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Unofficial electronic version of the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations

Unofficial Electronic Version

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While reasonable steps have been taken to make this unofficial version accurate, the officially published CCR takes precedence if there are any discrepancies.

Official Legal Edition

The official legal edition of title 17, CCR, sections 95480-95503 is available at the OAL website.

Online California Code of Regulation

- "Title 17. Public Health"
  - "Division 3. Air Resources"
    - "Chapter 1. Air Resources Board"
      - "Subchapter 7.5 Airborne Toxic Control Measure"

Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations

Amend sections 93102, 93102.1, 93102.2, 93102.3, 93102.4, 93102.5, 93102.6, 93102.7, 93102.8, 93102.9, 93102.10, 93102.11, 93102.12, 93102.13, 93102.14, 93102.15, 93102.16, title 17, division 3, chapter 1, subchapter 7.5, California Code of Regulations, to read as follows:

§ 93102. Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations.

The Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations (ATCM) is contained in sections 93102 through 93102.16.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.1. Applicability.

(a) This ATCM shall apply to:

(1) The Owner or Operator of any Facility performing Chrome Plating.

(2) Any person who sells, supplies, offers for sale, uses, or manufactures for sale in California a Chrome Plating Kit.

(b) *Title V Permits.* The Owner or Operator of a Major Source subject to the requirements of this section is required to obtain a title V permit (See 42 United States Code, section 7401, et seq.) from the District.

(c) *Severability.* Each part of this ATCM shall be deemed severable, and in the event that any part of this ATCM is held to be invalid, the remainder of this ATCM shall continue in full force and effect.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.2. Exemption.

The requirements of sections 93102.4 and 93102.11 do not apply during periods of equipment Breakdown, provided the provisions of the District's Breakdown rules are met (see Appendix 5). The burden of proving that these provisions are met and that the claimed Breakdown falls under the definition of Breakdown provided in section 93102.3 is placed upon the Person seeking to utilize this exemption.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.3. Definitions.

(a) For the purposes of this ATCM, the following definitions shall apply:

(1) *"Add-on Air Pollution Control Device"* means equipment installed in the ventilation system of Tier II Tank(s), Tier III Tank(s), or other chromium containing Tank(s) for the purposes of collecting and containing chromium emissions from the Tank(s). Add-on Air Pollution Control Devices include, but are not limited to HEPA Filters, Composite Mesh-Pad Systems, and Packed Bed Scrubbers.

(2) "*Airlock System*" means a transitional space that has two doors that separate a Building Enclosure from the Exterior. The two doors shall be interlocked in series to avoid being opened at the same time. The transitional space shall be ventilated with filtered supply air that is returned into the Building Enclosure.

(3) *"Air Pollution Control Technique"* means any method, such as an Add-on Air Pollution Control Device, Mechanical Fume Suppressant, or a Chemical Fume Suppressant, that is used to reduce chromium emissions from Chrome Plating Tanks.

(4) *"Ampere-Hours*" or "*Amp-Hr"* means the electrical current applied to a Chrome Plating Tank (amperes) over a period of time (hours).

(5) *"Annual Permitted Ampere-Hours"* means the maximum allowable Chrome Plating rectifier production in Ampere-Hours, on an annual basis as specified in the District's Permit to Operate for the Facility.

(6) *"Area Source"* means any stationary Source of hazardous air pollutants that is not a Major Source.

(7) *"Approved Cleaning Method"* means cleaning using one of the methods listed in subsections (A) through (E). The District may approve of the use of an alternative cleaning method that is as effective as one of the methods listed in subsections (A) through (E).

(A) A wet mop;

(B) Damp cloth;

(C) Wet wash;

(D) Low Pressure Spray Nozzle; or

(E) HEPA Vacuum.

(8) *"Associated Process Tank"* means any Tank in the process line of a Tier I, Tier II, or Tier III Hexavalent Chromium Tank that is not a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. Associated Process Tanks may contain Hexavalent Chromium at levels below those of Tier I Tanks.

(9) *"Base Material"* means the part that is dipped in the Chrome Plating Tank for the purposes of Chrome Plating.

(10) *"Barrier"* means a physical divider that can be fixed or portable (e.g. a wall, welding screen, plastic strip curtains).

(11) *"Bath Component"* means the chemical composition or trade or brand name of each chemical component in the Chrome Plating Bath.

(12) *"Breach"* means any opening in a Building Enclosure that allows air to escape to the Exterior and is not a Building Enclosure Opening.

(13) *"Breakdown"* means an unforeseeable impairment of air pollution control equipment or related operating equipment which causes a violation of any Emission Limitation or restriction prescribed by a District's rule or by State law and which:

(A) Is not the result of neglect or disregard of any air pollution control law, rule, or regulation;

(B) Is not intentional or the result of negligence, or improper maintenance;

(C) Is not a recurrent Breakdown of the same equipment; and,

(D) Does not constitute a nuisance pursuant to section 41700 of the California Health and Safety Code.

(14) *"Building Enclosure"* means a permanent building or physical structure, or portion of a building, enclosed with a floor, walls, and a ceiling or roof that is enclosed such that airflow is limited from the enclosure to the Exterior. This can include the enclosed portion of the building itself or an enclosure within a building that is enclosed such that airflow is limited from the enclosure to the rest of the building. The Building Enclosure may have limited Building Enclosure Openings to allow access for people, vehicles, equipment, or parts.

(15) *"Building Enclosure Envelope"* means the walls, ceiling, and floor that make up a Building Enclosure.

(16) *"Building Enclosure Opening"* means any opening that is designed to be part of a Building Enclosure, such as doorways, bay doors, vents, roof openings, and windows. The term excludes openings that are designed to accommodate and generally conform to an exhaust stack or duct for a Building Enclosure.

(17) *"CARB"* means the California Air Resources Board.

(18) *"Chemical Fume Suppressant"* means any chemical agent that reduces or suppresses fumes or mists at the surface of a Chrome Plating Bath; another term for fume suppressant is mist suppressant.

(19) *"Chrome Plating"* means Decorative Chrome Plating, Hard Chrome Plating, and Chromic Acid Anodizing.

(20) *"Chrome Plating Bath*" or *"Bath"* or means the electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purpose of

electrodeposition of metal out of solution onto a Base Material or for oxidizing the Base Material during the Chrome Plating process.

(21) *"Chrome Plating Kit"* means a kit of materials that allows individual consumers to perform Chrome Plating. The kit typically includes a Bath, a receptacle where the Base Material can be placed in the Bath, and an anode.

(22) *"Chrome Plating Operation"* means the process of performing Chrome Plating.

(23) *"Chrome Plating Tank"* means the Tier III Tank in which Chrome Plating occurs, along with the accompanying internal and external Tank components needed for Chrome Plating. These Tank components include, but are not limited to, rectifiers fitted with controls to allow for voltage adjustments, heat exchanger equipment, and circulation pumps.

(24) *"Chromic Acid"* means the common name under which chromium trioxide (CrO_3) is sold. Chromic Acid, which typically is used in powder or flake form, is added to the Bath to provide Hexavalent Chromium to the solution.

(25) *"Chromic Acid Anodizing"* means the electrolytic process by which an oxide layer is produced on the surface of a Base Material for functional purposes (e.g. corrosion resistance or electrical insulation) using a Chromic Acid solution. In Chromic Acid Anodizing, the part to be anodized acts as the anode in the electrical circuit, and the Chromic Acid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.

(26) *"Chromic Acid Mist"* means fine droplets of Chromic Acid formed during Chrome Plating Operations and emitted from the Chrome Plating Tank.

(27) *"Composite Mesh-Pad System" or "CMP"* means an Add-on Air Pollution Control Device typically consisting of several mesh-pad stages to remove particles.

(28) *"Continuous Passivation"* means a Functional Chrome Plating process by which a Base Material is passed continuously through an electrolytic Hexavalent Chromium solution as part of an automated process for the purpose of creating a chemically inert surface on the Base Material.

(29) *"Daily"* means at least once every calendar day that the Facility is operating.

(30) *"Decorative Chrome Plating"* means the process by which a thin layer of chromium (typically 0.003 to 2.5 micrometers) is electrodeposited on a Base Material to provide a bright surface with wear and tarnish resistance. In this process, the Base Material serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (Amp/m^2) for total plating times ranging between 0.5 to 5 minutes.

(31) "*District*" means the local air pollution control or air quality management district.

(32) *"Dragout"* means fluid containing Hexavalent Chromium that adheres to parts when they are removed from a Tank.

(33) *"Emission Limitation"* means:

(A) For Trivalent Chromium Plating, the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm).

(B) For Hexavalent Chromium Plating, the allowable Surface Tension expressed in dynes per centimeter (dynes/cm) or the milligrams of Hexavalent Chromium per Ampere-Hour (mg/Amp-Hr) of electrical charge applied to the Chrome Plating Tank, or the concentration of Hexavalent Chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm).

(34) *"Enclosed Hexavalent Chromium Plating Tank"* means a Chrome Plating Tank using a Hexavalent Chromium solution that is equipped with an enclosing hood and ventilated as specified by the manufacturer.

(35) *"Enclosed Storage Area"* means any space or structure used to contain material that prevents its contents from being emitted into the atmosphere. This includes cabinets, closets, or sheds designated for storage.

(36) "*Enforceable*" means emission reductions that are Real, Quantifiable, and Verifiable such that CARB or the District has authority to hold a particular party or parties liable and to take enforcement action if the emission reductions claimed are not achieved.

(37) "*Executive Officer*" means the Executive Officer of CARB, or his or her delegate.

(38) "*Existing Facility*" means a Facility that is in operation before January 1, 2024.

(39) "*Exterior*" means any area outside of the Building Enclosure.

(40) "*Facility*" means the Major or Area Source at which Chrome Plating is performed, including any Source or group of Sources or other contaminant-emitting activities which are located on one or more contiguous properties within the District's jurisdiction, 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 by Persons under common control), or an outer continental shelf (OCS) source as determined in 40 Code of Federal Regulations section 55.2, as last amended September 2, 1997.

(41) "*Fiber-Bed Mist Eliminator*" means an Add-on Air Pollution Control Device that removes particles from a gas stream through the mechanisms of inertial impaction and Brownian diffusion.

(42) "*Foam Blanket*" means the type of Chemical Fume Suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution. A Foam Blanket does not lower Surface Tension of a liquid.

(43) "*Fresh Water*" means water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.

(44) "*Fugitive Dust*" means any solid particulate matter that may contain Hexavalent Chromium that has the potential to become airborne by natural or man-made activities. Fugitive Dust does not include particulate matter emitted from an exhaust stack.

(45) "*Fugitive Emissions*" means any emissions of Hexavalent Chromium that escape to the atmosphere through windows, doors, vents, or other openings, but not through an Add-on Air Pollution Control Device, including Fugitive Dust.

(46) "*Functional Chrome Plating*" means Hard Chrome Plating and Chromic Acid Anodizing.

