

## **Final Regulation Order**

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

Date of Hearings: January 26-27, 2023, May 25, 2023

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

[Note: The proposed modifications to the regulatory language are shown in underline to indicate the additions and ~~strikethrough~~ to indicate the deletions.]

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~~Plating~~ and Chromic Acid Anodizing                          Facilities~~Operations~~.**

The Airborne Toxic Control Measure for Chromium Electroplating~~Plating~~ and Chromic Acid Anodizing Facilities~~Operations~~ (ATCM) is contained in sections 93102 through 93102.16. ~~The ATCM is organized as follows:~~

~~Sections 93102 through 93102.3 specify the applicability of the ATCM, exemptions, and definitions. Section 93102.4 sets forth requirements for hexavalent chromium facilities that differ depending on whether a facility is an existing facility, a modified facility, or a new facility. Section 93102.5 sets forth various new requirements that apply to all facilities beginning October 24, 2007 (i.e., all existing, modified, and new facilities). Section 93102.6 contains special provisions that apply only to enclosed hexavalent chromium electroplating facilities and facilities that perform electroplating using a trivalent chromium bath. Sections 93102.7 through 93102.14 contain additional requirements that apply to all facilities, unless an exception is provided in this ATCM. Most of the requirements in sections 93102.7 through 93102.14 have been in effect since 1998. Section 93102.15 sets forth requirements that apply to the manufacture, sale, supply, offer for sale, and use of chromium plating and chromic acid anodizing kits in California. There are nine appendices to the ATCM; these appendices are contained in section 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 CFR~~Code of Federal Regulations~~ Part 63 Subpart N.

## **§ 93102.1. Applicability.**

- (a) This regulation ~~ATCM~~ shall apply to:
- (1) The ~~Owner or Operator of any Facility performing hard chromium electroplating, decorative chromium electroplating, or chromic acid anodizing~~ Chrome Plating.
  - (2) Any person who sells, supplies, offers for sale, uses, or manufactures for sale in California a ~~chromium electroplating or chromic acid anodizing kit~~ 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 U.S.C. United States Code, section 7401, et seq.) from the ~~District permitting authority of the district in which the major source is located.~~
- (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 CFR Code of Federal Regulations Part 63 Subpart N.

## **§ 93102.2. Exemptions.**

- (a) ~~This regulation shall not apply to process tanks associated with a chromium electroplating or chromic acid anodizing process, but in which neither chromium electroplating nor chromic acid anodizing is taking place. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, electro-stripping tanks and cleaning tanks. Tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this regulation. An example of such a tank is a chromium conversion coating tank where no electrical current is applied.~~
- (b) ~~The requirements of sections 93102.4 and 93102.11 do not apply during periods of equipment Breakdown, provided the provisions of the permitting agency District's Breakdown rules are met (see Appendix 65). 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 CFR Code of Federal Regulations Part 63 Subpart N.

**§ 93102.3. Definitions.**

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

- (1) *"Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~Device"* means equipment installed in the ventilation system of ~~chromium-electroplating and anodizing tanks~~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.
- ~~(2)~~(3) *"Air ~~p~~Pollution ~~e~~Control ~~t~~Technique"* means any method, such as an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~Device, ~~m~~Mechanical ~~f~~Fume ~~s~~Suppressant, or a ~~e~~Chemical ~~f~~Fume ~~s~~Suppressant, that is used to reduce chromium emissions from ~~chromium-electroplating and chromic acid anodizing tanks~~Chrome Plating Tanks.
- ~~(3)~~(4) *"Ampere-~~h~~Hours" or "Amp-Hr"* means the ~~integral of~~ electrical current applied to a Chrome ~~p~~Plating ~~t~~Tank (amperes) over a period of time (hours).
- ~~(4)~~(5) *"Annual ~~p~~Permitted ~~a~~Ampere-~~h~~Hours"* means the maximum allowable ~~chromium plating or anodizing~~Chrome Plating rectifier production in ~~a~~Ampere-~~h~~Hours, on an annual basis as specified in the ~~permitting agency's~~District's Permit to Operate for the ~~f~~Facility.
- ~~(5)~~(6) *"Area ~~s~~Source"* means any stationary ~~s~~Source of hazardous air pollutants that is not a ~~m~~Major ~~s~~Source ~~as defined in this part~~.
- (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.

~~(6)(9)~~ "Base Material" means the metal or metal alloy, or plastic that comprises the workpiecepart 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).

