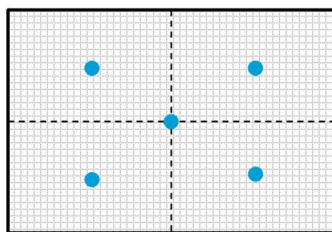
The anemometer shall be operated and calibrated per the manufacturer’s recommendations.

3. Test Conditions

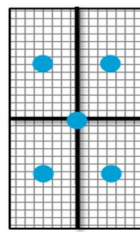
The inward face air velocity measurement test shall be conducted while the spray booth is in normal operation and under typical conditions representative of the facility’s chromate spraying operation.

4. Procedure

The inward face air velocity measurement shall be conducted over a minimum of a five-point grid pattern as shown in the below examples:



Multiple Filter Sections
in a Spray Booth



Open Face or Filter
Face

● = Measurement Point

For an enclosed spray booth, the inward face air velocity measurements shall be taken between 6 and 12 inches from the exhaust filters.

For an open faced spray booth, the inward face air velocity measurements shall be taken no more than one inch inside the plane of the open face.

5. Reporting

The following information shall be provided for each inward face air velocity measurement.

Anemometer Model:

Anemometer Calibration Factor:

Anemometer Calibration Date:

Inward Face Air Velocity Measurements:

Upper Left: fpm

Upper Right: fpm

Center: fpm

Lower Left: fpm

Lower Right: fpm

Measurements Performed by:

Measurement Date:

Appendix 2 – Rule 1469.1 Compliance Plans for Alternate Point Source Requirements for Chromate Spraying Operations Before [Date of Rule Adoption]

A Rule 1469.1 Compliance Plan that was submitted for chromate spraying operations to comply with the alternate point source requirements of subdivision (e) and approved in writing by the Executive Officer shall include:

- 1) Facility name, address and contact person; and,
- 2) South Coast AQMD permit numbers or application numbers for all equipment subject to this rule; and,
- 3) Calculations for annual emissions of hexavalent chromium, for any twelve consecutive months of data during calendar years 2004 and 2005, except as approved by the Executive Officer. Emissions shall be calculated in accordance with the procedure in Attachment 1; and,
- 4) Safety Data Sheets (SDS) for all products which list chromium, hexavalent chromium or a chromate, used in a source subject to this rule; and,
- 5) Information on nearby receptors, including the distances to the nearest residence, commercial or industrial receptor, sensitive receptor and school, measured in accordance with the procedure in Attachment 2; and,
- 6) Information on spraying operations, including the number of gallons sprayed per year for each product containing chromium or chromate, except as approved by the Executive Officer, and type of spray method; and,
- 7) Information on emission release parameters, including height of stack for emissions released from a stack, or the dimensions and height of the building in which the spraying operation occurs, for emissions released inside of a building; and,
- 8) Average inward face velocity of the spray booth, as required by paragraph (f)(1), and the method and instrument used to measure the average inward face velocity; and,
- 9) Calculation of the length of time necessary to exhaust the volume of air required by subparagraph (j)(1)(C), if applicable; and,
- 10) Source test results submitted, if applicable; and,
- 11) Calculation of hexavalent chromium emissions from touch up and repair operations under subparagraphs s(o)(2) and (o)(3), if applicable.

Appendix Attachment 1 - Emission Calculation Method

This ~~Appendix Attachment~~ establishes the emission calculation method ~~that must be used~~ in accordance with ~~subdivision (e) subparagraph (d)(3)(A)~~ of Rule 1469.1, ~~except for facility operators submitting source test results under subdivision (g)~~, or an alternative procedure approved by the Executive Officer.

Emissions of hexavalent chromium from spraying operations must be calculated in accordance with the procedures specified.

Step 1: Identify all primers or coatings that contain chromium or chromate. Examples of chromates commonly formulated in coatings include strontium chromate, zinc chromate, lead chromate, calcium chromate and barium chromate.

Step 2: Determine the percentage by weight of chromate in each primer or coating. This data can be obtained from the Material Safety Data Sheet (MSDS) for the product, or by contacting the manufacturer. Chromate percentage may be given as a single value (ex: SrCrO₄ – 15%/wt), or it may be given as a range (ex: Zinc Chromate – 12%/wt - 22%/wt). Use the highest value to calculate emissions if chromate content in a primer or coating is given as a range.

Step 3: Determine the fraction of hexavalent chromium in the chromate. This is the molecular weight of chromium in the chromate, divided by the molecular weight of the entire chromate. All chromium in the chromate is assumed to be hexavalent. The hexavalent fraction of common chromates used in primers and coatings is given in Table ~~1A~~-1.

Table ~~1A~~-1 - Hexavalent Fraction of Common Chromate Primers

Chromate	Molecular Formula	Hexavalent Fraction
Barium Chromate	BaCrO ₄	0.205
Calcium Chromate	CaCrO ₄	0.333
Lead Chromate	PbCrO ₄	0.161
Strontium Chromate	SrCrO ₄	0.255
Zinc Chromate	ZnCrO ₄ .7HOH	0.169

Step 4: Determine the density for each primer or coating used during the year. This data may be obtained from the Material Safety Data Sheet (MSDS) or the Technical Data Sheet (TDS) supplied with each primer or coating. Density data may be given in bulk density (ex: density = 9.2 lbs/gallon) or as specific gravity (ex: s.g. = 1.15). Multiply specific gravity by 8.34 to obtain bulk density.