(47) "*Hard Chrome Plating*" means a process by which a thick layer of chromium (typically greater than 1.0 micrometers) is electrodeposited on a Base Material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the Base Material serves as the

cathode in the electrolytic cell and the solution serves as the electrolyte. The Hard Chrome Plating process is performed at current densities typically ranging from 1,600 to 6,500 Amp/m^2 for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness. This definition also includes Continuous Passivation.

(48) *"Hexavalent Chromium"* means the form of chromium in a valence state of +6.

(49) *"Hexavalent Chromium Containing Tank"* means a Tier I Tank, a Tier II Tank, or a Tier III Tank.

(50) *"Hexavalent Chromium Plating"* means the process used for electrodeposition of a layer of chromium onto a Base Material using a Hexavalent Chromium solution.

(51) *"High Efficiency Particulate Arrestor (HEPA) Filter"* means filter(s) rated at 99.97 percent or more efficient in collecting particle sizes 0.3 micrometers.

(52) *"HEPA Vacuum"* means a vacuum that is both designed for the use of and fitted with a HEPA Filter.

(53) *"Hourly"* means at least once every hour the Facility is operating.

(54) *"Initial Start-Up"* means the first time a New Facility begins production, the first time a Chrome Plating Tank that has undergone a Modification begins operating at a Modified Facility, or the first time a Trivalent Chromium Plating Tank begins operation. Initial Start-Up does not include operation solely for testing of equipment or subsequent start-up of permit units following malfunction or shutdown.

(55) *"Leak"* means the release of chromium emissions from any opening in the Tank or the piping or ductwork associated with the Tank or any component associated with the Add-on Air Pollution Control Device.

(56) *"Low Pressure Spray Nozzle"* means a water spray nozzle capable of regulating water pressure such that it does not exceed 35 pounds per square inch.

(57) *"Major Source"* means any stationary Source, or group of stationary Sources located within a contiguous area and under common control, that emits, or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant, or 25 tons per year or more of any combination of hazardous air pollutants.

(58) *"Mechanical Fume Suppressant"* means any device, including but not limited to Polyballs, that reduces fumes or mist at the surfaces of a Chrome Plating Bath by direct contact with the surface of the Bath.

(59) *"Modification"* means either:

(A) Any physical change in, change in method of operation of, or addition to an existing permit unit that requires an application for an authority to construct and/or operate and results in an increase in Hexavalent Chromium emissions. Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:

1. An increase in the hours of operation;

2. A change in ownership of a Facility; or

3. An increase in the annual Ampere-Hours, unless such increase will cause a Facility to be subject to a different requirement in Table 93102.4 of section 93102.4.

(B) The addition of any new Chrome Plating Tank at an Existing Facility which increases Hexavalent Chromium emissions; or

(C) The fixed capital cost of the replacement of components exceed 50 percent of the fixed capital cost that would be required to construct a comparable New Facility.

(D) Construction of Building Enclosures required by section 93102.4(d) are not considered Modifications for the purposes of this ATCM.

(E) Changes related to the conversion from Hexavalent Chromium to alternative technology are not considered Modifications for the purposes of this ATCM.

(60) *"Modified Facility"* means any Facility which has undergone a Modification on or after January 1, 2024.

(61) *"Monthly"* means at least once every calendar month that the Facility is operating.

(62) *"New Facility"* means any Facility that begins initial operations on or after January 1, 2024. "New Facility" does not include the installation of a new Chrome Plating Tank at an Existing Facility or the Modification of an Existing Facility.

(63) *"Operating Day"* means any day during which Chrome Plating Operations take place at a Facility.

(64) *"Owner or Operator"* means a Person who is the Owner or the Operator of a Facility.

(65) *"Packed-Bed Scrubber" or "PBS"* means an Add-on Air Pollution Control Device consisting of a single or double packed-bed that contains packing media on which the Chromic Acid droplets impinge.

(66) *"Person"* shall have the same meaning as defined in Health and Safety Code section 39047.

(67) *"PFAS"* means per and polyfluoroalkyl substances.

(68) *"PFAS Compound"* means a compound that contains any PFAS.

(69) *"Polyballs"* means a Mechanical Fume Suppressant that uses a layer of balls made of plastic or other material to cover a Hexavalent Chromium Containing Tank to reduce the emission of fumes.

(70) *"Protected Opening Method"* means any of the methods listed below that restricts air from escaping the Building Enclosure. The District may allow for the use of an alternative method that limits air flow to the same extent as would be limited from one of the mechanisms listed in subsections (A)–(D).

(A) Door that automatically closes;

(B) Overlapping plastic strip curtains that cover the entire opening;

(C) Vestibule; or

(D) Airlock System;

(71) "*Quantifiable*" means reductions in emissions that can be accurately measured and calculated, in a reliable and replicable manner using a methodology specified by CARB or the District to be applicable.

(72) *"Quarterly"* means once per calendar quarter. Calendar quarters are January through March, April through June, July through September, and October through December.

(73) "*Real*" means reductions in emissions resulting from a demonstrable action or set of actions.

(74) *"Responsible Official"* means one of the following:

(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:

1. The facilities employ more than 250 Persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

2. The delegation of authority to such representative is approved in advance by the District.

(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. EPA).

(D) For Sources (as defined in this part) applying for or subject to a title V permit: "Responsible Official" shall have the same meaning as defined in 40 Code of Federal Regulations Part 70 or federal title V regulations in this chapter (42 United States Code, section 7401, et seq.), whichever is applicable.

(75) *"School"* means any public or private school for kindergarten through grade 12 or school readiness program used by more than 12 children, including any building or structure, playground, athletic field, or other area of the property. A school includes juvenile detention facilities with classrooms and learning and development programs funded by the U.S. Department of Education or state or local government, including pre-schools, Early Head Start, Head Start, First Five, and child development centers.

(76) *"Sensitive Receptor"* means any residence including private homes, condominiums, apartments, and living quarters; education resources such as 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.

(77) *"Site-Specific Risk Analysis"* means a health risk assessment specific

to a Chrome Plating Operation which presents the potential carcinogenic and noncarcinogenic health impacts to individuals and populations according to the District's procedures.

(78) *"Source"* means any Chrome Plating Operation and any equipment or materials associated with the selected Air Pollution Control Technique.

(79) *"Source Test"* means an emissions test of chromium containing tank(s) conducted for the purpose of demonstrating compliance with an applicable Emission Limitation in accordance with the requirements of section 93102.7.

(80) *"Stalagmometer"* means an instrument used to measure the Surface Tension of a solution by determining the mass of a drop of liquid by weighing a known number of drops or by counting the number of drops obtained from a given volume of liquid.

(81) *"Surface Tension*" means the property, due to molecular forces, that exists in the surface film of all liquids and tends to prevent liquid from spreading.

(82) *"Tank"* means the structure or receptacle containing the Chrome Plating Bath or other liquid solution used in a Tier I Tank, Tier II Tank, Tier III Tank, or Associated Process Tank.

(83) *"Tank Operation"* means the time in which current and/or voltage is being applied to a Chrome Plating Tank.

(84) *"Tank Process Area"* means the area in the Facility within 15 feet of any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s), or to the nearest wall of a Building Enclosure, whichever is closer.

(85) *"Tensiometer"* means an instrument used to measure the Surface Tension of a solution by determining the amount of force needed to pull a ring from the liquid surface. The amount of force is proportional to the Surface Tension.

(86) *"Tier I Hexavalent Chromium Containing Tank"* or "*Tier I Tank"* means a Tank containing a Hexavalent Chromium concentration of 1,000 parts per million (ppm) or greater and that is not a Tier II or Tier III Hexavalent Chromium Tank.

(87) *"Tier II Hexavalent Chromium Containing Tank"* or *"Tier II Tank"* means a Tank that is operated within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 9 and that is not a Tier III Hexavalent Chromium Tank.

(88) *"Tier III Hexavalent Chromium Containing Tank"* or *"Tier III Tank"* means a Tank that:

(A) Is operated within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 9;

(B) Contains a Hexavalent Chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or

(C) Is a Chrome Plating Tank that contains Hexavalent Chromium.

(89) *"Trivalent Chromium"* means the form of chromium in a valence state of +3.

(90) *"Trivalent Chromium Plating"* means the process used for electrodeposition of a layer of chromium onto a Base Material using a Trivalent Chromium solution instead of a Hexavalent Chromium solution.

(91) "*Verifiable*" means claims of emission reductions that can be accurately, truthfully documented, and transparent such that CARB or the District can objectively review and reproduce such claims.

(92) *"Vestibule"* means an antechamber, hall, or room that connects a door leading to the Exterior with a door leading to the rest of the building.

(93) *"Weekly"* means at least once every seven calendar days that the Facility is operating.

(94) *"Wetting Agent"* means the type of Chemical Fume Suppressant that reduces the Surface Tension of a liquid.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.4. Requirements for Chrome Plating Facilities that Use Hexavalent Chromium.

This section sets forth requirements that apply to all Facilities using Hexavalent Chromium for Chrome Plating Operations.

(a) No Person shall construct or operate a New Facility that uses Hexavalent Chromium for the purposes of Chrome Plating after January 1, 2024.

(b) *Phase out that applies to all Existing Facilities that use Hexavalent Chromium.*

(1) *Decorative Chrome Plating.* No Person shall use any Hexavalent Chromium for the purposes of Decorative Chrome Plating in California after January 1, 2027, unless they elect to comply with the alternative phase out pathway requirements set forth in subsection (b)(1)(A).

(A) Facilities that elect to continue using Hexavalent Chromium for the purposes of Decorative Chrome Plating after January 1, 2027, shall submit a notification to the District as required by Appendix 1 by January 1, 2025, indicating that they are electing to pursue the alternative phase out pathway. Facilities that elect to comply with the alternative phase out pathway must comply with the Building Enclosure requirements set forth in subsection (d) starting on January 1, 2026, and shall not use any Hexavalent Chromium for the purposes of Decorative Chrome Plating in California after January 1, 2030.

(2) The District may grant an extension of up to one year to subsection (b)(1) or (b)(1)(A) if the District determines that the Facility needs more time to procure or install equipment or to complete the permitting or construction necessary to transition to technology that does not use Hexavalent Chromium.

(A) If the Owner or Operator elects to request an extension to the Decorative Chrome Plating phase out, they shall submit a request to the District as required by Appendix 1 by October 1, 2026, or by October 1, 2029, for Facilities that elect to comply with the alternative phase out pathway in subsection (b)(1)(A). The request shall demonstrate that the extension is necessary for one or more of the following reasons that are beyond the Owner or Operator's control:

1. The procurement of equipment necessary to replace Hexavalent Chromium is delayed.

2. The installation of equipment necessary to replace Hexavalent Chromium is delayed.

3. The District has not issued the authority to construct in time for the Facility to complete construction necessary to transition to technology that does not use Hexavalent Chromium by January 1, 2027, or by January 1, 2030, for Facilities that elect to comply with the alternative phase out pathway pursuant to subsection (b)(1)(A).

4. The Facility needs more time to complete construction necessary to transition to technology that does not use Hexavalent Chromium.