~~(7)(11)~~ "Bath Component" means the chemical composition or trade or brand name of each chemical component(s) in trivalent chromium plating baths in the Chrome Plating Bath. For trivalent chromium baths, the bath composition is proprietary in most cases. Therefore, the trade or brand name for each component(s) can be used; however, the chemical name of the wetting agent contained in that component must be identified.

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

~~(8)(13)~~ "Breakdown" means an unforeseeable impairment of an air pollution control equipment or related operating equipment which causes a violation of any eEmission Llimitation or restriction prescribed by a permitting agency'sDistrict'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~~ is not intentional or the result of negligence, or improper maintenance;
- (C) ~~is~~ is not a recurrent ~~b~~Breakdown of the same equipment; and,
- (D) ~~d~~Does not constitute a nuisance pursuant to section 41700 of the California Health and Safety Code, ~~with the burden of proving the criteria of this section placed upon the person seeking to come under the provisions of this law.~~

(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.

~~(9)~~(18) "Chemical ~~f~~Fume ~~s~~Suppressant" means any chemical agent that reduces or suppresses fumes or mists at the surface of an ~~electroplating or anodizing bath~~ 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.
- (12)(23) "Chrome Plating Tank" ~~Chromium electroplating or chromic acid anodizing tank~~ means the Tier III Tank ~~receptacle or container in which hard or decorative chromium electroplating or chromic acid anodizing~~ Chrome Plating occurs, along with the following accompanying internal and external ~~€~~ Tank components needed for chromium electroplating or chromic acid anodizing 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.
- (10)(24) "Chromic ~~a~~ Acid" means the common name for chromium anhydride ( $\text{CrO}_3$ ) under which chromium trioxide ( $\text{CrO}_3$ ) 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.
- (11)(25) "Chromic ~~a~~ Acid ~~a~~ Anodizing" means the electrolytic process by which an oxide layer is produced on the surface of a ~~b~~ Base ~~m~~ Material for functional purposes (e.g., corrosion resistance or electrical insulation) using a ~~€~~ Chromic ~~a~~ Acid solution. In ~~€~~ Chromic ~~a~~ Acid ~~a~~ Anodizing, the part to be anodized acts as the anode in the electrical circuit, and the ~~€~~ Chromic ~~a~~ 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.
- (13)(27) "Composite ~~m~~ Mesh-~~p~~ Pad ~~s~~ System" or "CMP" means an ~~a~~ Add-on ~~a~~ Air ~~p~~ Pollution ~~€~~ Control ~~d~~ 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.

(14)(30) "~~Decorative chromium electroplating~~Chrome Plating" means the process by which a thin layer of chromium (typically 0.003 to 2.5 micrometers) is electrodeposited on a ~~base metal, plastic, or undercoating material~~Base Material to provide a bright surface with wear and tarnish resistance. In this process, the ~~part(s)~~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<sup>2</sup>) for total plating times ranging between 0.5 to 5 minutes.

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

(15)(32) "Dragout" means fluid containing hHexavalent eChromium that adheres to parts when they are removed from a tTank.

(16) "~~Electroplating or anodizing bath~~" 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 electroplating metal out of the solution onto a workpiece or for oxidizing the base material.

(17)(33) "Emission lLimitation" means:

(A) fFor tTrivalent eChromium pPlating, the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm).

(B) For hHexavalent eChromium pPlating or anodizing, the allowable sSurface tTension expressed in dynes per centimeter (dynes/cm) or the milligrams of hHexavalent eChromium per aAmpere-hHour (mg/aAmp-hHr) of electrical charge applied to the ~~chromium electroplating or anodizing tank~~Chrome Plating Tank, or the concentration of Hexavalent eChromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm).

(18)(34) "Enclosed hHexavalent eChromium electropPlating tTank" means a hard, decorative or chromic acid anodizing

~~tank~~Chrome Plating Tank using a ~~h~~Hexavalent cChromium solution that is equipped with an enclosing hood and ventilated ~~at half the rate or less than that of a ventilated open surface tank of the same surface area as specified by the manufacturer.~~

~~(19)~~(35) *"Enclosed s*Storage aArea" 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.

~~(20)~~(37) *"Executive Officer"* means the Executive Officer of ~~the~~CARBAir Resources Board, or his or her delegate.

~~(21)~~(38) *"Existing f*Facility" means a fFacility that is in operation before ~~October 24, 2007~~January 1, 2024.