Step 5: Compile the annual usage for each primer or coating sprayed during the year that contains chromium or chromate. Usage is the number of gallons of each primer or coating.

Step 6: Determine the control efficiency of the filters in your air pollution control (APC) system. A source test approved by the Executive Officer may be used, if both inlet and outlet concentrations of particulate matter were measured during the source test. Use the default control efficiencies in Table 1A-2 if no source test data are available. If more than one type of filter is used in series to control emissions (ex: blanket-type filter followed by two-stage NESHAP-compliant filters), only consider the highest rated control efficiency.

Table 1A-2 - Default Control Efficiencies

Control Equipment	Control Efficiency
Conventional Spray Booth Filters	90%
Water-wash Booth	
Two-stage Aerospace NESHAP-compliant Filters	
Pocket-type Filters	
Accordion Filters	
Three-stage Aerospace NESHAP-compliant Filters	95%
Cartridge Filters	99%
Bag House	
High Efficiency Particulate Arrestor (HEPA) Filters (individually dioctyl phthalate (DOP) or equivalent tested)	99.97%

Note: If a filter manufacturer guarantees a control efficiency higher than the default values in Table 1A-2 for the type of filter media in use (for particulate sizes greater than 0.3 microns), submit the manufacturer’s test data with your Compliance Plan for consideration. The actual control efficiency used to evaluate your Compliance Plan is up to the discretion of The Executive Officer, based on the data presented.

Step 7: Calculate hexavalent chromium emissions, after existing control equipment, for each primer or coating containing chromium or chromate used during the year.

$$\text{Emissions (lbs/yr)} = [\text{Usage (gallons/yr)}] * [\text{Coating Density (lbs/gal)}] * [\text{Chromate Content (\%/wt)}] *$$

$$\begin{aligned} & [\text{Hexavalent Fraction of Chromate}] * \\ & [1 - \text{Transfer Efficiency (\%)}] * \\ & [1 - \text{Filter Efficiency (\%)}] \end{aligned}$$

Use 65% transfer efficiency unless another transfer efficiency has been approved by the Executive Officer. Provide a separate calculation for each primer or coating that contains chromate used at your facility during the calendar year.

Step 8: Sum emissions from each primer or coating sprayed at your facility during the year that has chromium or chromate.

Appendix Attachment 2 – Distance Adjusted Annual Emission Levels For Facilities Located More Than 25 Meters (82 ft) from a Residence or Sensitive Receptor. Measuring Distance to a Residence or Sensitive Receptor

Facilities complying with subdivision (e) that are required to provide information on nearby receptors, including the distances to the nearest residence, commercial or industrial receptor, sensitive receptor and school, shall use Table 2-1A-3 for distance measurement criteria. ~~the facility-wide emission limit in clause (d)(3)(A) may adjust the annual emission limit, according to actual receptor distance. Use the following tables to determine the appropriate annual emissions for compliance with the limits in subparagraph (e)(31)(A), according to the distance to the nearest receptor. The nearest receptor includes commercial, industrial, sensitive and residential receptors. Use Table 2-1 for the distance measurement criteria, and use Table 2-2 to look up the emission limit for the nearest commercial/industrial receptor, and for the nearest sensitive/residential receptor. The allowable emission limit for your facility is the lower of the two values.~~

Receptor distance is measured as follows:

**Table 2-4A-3
Measuring Receptor Distance**

Source Type	Measure From:	Measure To:
Single Stack Venting Chrome-Spraying Process(es)	Stack	Property Line of Nearest Receptor
Multiple Stacks Venting Chrome-Spraying Process(es)	Centroid of Stacks	Property Line of Nearest Receptor
Emissions Released Inside of Building	Center of Building	Property Line of Nearest Receptor

**Table 2-2
Distance-Adjusted Hexavalent Chromium Emissions For Equipment
Subject to Subparagraph (d)(3)(A)**

Distance—to Nearest Receptor	Meters	>25	30	35	40	45	50	55	60
	Feet	>82	98	115	131	148	164	180	197
Spray—Booth Operating Schedule	Nearest Receptor Type	Distance-adjusted Annual Emission Limit (lbs/yr)							
12 Hrs/Day or Less	Residential or Sensitive	0.018	0.019	0.02	0.022	0.024	0.027	0.029	0.032
More Than 12 Hrs/Day	Residential or Sensitive	0.032	0.032	0.032	0.032	0.032	0.032	0.034	0.036
12 Hrs/Day or Less	Commercial or Industrial	0.021	0.023	0.025	0.027	0.029	0.032	0.035	0.039
More Than 12 Hrs/Day	Commercial or Industrial	0.038	0.038	0.038	0.038	0.038	0.038	0.041	0.043

Distance—to Nearest Receptor	Meters	65	70	75	80	85	90	95	100
	Feet	213	230	246	262	279	295	312	328
Spray—Booth Operating Schedule	Nearest Receptor Type	Distance-adjusted Annual Emission Limit (lbs/yr)							
12 Hrs/Day or Less	Residential or Sensitive	0.037	0.042	0.049	0.053	0.058	0.064	0.071	0.081
More Than 12 Hrs/Day	Residential or Sensitive	0.039	0.042	0.045	0.048	0.051	0.055	0.059	0.064
12 Hrs/Day or Less	Commercial or Industrial	0.044	0.05	0.059	0.064	0.07	0.077	0.086	0.097
More Than 12 Hrs/Day	Commercial or Industrial	0.047	0.05	0.055	0.058	0.062	0.066	0.071	0.077