(B) The request shall include the following, as applicable:

1. A request submitted pursuant to subsection (b)(2)(A)1. shall provide a justification explaining what equipment is delayed, why that equipment is necessary to replace Hexavalent Chromium, the reason for the delay, and the anticipated length of the delay. The request shall also include documentation demonstrating this information, such as a statement from the shipper or equipment supplier explaining the delay.

2. A request submitted pursuant to subsection (b)(2)(A)2. shall provide a justification explaining what equipment is delayed, why that equipment is necessary to replace Hexavalent Chromium, why the installation of that equipment is delayed, and the anticipated length of the delay. The request shall also include documentation substantiating the delay, such as a statement from the Facility regarding the inability to hire a suitable contractor or a statement from the contractor explaining why work was not able to be completed as scheduled.

3. A request submitted pursuant to subsection (b)(2)(A)3. shall provide documentation demonstrating that the Owner or Operator applied for an authority to construct for equipment necessary to convert to alternative(s) to Hexavalent Chromium to the District and that the application was deemed complete by the District prior to January 1, 2026, or prior to January 1, 2029, for Facilities that elect to comply with the alternative phase out pathway pursuant to subsection (b)(1)(A).

4. A request submitted pursuant to subsection (b)(2)(A)4. shall explain why the Facility needs more time to complete construction necessary to transition to technology that does not use Hexavalent Chromium and the anticipated timeline for completing the construction. The request shall also include documentation that substantiates these claims.

(C) If the Owner or Operator submits a request that does not contain the information and documentation required by

subsection (b)(2)(B), the District shall issue a notice of deficiency to the Owner or Operator in writing identifying the deficiency within 30 calendar days of the submittal of the request. The Owner or Operator shall submit a request as required by Appendix 1 that corrects these deficiencies within 30 calendar days of the issuance of the notice of deficiency or its request will be denied.

(D) The District shall approve the request if all the requirements listed in subsections 1. through 4. below are met. The District shall issue a notice of approval to the Owner or Operator in writing within 30 calendar days of the submittal of a complete request. The notice of approval shall specify the date when the extension expires, which can be up to one year after January 1, 2027, or January 1, 2030, for Facilities that elect to comply with the alternative phase out pathway pursuant to subsection (b)(1)(A). The District shall base the duration of the extension granted by the approval on the additional time the request demonstrates is needed to complete the transition.

1. The request was submitted as required by subsection (b)(2)(A);

2. The request contains the information and documentation required by subsection (b)(2)(B);

3. The request demonstrates that the extension requested is necessary for one of the reasons listed in subsection (b)(2)(A)1. through 4.; and

4. The request demonstrates that the delay is for reasons that are beyond the Owner or Operator's control.

(E) The District shall issue a notice of denial to the Owner or Operator in writing within 30 calendar days of the submittal of a complete request if any of the following apply:

1. The request was not submitted as required by subsection (b)(2)(A).

2. The request does not demonstrate that additional time is necessary for one of the reasons listed in subsection (b)(2)(A)1. through 4.

3. The request does not demonstrate that the delay is for reasons that are beyond the Owner or Operator's control.

(3) *Functional Chrome Plating.* No Person shall use any Hexavalent Chromium for the purposes of Functional Chrome Plating in California after January 1, 2039.

(A) *Technology Reviews.* CARB shall conduct two technology reviews that evaluate the development of technologies to replace Hexavalent Chromium in Hard Chrome Plating and Chromic Acid Anodizing operations. Each technology review shall include a summary of the status of the development and availability of alternative technologies.

1. CARB staff will complete first technology review by January 1, 2032, and the second technology review by January 1, 2036.

(c) Limits that apply to all Chrome Plating Tanks that use Hexavalent Chromium.

(1) During Tank(s) Operation, each Owner or Operator shall control Hexavalent Chromium emissions from all Chrome Plating Tank(s) that use Hexavalent Chromium by meeting the requirements identified in the table below.

(A) Subsection (c)(1) shall apply until January 1, 2026, to Chrome Plating Tanks used for the purposes of Functional Chrome Plating.

(B) Subsection (c)(1) shall apply to Chrome Plating Tanks used for the purposes of Decorative Chrome Plating.

Table 93102.4: Hexavalent Chromium Emission Limitation for Chrome Plating Tanks

Sensitive Receptor Distance[1]	Annual Permitted Ampere-Hours	Emission Limitation
≤ 330 feet	≤ 20,000	Use Chemical Fume Suppressants as specified in section 93102.8[2]
≤ 330 feet	> 20,000 and ≤ 200,000	0.0015 milligrams/Ampere-Hour as measured after Add-on Air Pollution Control Device(s)
≤ 330 feet	> 200,000	0.0015 milligrams/Ampere-Hour as measured after Add-on Air Pollution Control Device(s)[3]
> 330 feet	≤ 50,000	Use Chemical Fume Suppressants as specified in section 93102.8[2]
> 330 feet	> 50,000 and ≤ 500,000	0.0015 milligrams/Ampere-Hour as measured after Add-on Air Pollution Control Device(s)
> 330 feet	> 500,000	0.0015 milligrams/Ampere-Hour as measured after Add-on Air Pollution Control Device(s)[3]

[1] Sensitive receptor distance is the most current distance between the Facility and the nearest sensitive receptor that is recorded with the District.
[2] Alternatively, a Facility may install an Add-on Air Pollution Control Device(s) that controls emissions to below 0.0015 milligrams per Ampere-Hour.
[3] When annual emissions exceed 15 grams, a Site-Specific Risk Analysis must be conducted by the Owner or Operator in accordance with the District's procedures, unless a Site-Specific Risk Analysis has already been conducted and approved by the District. The analysis shall be submitted to the District.

(2) Beginning on January 1, 2026, each Chrome Plating Tank used for Functional Chrome Plating that contains Hexavalent Chromium shall meet an Emission Limitation of 0.00075 mg/Amp-Hr of Hexavalent Chromium, measured downstream of any Add-on Air Pollution Control Device(s).

(A) Beginning on January 1, 2026, Chrome Plating Tanks that use Hexavalent Chromium for the purposes of both Decorative Chrome Plating and Functional Chrome Plating shall comply with the Emission Limitation in subsection (c)(2) instead of complying with the requirements set forth in subsection (c)(1).

(d) *Building Enclosure Requirements.* The following requirements apply beginning January 1, 2026, to Functional Chrome Plating operations that use Hexavalent Chromium and to Decorative Chrome Plating operations that elect to comply via the alternative phase out pathway in subsection (b)(1)(A) for as long as they continue to use Hexavalent Chromium.

(1) Building Enclosure requirements that apply to Chrome Plating operations that use any Tier I, Tier II, or Tier III Hexavalent Chromium Tanks.

(A) Tier I, Tier II and Tier III Hexavalent Chromium Tanks shall be operated only within a Building Enclosure.

(B) All Building Enclosure Openings that are open to the Exterior and on opposite ends of the Building Enclosure from each other shall be equipped with a Protected Opening Method and shall not be simultaneously open except during the passage of vehicles, equipment, or people through the Building Enclosure Opening.

(C) All Building Enclosure Openings that directly face any Sensitive Receptor that is located within 1,000 feet, as measured from the property line of the Sensitive Receptor to the Building Enclosure Opening, shall be equipped with a Protected Opening Method and remain closed except during the passage of vehicles, equipment, or people through the Building Enclosure Opening.

(2) Requirements for Building Enclosures that apply to Chrome Plating operations that use any Tier II or Tier III Hexavalent Chromium Tanks.

(A) The combined area of all Building Enclosure Openings shall not exceed 3.5 percent of the surface area of the Building Enclosure Envelope.

1. The surface area of the Building Enclosure Envelope shall be calculated by adding together the surface area of the floor, the surface area of the Exterior walls, and the area of the roof. The area of the floor may be used for the area of the roof in this calculation.

2. The combined area of all Building Enclosure Openings shall be calculated by adding the surface area of all Building Enclosure Openings, except Building Enclosure Openings that are equipped with a Protected Opening Method.

3. The dimensions used in the calculation of the Building Enclosure Envelope and Building Enclosure Openings and a schematic diagram depicting these dimensions and the locations of the Building Enclosure Openings shall be provided in the ongoing compliance status reports required in section 93102.13(b).

(B) All Building Enclosure Openings in the roof that are located within 15 feet from the edge of any Tier II Tank or Tier III Tank shall either remain closed or be equipped with a HEPA Filter, or other Add-on Air Pollution Control Device that reduces emissions to an equal or greater extent as a HEPA Filter, and that fully covers the opening, except Building Enclosure Openings that:

1. Are actively providing access for equipment or parts; or

2. Provide intake or circulation air for a Building Enclosure. Such Openings shall not create air velocities that decrease the collection efficiency of a ventilation system for an Add-on Air Pollution Control Device.

(C) Any Breach in a Building Enclosure shall be repaired within 72 hours of discovery of the Breach. The Owner or Operator may request an extension by contacting their District in accordance with the District's procedures. The District may approve a request for an extension beyond the 72-hour limit if

the request is submitted before the 72-hour time limit has expired and the Owner or Operator provides information that demonstrates that:

1. The repair will take longer than 72 hours, or the equipment, parts, or materials needed for the repair cannot be obtained within 72 hours; and

2. Temporary measures are implemented that prevent the release of Fugitive Emissions from the Breach.

(3) *Alternative Building Enclosure compliance plans.*

(A) If the Facility cannot comply with any of the requirements specified in subsections (d)(1) and (d)(2) due to conflicting requirements set forth by the federal Occupational Safety and Health Administration (OSHA), California Occupational Safety and Health Administration (CalOSHA), or other applicable municipal codes or agency requirements directly related to worker safety, the Owner or Operator shall submit a request to implement an alternative Building Enclosure compliance plan to the District as required by Appendix 1.

(B) The request to implement an alternative Building Enclosure compliance plan shall be submitted as required by Appendix 1 and include:

1. An explanation as to why the Facility cannot comply with the applicable provision(s) in subsection (d)(1) or (d)(2) due to worker safety requirements set forth by OSHA, CalOSHA, or another municipal code or agency;

2. A detailed description of the alternative Building Enclosure compliance measure(s), including documentation that demonstrates that these measures will restrict air from escaping the Building Enclosure in an amount equal or greater than the amount that would have been achieved by compliance with subsection (d)(1) or (d)(2); and

3. The timeframe in which the alternative Building Enclosure compliance plan will be implemented.

(C) The District shall notify the Owner or Operator in writing whether the alternative Building Enclosure compliance plan submitted per subsection (d)(3)(A) is approved or disapproved or incomplete.

1. If the District determines that the request is incomplete, the District shall issue a notice of deficiency in writing to the Owner or Operator. The Owner or Operator shall submit a revised compliance plan that addresses the identified deficiencies as required by Appendix 1, or the request will be disapproved.

2. If the District determines that the alternative Building Enclosure compliance plan will not restrict air from escaping the Building Enclosure in an amount equal to or greater than the amount that would have been achieved by compliance with subsection (d)(1) or (d)(2), the District shall issue a notice of disapproval in writing to the Owner or Operator.