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

~~(22)~~(40) *"Facility"* means the ~~m~~Major or ~~a~~Area sSource at which ~~chromium electroplating or chromic acid anodizing~~Chrome Plating is performed, including and/or any sSource or group of sSources 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 ~~p~~Person (or by ~~p~~Persons under common control), or an outer continental shelf (OCS) Ssource as determined in 40 CFRCode of Federal Regulations Ssection 55.2, as last amended September 2, 1997.

~~(23)~~(41) *"Fiber-b*Bed mMist eEliminator" means an ~~a~~Add-on aAir ~~p~~Pollution control device that removes particles from a gas stream through the mechanisms of inertial impaction and Brownian diffusion.

~~(24)~~(42) *"Foam b*Blanket" means the type of ~~c~~Chemical fFume suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution. A fFoam bBlanket does not lower surface tension of a

liquid.

~~(25)~~(43) *"Fresh ~~w~~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.

~~(26)~~(44) *"Fugitive ~~d~~Dust"* means any solid particulate matter that may contain ~~h~~Hexavalent ~~e~~Chromium that has the potential to become airborne by natural or man-made activities. "Fugitive ~~d~~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.

~~(27)~~(47) *"Hard ~~chromium electroplating or industrial chromium electroplating~~Chrome Plating"* means a process by which a thick layer of chromium (typically greater than 1.0 micrometers) is electrodeposited on a ~~h~~Base ~~m~~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 ~~part~~Base Material serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. The ~~h~~Hard ~~chromium~~Chrome ~~electroplating~~Plating process is performed at current densities typically ranging from 1,600 to 6,500 Amp/m<sup>2</sup> for total plating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness. This definition also includes Continuous Passivation.

~~(28)~~(48) *"Hexavalent ~~e~~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.

- ~~(29)~~(51) *"High Efficiency Particulate Arrestor (HEPA) fFilter"*  
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.
- ~~(30)~~(54) *"Initial sStart-uUp"* means the first time a nNew fFacility  
begins production, ~~or the first time a modified chromium-~~  
~~plating or anodizing tank~~Chrome Plating Tank that has  
undergone a Modification begins operating at a mModified  
fFacility, or the first time a Trivalent Chromium Plating Tank  
begins operation. ~~If such production or operation occurs~~  
~~prior to October 24, 2007, the date of "Initial Startup" is~~  
~~October 24, 2007. "Initial Start-uUp" does not include~~  
operation solely for testing of equipment or subsequent  
start-up of permit units following malfunction or shutdown.
- ~~(31)~~ *"Large, hard chromium electroplating facility"* means a  
facility that performs hard chromium electroplating and emits  
greater than or equal to 10 pounds per year (lbs/yr)  
~~controlled emissions of hexavalent chromium.~~
- ~~(32)~~(55) *"Leak"* means the release of chromium emissions from  
any opening in the emission collection system prior to exiting  
the emission control deviceTank 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.
- ~~(33)~~(57) *"Major sSource"* means any stationary sSource, or group  
of stationary sSources 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.
- ~~(34)~~ *"Maximum cumulative potential rectifier capacity"* means the  
summation of the total installed rectifier capacity associated  
with the hard chromium electroplating tanks at a facility,  
~~expressed in amperes, multiplied by the maximum potential~~

~~operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70 percent of the total operating time. The maximum potential operating schedule is based on operating 24 hours per day, 7 days per week, 50 weeks per year.~~

~~(35)(58)~~ *"Mechanical fFume sSuppressant"* means any device, including but not limited to pPolyballs, that reduces fumes or mist at the surfaces of an electroplating or anodizing bath a Chrome Plating Bath by direct contact with the surface of the bBath.

~~(36)~~ *"Medium, hard chromium electroplating facility"* means a facility that performs hard chromium electroplating and emits greater than 2 pounds per year (lbs/yr) controlled emissions but less than 10 pounds per year (lbs/yr) controlled emissions of hexavalent chromium.

~~(37)(59)~~ *"Modification"* means either:

(A) aAny physical change in, change in method of operation of, or addition to an existing permit unit that requires an application for a permit an authority to construct and/or operate and results in an increase in hHexavalent eChromium 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. aAn increase in the hours of operation; or
2. aA change in ownership of a fFacility; or
3. aAn increase in the annual aAmpere-hHours, unless such increase will cause a fFacility to be subject to a different requirement in Table 93102.4 of section 93102.4.

(B) tThe addition of any new chromium plating or anodizing tankChrome Plating Tank at an eExisting fFacility which increases hHexavalent eChromium emissions; or

(C) tThe fixed capital cost of the replacement of components exceeding 50 percent of the fixed capital cost that would be required to construct a comparable nNew fFacility.

(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.

~~(38)~~(60) "Modified fFacility" means any fFacility which has undergone a mModification on or after January 1, 2024.

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

~~(39)~~(62) "New fFacility" means any fFacility that begins initial operations on or after October 24, 2007January 1, 2024. "New Facility" does not include the installation of a new chromium plating or anodizing tankChrome Plating Tank at an eExisting fFacility or the mModification of an eExisting fFacility.

~~(40)~~ "Operating parameter value" means a minimum or maximum value established for a control device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator is in continual compliance with the applicable emission limitation or standard.

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

~~(41)~~(64) "Owner or Operator" means a pPerson who is the eOwner or the eOperator of a fFacility performing hard-chromium electroplating, decorative chromium electroplating, or chromic acid anodizing.

~~(42)~~(65) "Packed-bBed sScrubber" or "PBS" means an aAdd-on aAir pPollution eControl dDevice consisting of a single or double packed-bed that contains packing media on which the eChromic aAcid droplets impinge.

~~(43)~~ "Permitting agency" means the local air pollution control or air quality management district.

~~(44)~~(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.
- ~~(45)~~(74) "Responsible eOfficial" 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 ~~p~~Person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such ~~p~~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 ~~p~~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 ~~Administrator~~District.
- (B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (C) For a municipality, state, ~~F~~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 ~~F~~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 ~~s~~Sources (as defined in this part) applying for or subject to a title V permit: "~~r~~Responsible ~~e~~Official" shall have the same meaning as defined in 40 ~~CFR~~Code of Federal Regulations Part 70 or federal title V regulations in this chapter (42 ~~U.S.C.~~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.

~~(46)~~ "School under construction" means any property that meets any of the following conditions:

- ~~(A)~~ construction of a school has commenced; or
- ~~(B)~~ a CEQA Notice for the construction of a school has been issued or
- ~~(C)~~ a school has been identified in an approved local government specific plan.

~~(47)~~(76) "Sensitive ~~r~~Receptor" means any residence including private homes, condominiums, apartments, and living



quarters; education resources such as ~~preschools and kindergarten through grade twelve (k-12)~~ Schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A ~~Sensitive~~ Receptor includes long-term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

(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.

~~(48) "Small, hard chromium electroplating facility" means a facility that performs hard chromium electroplating and emits less than or equal to 2 pounds per year (lbs/yr) controlled emissions of hexavalent chromium.~~

~~(49)(78) "Source" means any chromium electroplating or chromic acid anodizing operation~~ Chrome Plating Operation and any equipment or materials associated with the selected associated ~~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.

~~(50)(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.

~~(51) "Substantial use" of an Authority to Construct means one or more of the following: (A) the equipment that constitutes the source has been purchased or acquired; (B) construction activities, other than grading or installation of utilities or foundations, have begun and are continuing; or (C) a contract to complete construction of the source within one year has been entered into.~~

~~(52)(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.

~~(53)~~(82) "Tank" means the structure or receptacle containing the electroplating or anodizing bathChrome Plating Bath or other liquid solution used in a Tier I Tank, Tier II Tank, Tier III Tank, or Associated Process Tank.

~~(54)~~(83) "Tank eOperation" means the time in which current and/or voltage is being applied to aChrome Plating Tank~~chromium electroplating tank or a chromic acid anodizing 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.

~~(55)~~(85) "Tensiometer" means an instrument used to measure the sSurface tTension 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 sSurface tTension.

(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.

~~(56)~~(89) "Trivalent eChromium" means the form of chromium in a valence state of +3.

~~(57)~~(90) "Trivalent eChromium pprocessPlating" means the process

used for electrodeposition of a thin-layer of chromium onto a base material using a trivalent chromium solution instead of a chromic acid 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 CFR Code of Federal Regulations Part 63 Subpart N.

**§ 93102.4. Requirements for Existing, Modified, and New Chrome Plating Facilities that Use Hexavalent Chromium Plating and Chromic Acid Anodizing Facilities.**

This section sets forth requirements that apply to all Facilities using Hexavalent Chromium for Chrome Plating Operations, except for those Facilities that only operate Enclosed Hexavalent Chromium Plating Tanks.