3. If the request is complete and the District determines that the alternative Building Enclosure compliance plan restricts air from escaping the Building Enclosure in an amount equal to or greater than the amount that would have been achieved by compliance with subsection (d)(1) or (d)(2), the District shall issue a written notice approving the alternative Building Enclosure compliance plan. This notice of approval shall specify whether it covers the requirements set forth in subsection (d)(1) or (d)(2), or both, as well as the alternative Building Enclosure compliance plan to be implemented, and the timeframe in which it shall be implemented.

(D) If the Owner or Operator complies with the requirements set forth in the approval of the alternative Building Enclosure compliance plan, they will be exempted from the applicable requirements of subsection (d)(1) or (d)(2), or both, as set forth in the notice of approval and for the timeframe indicated in the notice of approval.

(e) *Requirements for Modified Facilities using Hexavalent Chromium.*

(1) An Owner or Operator of an Existing Facility may only undergo a Modification of an Existing Facility after January 1, 2024 as long as:

(A) Permitted Annual Ampere-Hours, after Modification, do not exceed permitted levels for the Existing or Modified Facility in place as of January 1, 2024; and

(B) Any Hexavalent Chromium Containing Tank(s) that undergo Modifications, including being added to the Facility, meet all

applicable requirements of this ATCM.

(2) Each Owner or Operator of a Modified Facility shall, upon Initial Start-Up and during all subsequent Tank Operation, control Hexavalent Chromium emissions from all of the Facility's Chrome Plating Tank(s) by:

(A) Using an Add-on Air Pollution Control Device(s) to control Hexavalent Chromium emissions, and

(B) Meeting an Emission Limitation of 0.00075 milligrams of Hexavalent Chromium per Ampere-Hour or less.

(3) Prior to Initial Start-Up of a Modified Facility, the Owner or Operator shall conduct a Site-Specific Risk Analysis in accordance with the District's procedures. The analysis shall be submitted to the District.

(f) *Emission Limitations for Tier III Hexavalent Chromium Containing Tanks, excluding Chrome Plating Tanks, at Functional Chrome Plating Facilities.*

(1) Beginning on July 1, 2024, and until the Add-on Air Pollution Control Device specified in subsection (f)(2) has been installed, cover the entire surface area of the Tank no later than 30 minutes after ceasing operation of the Tank. Tank covers shall be free of holes, tears, and gaps and made of a non-permeable and durable material such as metal or plastic.

(2) Applicable beginning on January 1, 2026, Hexavalent Chromium emissions from any Tank subject to subsection (f) shall be collected and ventilated to an Add-on Air Pollution Control Device that meets the following Hexavalent Chromium Emission Limitations as demonstrated by a Source Test that meets the requirements under section 93102.7.

(A) 0.00075 mg/Amp-Hr for any Tank(s) that are connected to an Add-on Air Pollution Control Device that is also connected to a Chrome Plating Tank.

(B) 0.20 mg/hr for any Tank(s) that are not covered by subsection (A), if the Add-on Air Pollution Control Device has a maximum exhaust rate of 5,000 cubic feet per minute or less per manufacturer's specifications; or

(C) 0.004 mg/hr-ft^2 for any Tank(s) that are not covered by subsection (A), if the Add-on Air Pollution Control Device has a maximum exhaust rate of greater than 5,000 cubic feet per minute per manufacturer's specification.

1. The applicable surface area shall be based on the total surface area of all Tier III Tank(s) connected to the same Add-on Air Pollution Control Device.

2. If the Owner or Operator elects to control Tier II Tank(s) per the requirements of section 93102.4(g)(2), the applicable surface area shall be based on the total surface area of all Tier II and Tier III Tank(s) connected to the same Add-on Air Pollution Control Device.

(3) The requirements of section 93102.4(f)(2) do not apply to Tank(s) if the Owner or Operator demonstrates to the District that the uncontrolled Hexavalent Chromium emission rate of the Tank is less than 0.20 mg/hr, as demonstrated by a Source Test approved by the District per the requirements of section 93102.7.

(4) *Permitting Process for Tanks subject to subsection (f).*

(A) The Owner or Operator shall submit to the District prior to January 1, 2025, an application for an authority to construct for any Add-on Air Pollution Control Device to be used on any Tank(s) subject to subsection (f).

(B) The Owner or Operator shall conduct a Source Test on the Tank(s) demonstrating that the applicable Emission Limitation is satisfied.

1. For Tank(s) subject to subsection (f)(2)(A), the Source Test shall be conducted during the operation of the Chrome Plating Tank that is connected to the Tank subject to subsection (f)(2)(A).

(C) The Owner or Operator shall submit to the District an application for a permit to operate the Tank(s) that includes the results of the Source Test.

(D) The District shall not issue a permit to operate unless the Source Test demonstrates that the applicable Emission Limitation is satisfied.

(g) *Requirements to control Hexavalent Chromium Emissions from Tier II Tanks at Functional Chrome Plating Facilities.*

(1) Beginning July 1, 2024, utilize a Tank cover, Mechanical Fume Suppressant, or other method approved by the District. If a Tank cover is used, cover the entire surface area of the Tank no later than

30 minutes after ceasing operation of the Tank. Tank covers shall be free of holes, tears, and gaps and made of a non-permeable and durable material such as metal or plastic.

(2) Beginning January 1, 2026, the Owner or Operator may elect to comply with the Emission Limitations set forth in section 93102.4(f)(2) instead of complying with section 93102.4(g)(1).

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.5. Additional Requirements for Chrome Plating Facilities that Use Hexavalent Chromium.

This section sets forth requirements that apply to all Facilities using Hexavalent Chromium for Chrome Plating Operations.

(a) *Removal of Add-on Air Pollution Control Device(s).* No Add-on Air Pollution Control Device(s) installed on a Hexavalent Chromium Containing Tank shall be removed or rendered inoperable unless:

(1) It is replaced by an Add-on Air Pollution Control Device meeting the emission rate applicable to the Tank(s) as measured after the Add-On Air Pollution Control Device;

(2) The Facility is operating under an approved alternative method as provided in section 93102.14 and Health and Safety Code section 39666(f); or

(3) The Hexavalent Chromium Containing Tank is being removed or taken out of service.

(b) *Environmental Compliance Training.* The Owner or Operator of a Facility shall ensure that Chrome Plating Operations are conducted under the direction of the Owner or Operator or current employee who is onsite and who has completed the CARB Compliance Assistance Training Course on Chrome Plating every two years.

(1) Environmental compliance and recordkeeping required by this ATCM shall be conducted under the supervision of persons who completed a CARB Compliance Assistance Training Course on Chrome Plating and who are onsite.

(2) In the event that all Persons who have completed the CARB training course are no longer associated with a Facility, the Owner or Operator shall be responsible for supervising environmental compliance and recordkeeping required by this ATCM for a period of

time not to exceed two years. The Owner or Operator shall ensure that, as soon as practicable, but not longer than two years, personnel complete the training specified in section 93102.5(b).

(3) Environmental compliance training conducted by the South Coast Air Quality Management District on Chrome Plating shall fulfill the requirements of this subpart.

(c) *Housekeeping requirements.* Beginning January 1, 2024, the following housekeeping practices shall be implemented:

(1) Chromic Acid powder or flakes, or other substances that may contain Hexavalent Chromium, shall be stored in a closed container in an Enclosed Storage Area.

(2) Chromic Acid powder or flakes shall be transported from an Enclosed Storage Area to the Chrome Plating Bath(s) in a closed container.

(3) Clean, using an Approved Cleaning Method, or contain, using a drip tray or other containment device, any liquid or solid material that may contain Hexavalent Chromium that is spilled within one hour after being spilled.

(4) Clean Weekly, using an Approved Cleaning Method, the following:

(A) Surfaces within the Enclosed Storage Area;

(B) Floors in the Tank Process Area;

(C) Walkways around Tier I, Tier II, or Tier III Tank(s);

(D) Surfaces in the Building Enclosure or Tank Process Area; and

(E) Any other surfaces potentially contaminated with Hexavalent Chromium.

(5) Store, dispose of, recover, or recycle Hexavalent Chromium or Hexavalent Chromium-containing wastes generated from the housekeeping activities in subsection (c) using practices that do not lead to Fugitive Emissions and in accordance with hazardous waste requirements. Containers with chromium-containing waste material shall be kept closed at all times, except when being filled or emptied, and shall be stored in an Enclosed Storage Area.

(6) Use an Approved Cleaning Method to clean floors within a 20-foot radius of any buffing, grinding, or polishing workstation(s) at the end of each day on days when buffing, grinding, or polishing are conducted.

(7) Store the following materials in a closed container or in an Enclosed Storage Area.

(A) Cleaning equipment and supplies used to comply with the housekeeping requirements in subsection (c) when not in use;

(B) Reusable Tank covers used with a Tier I, Tier II, or Tier III Hexavalent Chromium Tank when not on the Tank;

(C) Reusable hangers used with a Tier I, Tier II, or Tier III Hexavalent Chromium Tank when not being used to hold a part; and

(D) Anodes and Cathodes used with a Tier I, Tier II, or Tier III Hexavalent Chromium Tank when not in the Tank;

(d) *Best Management Practices.*

(1) *Minimizing Dragout.* Beginning July 1, 2024, Dragout from Tier I, Tier II, and Tier III Tanks shall be minimized by containing the liquid as follows:

(A) For automated lines: drip trays, or other containment devices, shall be installed between Tier I, Tier II, or Tier III Tanks such that liquid does not fall through the space between Tanks.

(B) For non-automated lines: each Base Material and equipment used to handle the Base Material must be handled so that liquid containing chromium or Chromic Acid is not dripped outside the Tank, unless the liquid is captured by a drip tray or other containment device.

(C) Drip trays or containment devices shall capture and return the liquid to the Tanks and be cleaned Weekly such that there is no accumulation of visible dust or residue on the drip tray or other containment device.

(2) *Spray rinsing.* Beginning July 1, 2024, Base Material or equipment that was previously in a Tier I, Tier II, or Tier III Tank shall not be spray rinsed unless the parts or equipment are fully lowered inside a Tank such that the liquid from the spray rinsing is captured inside the Tank.

(A) As an alternative, parts or equipment that were previously in a Tier I, Tier II, or Tier III Tank can be spray rinsed while not fully lowered inside of a Tank only if any liquid from the spray rinsing is captured and returned to the Tank by meeting one of the following conditions:

1. Facilities spraying down parts over the Chrome Plating Tank(s) to remove excess Chromic Acid shall have a splash guard installed at the Tank to minimize overspray and to ensure that any Hexavalent Chromium laden liquid is captured and returned to the Chrome Plating Tank. Splash guard(s) shall be free of holes, tears, and gaps and made of a non-permeable and durable material such as metal or plastic. Splash guards shall be cleaned Weekly with water such that there is no accumulation of visible dust; or

2. For Tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards, use a Low Pressure Spray Nozzle in a manner where the water flows off of the part or equipment directly into the Tank.

(3) *Air sparging.* Beginning July 1, 2024, air sparging of a Tier I, Tier II, or Tier III Tank shall only be performed when the Tank is in use.

(4) *Buffing, grinding, and polishing operations.*

(A) Buffing, grinding, or polishing areas within a Facility shall be separated from the Chrome Plating Operations by installing a Barrier, such as plastic strip curtains, that restricts air flow out of the buffing, grinding, or polishing areas.

(B) Beginning January 1, 2026, all buffing, grinding, and polishing operations at Facilities that use Hexavalent Chromium for the purposes of Functional Chrome Plating and at Facilities that elect to comply with the alternative phase out pathway in section 93102.4(b)(1)(A), shall be conducted within a Building Enclosure for as long as the Facility continues to use hexavalent chromium.

(5) *Compressed Air Cleaning and Drying Operations.* Beginning July 1, 2024, compressed air cleaning or drying operations shall not be performed within 15 feet of any Tier II or Tier III Tank(s), unless a Barrier separates the compressed air cleaning or drying operation from the Tier II or Tier III Tank(s). A Tank wall may function as the Barrier provided the parts being air cleaned or dried are below the lip of the Tank.

(6) *Labeling of Tanks.* Beginning July 1, 2024, all Hexavalent Chromium containing Tank(s) shall be clearly labeled with a Tank number or other identifier, District permit number, Bath Components, maximum

concentration (ppm) of Hexavalent Chromium, operating temperature range, any agitation methods used, and designation of whether it is a Tier I, Tier II, or Tier III Tank.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.6. Requirements that Apply to Trivalent Chromium Plating or Enclosed Hexavalent Chromium Plating Tanks.

(a) *Provisions that Apply to All Facilities that Perform Trivalent Chromium Plating.*

(1) Total chromium emissions from Trivalent Chromium Plating Tanks shall be controlled by either:

(A) Meeting an Emission Limitation of ≤ 0.01 mg/dscm ($4.4x10^{-6}$ gr/dscf), complying with the Source Test requirement in section 93102.7(a)(5), and complying with the reporting requirements in section 93102.13(d)(1)(B) (for Facilities using Trivalent Chromium Plating prior to January 1, 2024) or section 93102.13(d)(2)(B) (for Facilities changing to Trivalent Chromium Plating on or after January 1, 2024); or

(B) Using a Wetting Agent as a Bath Component, complying with the recordkeeping requirements in section 93102.12(h), and complying with the reporting requirements in section 93102.13(d)(1)(A) (for Facilities using Trivalent Chromium Plating prior to January 1, 2024) or section 93102.13(d)(2)(A) (for Facilities changing to Trivalent Chromium Plating on or after January 1, 2024).

(2) An Owner or Operator that performs Trivalent Chromium Plating and complies with subsection (a)(1)(B) through use of a Wetting Agent shall not be required to comply with the requirements of sections 93102.7, 93102.8, 93102.9(b) through (f), 93102.10, 93102.11, 93102.12(a) through (g), and 93102.12(i).

(3) An Owner or Operator that performs Trivalent Chromium Plating and complies with the 0.01 mg/dscm limit in subsection (a)(1)(A) shall not be required to comply with the requirements of section 93102.8.

(4) If a Facility has Hexavalent Chromium Containing Tanks in addition to Tanks being used for Trivalent Chromium Plating, the Hexavalent Chromium Containing Tanks must be in compliance with all of the

applicable requirements of this ATCM.

(5) *Labeling of Tanks.* Beginning July 1, 2024, all Trivalent Chromium containing Tank(s) shall be clearly labeled with a Tank number or other identifier, District permit number, and Bath Components.

(b) *Requirements for Enclosed Hexavalent Chromium Plating Tanks.*

(1) The Owner or Operator of a Facility with Enclosed Hexavalent Chromium Plating Tank(s) shall control Hexavalent Chromium emissions from the Enclosed Hexavalent Chromium Plating Tank(s) by:

(A) Achieving a Hexavalent Chromium Emission Limitation of 0.015 mg/dscm from each Enclosed Hexavalent Chromium Plating Tank as measured after passage through the Add-on Air Pollution Control Device(s);

(B) Using a Chemical Fume Suppressant specified in section 93102.8, and maintaining the Surface Tension of the Chrome Plating Bath solution at a value specified in section 93102.8; or

(C) Not allowing the mass emission rate of the total chromium to exceed the maximum allowable mass emission rate as specified in Appendix 6.

(2) The Owner or Operator of a Facility that has Enclosed Hexavalent Chromium Plating Tank(s) must comply with all applicable requirements of this ATCM.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.7. Source Test Requirements and Test Methods.

(a) *Source Test requirements.*

(1) All Facilities that use Hexavalent Chromium for the purposes of Functional Chrome Plating must conduct an initial Source Test on all Tier III Tanks by January 1, 2026, to demonstrate compliance with the Hexavalent Chromium Emission Limitations in section 93102.4(c)(2) and section 93102.4(f)(2).

(2) Functional Chrome Plating Facilities that undergo Modification(s) to Tier III Tanks that are not complete by January 1, 2026, must conduct an initial Source Test on these Tank(s) no later than 60 days after

Initial Start-Up to demonstrate compliance with the applicable Hexavalent Chromium Emission Limitations in section 93102.4(e)(2)(B).

(3) All Functional Chrome Plating Facilities that use Hexavalent Chromium must conduct a Source Test on all Tier III Tanks every 2 calendar years after the date of the previous Source Test.

(4) The Source Test must be conducted using one of the approved test methods specified in section 93102.7(b). The Hexavalent Chromium emission rate shall be multiplied by the Facility Annual Permitted Ampere-Hour usage to determine the annual emissions of Hexavalent Chromium for the Facility.

(5) Trivalent Chromium Plating facilities meeting the mg/dscm Emission Limitation specified in section 93102.6(a)(1)(A) must conduct a Source Test to demonstrate compliance with the total chromium Emission Limitation upon Initial Start-Up.

(b) *Approved test methods*

(1) A Source Test shall be conducted with a minimum of three test runs in accordance with one of the following test methods:

(A) CARB Test Method 425, last amended July 28, 1997, (section 94135, Title 17, California Code of Regulations (CCR));

(B) U.S. EPA Method 306, (40 Code of Federal Regulations, Part 63 Appendix A) with or without Hexavalent Chromium option (Method 306, section 2.2.3) provided that, if the total chromium option is used, the total chromium measurement must be assumed to be all Hexavalent Chromium; or

(C) South Coast Air Quality Management District Method 205.1.

(2) Smoke test to verify the seal integrity of covers designed to reduce chromium emissions from Chrome Plating Tanks (See Appendix 4).

(3) When using a Tensiometer, Surface Tension shall be measured in accordance with U.S. EPA Method 306B (40 Code of Federal Regulations, Part 63 Appendix A). When using a Stalagmometer, Surface Tension shall be measured using the procedure set forth in Appendix 7, or an alternative procedure approved by the District.

(c) *Pre-Test protocol.* Facilities subject to the provisions of section 93102.7(a) must submit a pre-test protocol to the District at least 60 days prior to conducting a Source Test. The pre-test protocol shall include the Source

Test criteria for the Facility and all assumptions, required data, and calculated targets for testing the source target chromium concentration, the preliminary chromium analytical data, and the planned sampling parameters, including test methods. In addition, the pre-test protocol shall include information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511,Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.8. Chemical Fume Suppressants.

Chemical Fume Suppressants used to comply with sections 93102.4 and 93102.6(b)(1)(B) shall meet the criteria specified in this section 93102.8.

(a) One or more of the Chemical Fume Suppressants listed in Table 93102.8 shall be used to reduce the Surface Tension of the Chrome Plating Bath(s) below the Surface Tension value listed in Table 93102.8. The Surface Tension value may be measured using either a Stalagmometer as required by Appendix 7 or a Tensiometer. The approved use of each fume suppressant is indicated in parenthesis.

Table 93102.8: Chemical Fume Suppressants Approved for Use at Specified Surface Tensions

Chemical Fume Suppressant and Manufacturer	Stalagmometer Measured Surface Tension (dynes/centimeter)	Tensiometer Measured Surface Tension (dynes/centimeter)
Fumetrol 21 LF2® Atotech U.S.A. (Hard Chrome Plating)	≤ 30	≤ 27
Dicolloy CRPF® ProCom LLC (Decorative plating and Chromic Acid Anodizing)	≤ 32	≤ 29
HCA 8.4® Hunter Chemical LLC (Decorative Chrome Plating and Chromic Acid Anodizing)	≤ 25	≤ 22
HCA-8.4® Hunter Chemical LLC (Hard Chrome Plating)	≤ 33	≤ 30
Macuplex STR NPFX® MacDermid Enthone Industrial Solutions (Decorative Chrome Plating and Chromic Acid Anodizing)	≤ 32	≤ 30

(b) *Alternative Chemical Fume Suppressants.* Chemical Fume Suppressants not listed in Table 93102.8 may be used upon approval by the Executive Officer. The Executive Officer shall approve the use of an alternative Chemical Fume Suppressant if the following criteria are met:

(1) The Chemical Fume Suppressant does not contain PFAS or any PFAS Compound;

(2) The Chemical Fume Suppressant has been Source Tested under conditions that are representative of normal operations in a Hexavalent Chromium Bath and demonstrated to reduce the Hexavalent Chromium emissions below 0.01 milligrams per Ampere-Hour; and

(3) In the Source Testing, the Hexavalent Chromium emission rate of 0.01 milligrams per Ampere-Hour was achieved under conditions in which the Surface Tension did not exceed 45 dynes/cm, as measured by a Stalagmometer, or 35 dynes/cm, as measured by a Tensiometer.

(c) A Chemical Fume Suppressant that is listed in section 93102.8(a) or that has been approved under section 93102.8(b) may no longer be used if the Executive Officer determines that the Chemical Fume Suppressant is no longer able to reduce the Hexavalent Chromium emission rate below 0.01 milligrams per Ampere-Hour under conditions in which the Surface Tension does not exceed 45 dynes/cm, as measured by a Stalagmometer, or 35 dynes/cm, as measured by a Tensiometer.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.9. Parameter Monitoring Requirements.

(a) *Ampere-Hours.* Each Chrome Plating Tank, or group of Chrome Plating Tanks, shall have installed a continuous recording, non-resettable, Ampere-Hour meter that operates on the electrical power lines connected to the Tank or group of Tanks. A separate meter shall be hard-wired for each rectifier.

(b) *Pressure drop.* The Owner or Operator shall continuously monitor the pressure drop across an Add-on Air Pollution Control Device such as a Composite Mesh-Pad (CMP), Packed-Bed Scrubber (PBS), a CMP/PBS, Fiber-Bed Mist Eliminator, and a HEPA Filter with a mechanical gauge. The gauge shall be located so that it can be easily visible and in clear sight of the operation, or maintenance personnel. The pressure drop shall be maintained within plus or minus 2 inches of water of the value established during the Source Test to demonstrate compliance with the Emission Limitation for CMP, PBS, a CMP/PBS, and a Fiber-Bed Mist Eliminator. The pressure drop

shall be maintained within -½ times to +2 times the inches of water of the value established during the Source Test to demonstrate compliance with the Emission Limitation for HEPA Filters.