~~This section 93102.4 sets forth requirements that apply to all hexavalent chromium hard and decorative chromium electroplating and chromic acid anodizing facilities, except for facilities subject to section 93102.6 (i.e., facilities that perform electroplating using a trivalent chromium bath or are facilities with enclosed hexavalent chromium electroplating tanks). The requirements differ depending on whether a facility is an existing facility, a modified facility or a new facility. Additional requirements that apply to all facilities (i.e., all existing, modified, and new facilities) are contained in section 93102.5, sections 93102.7 through 93102.14 and section 93102.16.~~

~~Subsection (a) contains the requirements to reduce hexavalent chromium emissions that were in effect before October 24, 2007. The limits in subsection (a) shall remain in effect for a facility until the limits in subsection (b) become effective. Once the limits in subsection (b) become effective for an individual facility the limits in subsection (a) no longer~~

apply.

~~The limits in subsection (b) are phased in depending on the amount of annual permitted ampere hours and the distance to the nearest sensitive receptor. Depending on the facility, limits in subsection (b) become effective on April 24, 2008, October 24, 2009, October 24, 2010, or October 24, 2011.~~

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

(a) ~~Requirements that Apply to Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities.~~

~~An existing facility is a facility that is in operation before October 24, 2007.~~

~~In addition to the limits specified in this subsection (a) all facilities (i.e., all existing, modified, and new facilities) must comply with the applicable provisions contained in section 93102.5, sections 93102.7 through 93102.14, and section 93102.16.~~

(1) ~~Limits that Apply to Existing Hard Chromium Electroplating Facilities Until the Limits in subsection 93102.4(b) Become Effective.~~

~~During tank operation, each owner or operator of an existing facility shall control hexavalent chromium emissions discharged to the atmosphere from that facility by reducing the hexavalent chromium emissions from the add-on air pollution control device(s) serving the electroplating tank(s) as identified below.~~

(A) ~~Limits that Apply Until the Limits in subsection 93102.4(b) Become Effective for Existing Hard Chromium Electroplating Facilities that Began Operations on or before December 16, 1993.~~

Facility Size	Controlled Emissions <sup>1</sup> (lbs/yr)	Requirement		
		≤ 60 million amp-hrs <sup>2</sup>	> 60 million amp-hrs <sup>2</sup>	
			Option 1	Option 2 <sup>3</sup>
Large	≥ 10 lbs/yr	≤ 0.006 mg/amp-hr	≤ 0.006 mg/amp-hr	≤ 0.006 mg/amp-hr

Facility Size	Controlled Emissions <sup>1</sup> (lbs/yr)	Requirement		
		≤ 60 million amp-hrs <sup>2</sup>	> 60 million amp-hrs <sup>2</sup>	
			Option 1	Option 2 <sup>3</sup>
Medium	< 10 lbs/yr but > 2 lbs/yr	≤ 0.03 mg/amp-hr	≤ 0.006 mg/amp-hr	≤ 0.03 mg/amp-hr and 0.015-mg/dsem
Small	≤ 2 lbs/yr	≤ 0.15 mg/amp-hr	≤ 0.03 mg/amp-hr	≤ 0.15 mg/amp-hr and 0.015-mg/dsem

<sup>1</sup>—combined hexavalent or total chromium emissions from hard chromium plating operations

<sup>2</sup>—maximum cumulative potential rectifier capacity or usage limit

<sup>3</sup>—“Option 2” is an alternative emission limitation for small and medium facilities that elect to demonstrate compliance with both a mg/amp-hr and a mg/dsem requirement

(B) — ~~Limits that Apply Until the Limits in subsection 93102.4(b) Become Effective for Existing Hard Chromium Electroplating Facilities that Began Operations after December 16, 1993, and Before October 24, 2007.~~

Facility Size	Controlled Emissions <sup>1</sup> (lbs/yr)	Requirement	
		≤ 60 million amp-hrs <sup>2</sup>	> 60 million amp-hrs <sup>2</sup>
Large	≥ 10 lbs/yr	≤ 0.006 mg/amp-Hr	≤ 0.006 mg/amp-hr
Medium/ Small	< 10 lbs/yr	≤ 0.03 mg/amp-hr	≤ 0.006 mg/amp-hr