(c) *Inlet velocity pressure.* The Owner or Operator shall continuously monitor the inlet velocity pressure of a Packed-Bed Scrubber with a mechanical gauge. The gauge shall be located so that it can be easily visible and in clear sight of the operation, or maintenance personnel. The inlet velocity pressure shall be maintained within plus or minus 10 percent of the value established during the Source Test to demonstrate compliance with the Emission Limitation.

(d) *Surface Tension.*

(1) The Owner or Operator of a Facility that is required to use a Chemical Fume Suppressant as specified in section 93102.8 to comply with section 93102.4 shall measure and monitor the Surface Tension of the Chrome Plating Bath(s) that contains a Chemical Fume Suppressant listed in Table 93102.8 of section 93102.8 with either a Stalagmometer using the procedure in Appendix 7 of section 93102.16 or a procedure approved by the District, or with a Tensiometer using U.S. EPA Method 306B (40 Code of Federal Regulations, part 63, Appendix A). The Surface Tension shall be maintained below the value required by section 93102.8. Surface Tension shall be measured Daily for 20 Operating Days, and Weekly thereafter as long as there is no violation of the Surface Tension requirement. If a violation occurs, the measurement frequency shall return to Daily for 20 Operating Days, and Weekly thereafter.

(2) The Owner or Operator of a Facility using a Chemical Fume Suppressant containing a Wetting Agent that is not required to use a Chemical Fume Suppressant listed in Table 93102.8 of section 93102.8 shall measure and monitor the Surface Tension of the Chrome Plating Bath(s) with either a Stalagmometer using the procedure in Appendix 7 of section 93102.16 or a procedure approved by the District, or with a Tensiometer using U.S. EPA Method 306B (40 Code of Federal Regulations, part 63, Appendix A). If the Surface Tension is measured with a Stalagmometer, the Surface Tension shall be maintained below 45 dynes/centimeter. If the Surface Tension is measured with a Tensiometer, the Surface Tension shall be maintained below 35 dynes/centimeter. Surface Tension shall be measured Daily for 20 Operating Days, and Weekly thereafter as long as there is no violation of the Surface Tension requirement. If a violation occurs, the measurement frequency shall return to Daily for 20 Operating Days, and Weekly thereafter.

(3) Facilities with an approved alternative method of compliance as specified in section 93102.14 and using Chemical Fume Suppressants as all or partial control of Hexavalent Chromium emissions must measure and monitor the Surface Tension of the Chrome Plating Bath Daily. The Surface Tension must be maintained at or below the Surface Tension measured during the Source Test.

(e) *Foam Blanket thickness.* The Owner or Operator shall monitor the Foam Blanket thickness across the surface of the Chrome Plating Bath(s). The Foam Blanket thickness shall be maintained consistent with the requirements established during the Source Test to demonstrate compliance with the Emission Limitation. Foam thickness shall be measured Hourly for 15 Operating Days, and Daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to Hourly for 15 Operating Days, and Daily thereafter.

(f) *Mechanical Fume Suppressants.* The Owner or Operator shall visually inspect the Chrome Plating Bath(s) for coverage comparable to the coverage during the Source Test Daily.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.10. Inspection and Maintenance Requirements.

(a) Chrome Plating Facilities using Hexavalent Chromium shall comply with the applicable inspection and maintenance requirements listed in Table 93102.10.

Table 93102.10: Summary of Inspection and Maintenance Requirements

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Composite Mesh-Pad (CMP) System, Packed-Bed Scrubber (PBS), or PBS/CMP	1. Visually inspect device to ensure that there is proper drainage, no unusual Chromic Acid buildup on the pads and/or packed beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Quarterly.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of Chromic Acid Mist, and/or back portion of the chevron mist eliminator to ensure it is dry and there is no breakthrough of Chromic Acid Mist.	2. Quarterly.
	3. Visually inspect ductwork from Tank to the Add-on Air Pollution Control Device to ensure there are no Leaks.	3. Quarterly.

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	4. Perform washdown and/or add fresh makeup water to the packed bed when it is needed.	4. Per manufacturer.
Fiber-Bed Mist Eliminator[A]	Same as number 1 for CMP, PBS, or PBS/CMP.	1. Quarterly.
	Same as number 3 for CMP, PBS, or PBS/CMP.	2. Quarterly.
	Same as number 4 for CMP, PBS, or PBS/CMP.	3. Per manufacturer.
High Efficiency Particulate Arrestor (HEPA) Filter	1. Look for changes in the pressure drop.	1. Weekly.
	2. Replace HEPA Filter.	2. Per manufacturer's specifications or District's requirement.
Enclosed Hexavalent Chromium Plating Tanks [Facilities subject to section 93102.6(b)]	1. Drain the air-inlet (purge air) valves at the end of each day that the Tank is in operation.	1. Daily.
	2. Visually inspect Tank access door seals and membranes for integrity.	2. Weekly.
	3. Drain the evacuation unit directly into the Chrome Plating Tank or into the rinse Tanks (for recycle into the Chrome Plating Tank).	3. Weekly.
	4. Visually inspect membranes for perforations using a light source that adequately illuminates the membrane (e.g. Grainger model No. 6X971 Fluorescent Hand Lamp).	4. Monthly.
	5. Visually inspect all clamps for proper operation; replace as needed.	5. Monthly.
	6. Clean or replace filters on evacuation unit.	6. Monthly.
	7. Visually inspect piping to, piping from, and body of evacuation unit to ensure there are no Leaks and no evidence of chemical attack.	7. Quarterly.

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	8. Replace access door seals, membrane evacuation unit filter, and purge air inlet check valves in accordance with the manufacturer's recommendations.	8. Per manufacturer.
Pitot tube	Backflush with water or remove from the duct and rinse with Fresh Water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check pitot tube ends for damage. Replace pitot tube if cracked or fatigued.	Quarterly.
Ampere-Hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Stalagmometer/ Tensiometer	Calibrate and maintain per manufacturer's specifications.	Per manufacturer.
Building Enclosure	Visually inspect for Breaches in Building Enclosure(s) required pursuant to section 93102.4(d).	Weekly

[A] Inspection and maintenance requirements for the control device installed upstream of the Fiber-Bed Mist Eliminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

(b) Add-on Air Pollution Control Device(s) that are custom designed for a specific operation shall also include specific operating and maintenance requirements determined by the manufacturer. The requirements shall be submitted to the District for review and approval. The requirements and frequency of inspection must be sufficient to ensure compliance.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.11. Operation and Maintenance Plan (O & M Plan) Requirements.

(a) *Prepare the O & M plan*. The Owner or Operator subject to the inspection and maintenance requirements of sections 93102.10(a) and (b) shall prepare an operation and maintenance plan. For Major Sources, the plan shall be incorporated by reference into the Source's title V permit. The plan shall incorporate the inspection and maintenance requirements for that device, or monitoring equipment, as identified in Table 93102.10, or section 93102.10(b) of this ATCM and include the following elements:

(1) A standardized checklist to document the operation and maintenance of the Facility, the Add-on Air Pollution Control Device, and the process and control system monitoring equipment; and

(2) Procedures to be followed to ensure that equipment is properly maintained. [To satisfy the inspection and maintenance requirements of this subsection, the Owner or Operator may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this subsection.]

(b) *Retain the O & M plan.* The Owner or Operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, during normal working hours.

(c) *Changes to the O & M plan.* Any changes made by the Owner or Operator should be documented in an addendum to the plan. In addition, the Owner or Operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, during normal working hours, for a period of 5 years after each revision to the plan.

(d) *Revisions to the O & M plan to address Breakdowns.* The operation and maintenance plan shall be revised as necessary to minimize Breakdowns.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.12. Recordkeeping Requirements.

(a) *Inspection records.* The Owner or Operator shall maintain inspection records to document that the inspection and maintenance requirements of section 93102.10 and Table 93102.10, and the provisions of the operation and maintenance plan required by section 93102.11 have been met. The record can take the form of a checklist and shall identify:

(1) The device inspected,

(2) The date and time of inspection,

(3) A brief description of the working condition of the device during the inspection,

(4) Maintenance activities performed on the components of the air pollution control system (i.e. duct work replacement, filter pad replacement, fan replacement, etc.), and

(5) Actions taken to correct deficiencies found during the inspection.

(b) *Source Test records.* The Owner or Operator shall maintain test reports documenting the conditions and results of all Source Tests.

(c) *Monitoring data records.* The Owner or Operator shall maintain records of monitoring data required by section 93102.9 that are used to demonstrate compliance, including the date and time the data are collected.

(1) *Cumulative rectifier usage records.* Record the cumulative rectifier usage expended at the end of each month of the reporting period, and the total usage expended to date.

(2) *Pressure drop.* The Owner or Operator shall record the pressure drop Weekly.

(3) *Inlet Velocity Pressure.* The Owner or Operator shall record the inlet velocity pressure Weekly.

(4) *Surface Tension.*

(A) For Facilities that are required to use a Chemical Fume Suppressant as specified in section 93102.8 to comply with section 93102.4:

The Owner or Operator shall record the Surface Tension Daily for 20 Operating Days, and Weekly thereafter as long as there is no violation of the Surface Tension requirement. If the Surface Tension of the Chrome Plating Bath exceeds levels specified in section 93102.8, the Owner or Operator shall again record the Surface Tension Daily for 20 Operating Days, and Weekly thereafter.

(B) For Facilities that are not required to use a Chemical Fume Suppressant as specified in section 93102.8 to comply with section 93102.4:

The Owner or Operator shall record the Surface Tension Daily for 20 Operating Days, and Weekly thereafter as long as there is no violation of the Surface Tension requirement. If the Surface Tension of the Chrome Plating Bath exceeds 45 dynes/centimeter, as measured with a Stalagmometer, or exceeds 35 dynes/centimeter, as measured with a Tensiometer, the Owner or Operator shall again record the Surface Tension Daily for 20 Operating Days, and Weekly thereafter.

(C) Facilities with an approved alternative method of compliance as specified in section 93102.14 and using Chemical Fume Suppressants as all or partial control of Hexavalent Chromium emissions must record the Surface Tension of the Chrome Plating Bath Daily. The Surface Tension must be maintained at or below the Surface Tension measured during the Source Test.

(5) *Mechanical Fume Suppressants.* Facilities with an approved alternative method of compliance as specified in section 93102.14 and using Mechanical Fume Suppressants as all or partial control of Hexavalent Chromium emissions must record the coverage on the Chrome Plating Bath Daily. Coverage shall be reported as a percentage of Bath surface area.

(6) *Foam thickness.* The Owner or Operator shall record the foam thickness Hourly for 15 Operating Days, and Daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to Hourly for 15 Operating Days, and Daily thereafter.

(d) *Breakdown records*. The Owner or Operator shall maintain records of the occurrence, duration, and cause (if known) and action taken on each Breakdown.

(e) *Records of excesses.* The Owner or Operator shall maintain records of exceedances of the Emission Limitations in section 93102.4, the monitoring parameter values established under section 93102.9, or any site-specific operating parameters established for alternative equipment. The records shall include the date of the occurrence, the duration, cause (if known), and, where possible, the magnitude of any excess emissions.

(f) *Records of annual Ampere-Hour use.* Facilities shall maintain Monthly records of total Ampere-Hour use per calendar year. The record shall be submitted to the District as part of their ongoing compliance status reports, as specified in Appendix 3.

(g) *Records of Chemical Fume Suppressant additions.* For Facilities using Chemical Fume Suppressants to comply with the standards, or requirements, the Owner or Operator shall maintain records of the date, time, approximate volume, and product identification of the Chemical Fume Suppressant that is added to the Bath.

(h) *Records of Trivalent Chromium Plating components.* For Facilities complying with section 93102.6(a)(1)(B), the Owner or Operator shall maintain records of the Bath Components purchased, including the trade or brand names, with the Wetting Agent clearly identified as a Bath Component.

(i) *Housekeeping records.* The Owner or Operator shall maintain records demonstrating compliance with housekeeping requirements, as required by section 93102.5, including the dates on which specific activities were completed, and records showing that chromium or chromium-containing wastes have been stored, disposed of, recovered, or recycled using practices that do not lead to Fugitive Emissions.

(j) *Records retention.* All records shall be maintained for five years, at least two years on site.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.13. Reporting Requirements.

(a) *Source Test documentation.*

(1) *Notification of Source Test.*

(A) The Owner or Operator of a Facility shall notify the District of his or her intention to conduct a Source Test at least 60 calendar days before the Source Test is scheduled.

(2) *Reports of Source Test results.* The Owner or Operator shall report Source Test results to the District. Reports of Source Test results shall be submitted no later than 90 days following the completion of the required Source Test and shall be submitted as part of the notification of compliance status required by subsection (b) of this section.

(3) The content of Source Test reports shall contain the information identified in Appendix 2.

(b) *Ongoing compliance status reports.* The Owner or Operator shall submit a summary report to the District to document the ongoing compliance status.

(1) Ongoing compliance status reports shall be submitted to the District on or before February 1 annually for all Facilities and shall include information for the preceding calendar year (January 1 through December 31).

(2) The content of ongoing compliance status reports shall include the information identified in Appendix 3.

(c) *Reports of Breakdowns.* The Owner or Operator shall report Breakdowns as required by the District's Breakdown rule.

(d) *Reports associated with Trivalent Chromium Plating.*

(1) *Facilities using Trivalent Chromium Plating prior to January 1, 2024.*

(A) Owners or Operators conducting Trivalent Chromium Plating using a Wetting Agent pursuant to section 93102.6(a)(1)(B) are not subject to subsections (a), (b), and (c) of this section 93102.13, but shall submit to the District the following information no later than July 1, 2024, (unless this information has been previously submitted):

1. The name and address of each Facility subject to this paragraph;

2. A statement that Trivalent Chromium Plating that incorporates a Wetting Agent will be used to comply with these requirements; and

3. The list of Bath Components, including the trade or brand names, that comprise the Trivalent Chromium Plating Bath, with the Wetting Agent clearly identified.

(B) An Owner or Operator conducting Trivalent Chromium Plating and complying with the Emission Limitation option in section 93102.6(a)(1)(A) shall submit the information contained in subsections (a) and (b) of this section 93102.13. The report shall be submitted in accordance with the schedules identified in those paragraphs.

(2) *Facilities changing to Trivalent Chromium Plating.* Within 30 days of a change to Trivalent Chromium Plating, the Owner or Operator shall submit to the District a report that includes:

(A) Facilities conducting Trivalent Chromium Plating using a Wetting Agent pursuant to section 93102.6(a)(1)(B) shall submit the following information:

1. The name and address of each Facility subject to this paragraph;

2. A statement that Trivalent Chromium Plating that incorporates a Wetting Agent will be used to comply with these requirements;

3. The list of Bath Components that comprise the Trivalent Chromium Bath, with the Wetting Agent clearly identified; and

4. A description of the manner in which the process has been changed.

(B) Facilities conducting Trivalent Chromium Plating and complying with the Emission Limitation option in section 93102.6(a)(1)(A) shall submit the information contained in subsections (a) and (b) of this section 93102.13. The report shall be submitted in accordance with the schedules identified in those paragraphs.

(e) *Adjustments to the timeline for submittal and format of reports.* A District may adjust the timeline for submittal of periodic reports, allow consolidation of multiple reports into a single report, establish a common schedule for submittal of reports, or accept reports prepared to comply with other State or local requirements. Prior to allowing an adjustment, the District must find that the adjustment will provide the same information and will not alter the overall frequency of reporting.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.14. Procedure for Establishing Alternative Method(s) of Compliance.

(a) As provided in Health and Safety Code section 39666(f), the Owner or Operator may submit to the District alternative method(s) that will achieve an equal or greater amount of reductions in Hexavalent Chromium emissions and equal or greater reductions in risk than would be achieved by direct compliance with the requirements of section 93102.4(c)(1) related to Chemical Fume Suppressants and section 93102.4(f)(2).

(b) To request approval of alternative method(s) of compliance, the Owner or Operator shall submit a request to the District as required by Appendix 1. The request must include the information listed in Appendix 8.

(c) The District shall notify the Owner or Operator in writing whether the request for the alternative method(s) of compliance is approved, disapproved, or incomplete. The District shall notify the Owner or Operator in writing if an approved alternative method is revoked.

(1) If the District determines that the request is incomplete, the District shall issue a notice of deficiency in writing to the Owner or Operator.

The Owner or Operator shall submit a revised compliance plan that addresses the identified deficiencies as required by Appendix 1.

(2) The District shall approve the proposed alternative method(s) if the Owner or Operator submits a request as required by in Appendix 1 that includes the information listed in Appendix 8 and demonstrates the requirements in subsections (A)–(D) are satisfied. The approval shall specify the requirement(s) that are approved to be replaced with the alternative compliance method(s).

(A) The method(s) will achieve equal or greater amounts of reductions in emissions of Hexavalent Chromium than the requirement(s) they propose to replace;

(B) The method(s) will achieve equal or greater reductions in risks associated with emissions of Hexavalent Chromium than the requirement(s) they propose to replace;

(C) The reductions will be achieved within the time period required by the requirement(s) they propose to replace; and

(D) The emission reductions that will be achieved by the alternative method(s) are Enforceable.

(3) The District shall deny the request for the alternative method(s) of compliance if the request was not submitted as required in Appendix 1, does not contain all information and documentation required by Appendix 8, or does not demonstrate that all of the criteria in subsections (c)(2)(A) through (D) are met.

(4) The District shall revoke approval of the alternative method(s) if the Facility fails to adequately implement the approved alternative method(s) or if subsequent Source Tests or monitoring demonstrate that the alternative method(s) do not reduce emissions and risk as required.

(d) A Facility operating under an approved alternative method(s) is exempted from the requirement(s) identified in the approval as being replaced with the alternative compliance method(s) but shall comply with all other applicable requirements of this ATCM, including the applicable Source Test requirements in section 93102.7.

(e) The District shall provide CARB with copies of the notice for all determinations it proposes to issue pursuant to section 93102.14(c). The information shall be provided prior to issuing the notice of the determination. At CARB's request, the District shall provide the Owner or Operator's request(s) submitted pursuant to section 93102.14(b) to CARB.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665, 39666 and 41511, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.15. Requirements Relating to Chrome Plating Kits.

(a) No Person shall sell, supply, offer for sale, or manufacture for sale in California, any Chrome Plating Kit.

(b) No person in California shall use a Chrome Plating Kit to perform Chrome Plating.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659 and 39666, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39665 and 39666, Health and Safety Code; and 40 Code of Federal Regulations Part 63 Subpart N.

§ 93102.16. Appendices 1 through 9.

This section 93102.16 contains Appendices 1 through 9 to the ATCM for Chromium Electroplating and Chromic Acid Anodizing Operations.

Appendix 1 – Submittals to CARB or the District.

All documentation submitted to CARB or the District pursuant to this ATCM shall:

1. Be written in the English language;

2. Contain the following statement of accuracy, signed by the Owner or Operator or Responsible Official: "I certify under penalty of perjury under the laws of the State of California that the information provided is true, accurate, and complete."

3. All documentation submitted to CARB pursuant to this ATCM shall be submitted by one of the following methods:

    a. Mailing to:

        Chief, Risk Reduction Branch, Transportation and Toxics Division
        California Air Resources Board
        1001 I Street, Sacramento, CA 95814

    b. Emailing to: chromeplatingatcm@arb.ca.gov.

4. All documentation submitted to the District pursuant to this ATCM shall be submitted in accordance with the District's procedures by one of the following methods:

    a. Mailing to the address listed here: https://www.capcoa.org/airdistricts/https://ww2.arb.ca.gov/california-air-districts

    b. Emailing to the email address designated by the District.

Appendix 2 – Content of Source Test Reports.

Source Test reports required by section 93102.13(a) shall contain the following information:

1. A brief process description;

2. Sampling location description(s);

3. A description of sampling and analytical procedures and any modifications to standard procedures;

4. Test results in mg/Amp-Hr;

5. Quality assurance procedures and results;

6. Records of operating conditions during the test, preparation of standards, and calibration procedures;

7. Original data for field sampling and field and laboratory analyses;

8. Documentation of calculations; and

9. Any other information required by the test method.

Note: Test reports consistent with the provisions of CARB Method 425 will fulfill the above Source Test report content requirement.

Appendix 3 – Content of Ongoing Compliance Status Reports.

Ongoing compliance status reports required by section 93102.13(b) shall contain the following information:

1. Company Information: Facility name, address, Owner or Operator name, telephone number, and the measured distance to the property boundary of the nearest Sensitive Receptor. For Facilities that do not have an Add-on Air Pollution Control Device, the measurement shall be the distance, rounded to the nearest foot, from the edge of the Chrome Plating Tank nearest the Sensitive Receptor to the property line of the nearest Sensitive Receptor. For Facilities with an Add-on Air Pollution Control Device, the measurement shall be the distance, rounded to the nearest foot, from the centroid of the stack to the property line of the nearest Sensitive Receptor;

2. The relevant requirements for the Facility, and the operating parameter value, or range of values, that correspond to compliance as specified in the notification of initial compliance status;

3. The actual cumulative Ampere-Hour usage expended during the reporting period, on a month-by-month basis, for the reporting period January 1 through December 31;

4. The actual Hexavalent Chromium emissions of the Facility during the reporting period in pounds per year calculated by multiplying the emission rate with the actual Ampere-Hour usage for the reporting period;

5. A summary of any excess emissions or exceeded monitoring parameters as identified in the records required by section 93102.12(e);

6. A certification by a Responsible Official that the inspection and maintenance requirements in section 93102.10 were followed in accordance with the operation and maintenance plan for the Facility;

7. If the operation and maintenance plan required by section 93102.11 was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emissions and/or monitoring parameter excesses are believed to have occurred, and acopy of the record(s) required by section 93102.12(a) documenting that the operation and maintenance plan was not followed;

8. A description of any changes in monitoring, processes, or controlssince the last reporting period;

9. A statement that the Owner or Operator, or personnel designated by the Owner or Operator, has, within the last two years, completed Environmental Compliance Training pursuant to section 93102.5(b);

10. The name, title, and signature of the Responsible Official who iscertifying the accuracy of the report; and

11. The date of the report.

Appendix 4 – Smoke Test for Chrome Tank Covers.

SMOKE TEST TO VERIFY THE SEAL INTEGRITY OF COVERS DESIGNED TO REDUCE CHROMIUM EMISSIONS FROM CHROME PLATING TANKS

Applicability and Principle

1. Applicability. This alternative method is applicable to all Hard Chrome Plating Operations where a Chrome Plating Tank cover is used on the Tank for reducing Hexavalent Chromium emissions.

2. Principle. During Chrome Plating Operations, bubbles of hydrogen and oxygen gas generated during the process rise to the surface of the Tank liquid and burst. Upon bursting, tiny droplets of Chromic Acid Mist become entrained in the air above the Tank. Because the Chrome Plating Tank cover completely encloses the air above the Tank, the Chromic Acid Mist either falls back into the solution because of gravity or collects on the inside walls of the Chrome Plating Tank cover and runs back into the solution. A semi-permeable membrane allows passage of the hydrogen and oxygen out of the Chrome Plating Tank cover. A lit smoke device is placed inside the Chrome Plating Tank cover to detect Leaks at the membrane, joints, or seals.

Apparatus

3. Smoke device. Adequate to generate 500 to 1000 ft^3 of smoke/20 ft^2 of Tank surface area (e.g. Model #1A=15 SECONDS from Superior Signal, New York).

4. Small container. To hold the smoke device.

Procedure

5. Place the small container on a stable and flat area at the center of the Chrome Plating Tank cover (you can use a board and place it on the busbars). Place the smoke device inside the container. After lighting the smoke device, quickly close the access door to avoid smoke from escaping. Let the smoke device completely burn; the entire space under the Chrome Plating Tank cover will now be filled with the smoke. Observe for Leaks of smoke from each seal, joint, and membrane of the Chrome Plating Tank cover. Record these observations, including the locations and a qualitative assessment of any Leaks of smoke.

   When all seals, joints, and membranes have been observed, evacuate the unit to remove the smoke from the Chrome Plating Tank cover.

Appendix 5 – District Breakdown Rules.

DISTRICT	RULE #	RULE NAME
Amador	516	Breakdown Conditions
Antelope	430	Breakdown Provisions
Bay Area	1	General Provisions and Definitions
Butte	266	Upset and Breakdown Conditions
Calaveras	516	Upset and Breakdown Conditions
Colusa	266	Upset and Breakdown Conditions
Eastern Kern	111	Equipment Breakdown
El Dorado	516	Upset Breakdown Conditions
Feather River	9.6	Equipment Breakdown
Glenn	95.2	Malfunction of Equipment
Great Basin	403	Breakdown
Imperial	111	Equipment Breakdown
Lake	Chapter III, Article II	Malfunction
Lassen	4:22	Breakdown Conditions
Mariposa	516	Upset and Breakdown Conditions
Mendocino	1-540	Equipment Breakdown
Modoc	2.12	Equipment Breakdown
Mojave	430	Breakdown Provisions
Monterey Bay	214	Breakdown Condition
North Coast	105	Enforcement & Penalty Actions: Section D - Equipment Breakdown
Northern Sierra	516	Upset and Breakdown Conditions
Northern Sonoma	540	Equipment Breakdown
Placer	404	Upset Conditions Breakdown. Scheduled Maintenance
Sacramento	602	Breakdown Conditions: Emergency Variance
San Diego	98	Breakdown Conditions: Emergency Variance
San Joaquin	1100	Equipment Breakdown
San Luis Obispo	107	Breakdown or Upset Conditions andEmergency Variances
Santa Barbara	505	Breakdown Conditions
Santa Barbara	506	Emergency Variances for Breakdowns
Shasta	3:10	Excess Emissions

DISTRICT	RULE #	RULE NAME
Siskiyou	2.12	Equipment Breakdown (Siskiyou)
South Coast	430	Breakdown Provisions
South Coast	517	Emergency Variance Procedures - Breakdowns
Tehama	4:17	Upset or Breakdown Conditions
Tuolumne	516	Upset and Breakdown Conditions
Ventura	32	Breakdown Conditions; Emergency Variances
Yolo Solano	5.2	Upset/Breakdown Conditions: Emergency Variance

Appendix 6 – Alternative Requirements for Enclosed Hexavalent Chromium Plating Tanks – Mass Emission Rate Calculation Procedure.

Mass Emission Rate shall be calculated using the following equation:

MAMER = ETSA x K x 0.015 mg/dscm

Where:

MAMER = the alternative emission rate for Enclosed Hexavalent Chromium Plating Tanks in mg/hr.

ETSA = the Hexavalent Chromium Plating Tank surface area in squarefeet (ft^2).

K = a conversion factor, 425 dscm/(ft^2x hr).

Appendix 7 – Surface Tension Procedure for a Stalagmometer.

The Stalagmometer must first be properly cleaned before being used for the first time and after a period of storage. Properly clean the Stalagmometer using the following procedure:

1. Set up the Stalagmometer, in its stand, inside of a fume hood.

2. Place a clean 150 mL beaker underneath the Stalagmometer, then fillwith reagent grade concentrated nitric acid. Immerse bottom tip (approximately ½") of the Stalagmometer into the beaker.

3. Squeeze rubber bulb and pinch at the arrow up (1) position to collapse.Place bulb end securely on top end of the Stalagmometer. Carefully draw the nitric acid by pinching the arrow up (1) position until the level is above the top etched line.

4. Allow nitric acid to remain in the Stalagmometer for 5 minutes and then carefully remove the bulb, allowing the acid to completely drain.

5. Fill a clean 150 mL beaker with distilled or deionized water. Using the rubber bulb per the instructions in Step #3, rinse and drain the Stalagmometer with deionized or distilled water until the inside is "water break" free.

6. Fill a clean 150 mL beaker with isopropyl alcohol. Again, using therubber bulb per Step #3, rinse and drain the Stalagmometer twice with isopropyl alcohol and allow the Stalagmometer to dry completely.

7. Take a sample of the solution to be tested and adjust the solution toroom temperature. Measure the specific gravity and record the reading.

8. Fill a clean 150 mL beaker with the solution to be tested. Immerse the bottom end of the Stalagmometer into the beaker. Fill the Stalagmometer per the instructions in Step #3, making sure that the solution level is above the top etched line.

9. Raise the Stalagmometer so that the bottom end is completely out ofsolution. Remove bulb and immediately place a finger on the top end of the Stalagmometer. Carefully use the finger to bring the solution level down to the top etched line. Do not release the finger at this time.

10. "Wipe" the excess solution on the lower tip by touching it against theside of the beaker.

11. Release fingertip to allow solution to drain and count the number of drops until the level reaches the bottom etched line.

Calculations for Surface Tension

$$\text{Surface Tension (dynes/cm)} = \frac{Sw * Nw * D}{N * Dw}$$

Sw = Surface Tension of water at 25°C or 77°F (72.75 dynes/cm)
Nw = water drop number etched on instrument
D = measured specific gravity (g/ml)
N = # of solution drops
Dw = water density (1.0 g/mL)

PRECAUTIONS:

1. Make sure the Stalagmometer is clean (no sludge or film)

2. No chips, cracks, etc.

3. Vertical placement

4. No vibration

5. 20 drops per minute rate (10 dynes/cm) +/- 1 drop per minute

6. Performance checked with water. The number of drops etched on theinstrument shall be verified with deionized water to +/- 1 drop. If the number of drops are not within 1 drop, then the Stalagmometer shall be cleaned. If the cleaning process does not bring the drop count within 1 drop of the etched number on the instrument, then the operator shall:

    a) Purchase a new Stalagmometer; or

    b) Use the number of drops recorded for the distilled water run as(Nw) in the equation instead of the number of drops etched on the Stalagmometer

7. Sample at room temperature

Appendix 8 – Information to be Submitted to the District when Requesting Alternative Method(s) of Compliance Pursuant to Section 93102.14.

The Owner or Operator of a Facility applying for approval of an alternative method of compliance must submit to the District the following information:

1. The specific requirement(s) in Table 93102.4 related to Chemical Fume Suppressants or in section 93102.4(f)(2) that the Owner or Operator is proposing to replace with alternative method(s) of compliance.

2. A demonstration that the alternative method(s) will achieve an equal or greater amount of reductions in Hexavalent Chromium emissions than would be achieved with direct compliance with the requirement(s) that the alternative method(s) seek to replace.

3. Calculations based on scientifically valid risk assessment methodologies demonstrating that the alternative method(s) result in reducing risk equally or greater than the risk reduction that would be achieved by direct compliance with the requirement(s) that the alternative method(s) seek to replace.

4. Documentation which demonstrates that the reductions to be achieved by each of the alternative compliance methods included in the request are Enforceable, including an operation and maintenance plan, an inspection and maintenance schedule, a recordkeeping plan, and a proposed method of verification (e.g. a Source Test) for each alternative method of compliance.

5. Proposed timeline for implementation of each alternative method(s) of compliance.

Appendix 9 – Tier II and Tier III Hexavalent Chromium Tank Thresholds.

1. To be considered a Tier II Tank, Hexavalent Chromium concentrations must remain in the range listed in the second column of the table below for the specified temperature. A Tank that exceeds the applicable Hexavalent Chromium concentration for Tier II tanks shall be considered a Tier III Tank.

Temperature (° F)	Tier II Tank Hexavalent Chromium Concentration (ppm)	Tier III Tank Hexavalent Chromium Concentration (ppm)
140 to <145° F	5,200 to <10,400	≥10,400
145 to <150° F	2,700 to <5,500	≥5,500
150 to <155° F	1,400 to <2,900	≥2,900
155 to <160° F	700 to <1,600	≥1,600
160 to <165° F	400 to <800	≥800
165 to <170° F	180 to <400	≥400
≥170° F	≥100 to <200	≥200

2. Chrome Plating Tanks with Hexavalent Chromium concentration greater than 1,000 ppm shall be considered a Tier III Tank regardless of operating temperature.

3. Air sparged Tanks with a Hexavalent Chromium concentration greater than 1,000 ppm shall be considered a Tier III Tank regardless of operating temperature.

4. One Tier III Tank at a Facility shall not be subject to the requirement in section 93102.4(f)(2) to vent a Tier III Tank to an Add-on Air Pollution Control Device if the Tank meets the following requirements:

    a) The surface area is less than or equal to four square feet;

    b) The Hexavalent Chromium concentration is less than or equal to 11,000 ppm;

    c) The Tank is operated and permitted at less than or equal to 210° F;

    d) The Tank is operated at a temperature between 170-210° F for less than or equal to two and one-half (2.5) hours per week with a temperature data logger logging the duration of time and temperature of the tank; and

    e) The Tank complies with the Tank cover requirements in section 93102.4(f).