<sup>1</sup>—combined hexavalent or total chromium emissions from hard chromium plating operations

<sup>2</sup>—maximum cumulative potential rectifier capacity or usage limit

(C) — ~~Special Provisions that Apply for some Hard Chromium Electroplating Facilities Using Less than or Equal to 500,000 Ampere-hours per Year Until the Limits in subsection 93102.4(b) Become Effective.~~

The permitting agency may approve, on a case-by-case basis, alternative standards for hard chromium electroplating facilities using less than or equal to 500,000 ampere-hours per year. The operation must have been constructed on or before December 16, 1993. At a minimum, the facility must use a chemical

fume suppressant containing a wetting agent to lower the surface tension of the plating bath to at least 45 dynes per centimeter (dynes/cm) ( $3.1 \times 10^{-3}$  pound force per foot [lbf/ft]). Effective April 24, 2008, the chemical fume suppressant used by the facility must meet the criteria specified in section 93102.8 and the surface tension shall be maintained below the value specified in Table 93102.8. The permitting agency may require additional emission reduction techniques as necessary to reduce the public health impact of emissions from the operation. The owner or operator must comply with the applicable parameter monitoring [section 93102.9], recordkeeping [section 93102.12], and reporting [section 93102.13] requirements. If an emission reduction technique not identified in this rule is used, the owner or operator must submit a plan to the permitting agency describing the alternative technique and identifying appropriate monitoring, recordkeeping, and reporting requirements. The permitting agency, with U.S. EPA concurrence, shall approve this plan if equivalent results are obtained. Upon approval, the requirements identified in the plan shall be the applicable requirements under this regulation. The permitting agency may approve, on a case by case basis, alternative standards for hard chromium electroplating facilities using less than or equal to 500,000 ampere hours per year. The operation must have been constructed on or before December 16, 1993. At a minimum, the facility must use a chemical fume suppressant containing a wetting agent to lower the surface tension of the plating bath to at least 45 dynes per centimeter (dynes/cm) ( $3.1 \times 10^{-3}$  pound force per foot [lbf/ft]). Effective April 24, 2008, the chemical fume suppressant used by the facility must meet the criteria specified in section 93102.8 and the surface tension shall be maintained below the value specified in Table 93102.8. The permitting agency may require additional emission reduction techniques as necessary to reduce the public health impact of emissions from the operation. The owner or operator must comply with the applicable parameter monitoring [section 93102.9], recordkeeping [section 93102.12], and reporting [section 93102.13] requirements. If an emission reduction technique not identified in this

rule is used, the owner or operator must submit a plan to the permitting agency describing the alternative technique and identifying appropriate monitoring, recordkeeping, and reporting requirements. The permitting agency, with U.S. EPA concurrence, shall approve this plan if equivalent results are obtained. Upon approval, the requirements identified in the plan shall be the applicable requirements under this regulation.

~~(2) Requirements that Apply to Existing Hexavalent Decorative Chromium Electroplating and Chromic Acid Anodizing Facilities Until the Limits in subsection 93102.4(b) Become Effective.~~

~~During tank operation, each owner or operator of an existing decorative hexavalent chromium electroplating or chromic acid anodizing facility shall control hexavalent chromium emissions discharged to the atmosphere by meeting either of the requirements identified below.~~

Method of Compliance	Requirement
<del>1. add-on air pollution control equipment, or chemical fume suppressants, or mechanical fume suppressants (i.e. polyballs)</del>	<del><math>\leq 0.01</math> milligrams per dry standard cubic meter of air (mg/dscm) (<math>4.4 \times 10^{-6}</math> gr/dscf)</del>
<del>2. chemical fume suppressants containing a wetting agent<sup>1</sup></del>	<del><math>\leq 45</math> dynes per centimeter (dynes/cm) (<math>3.1 \times 10^{-3}</math> pound force per foot [lbf/ft])</del>

<sup>1</sup> ~~Effective April 24, 2008, the chemical fume suppressant used by the facility must meet the criteria specified in section 93102.8 and the surface tension shall be maintained below the value specified in Table 93102.8.~~

~~(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.

~~(b)(c)~~ Limits that Apply to All Existing Chrome Plating Tanks that use Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Facilities After October 24, 2007.

- (1) During ~~the~~ Tank(s) ~~operation~~, each ~~owner or operator of~~ an existing hexavalent chromium facility shall control ~~the~~ Hexavalent ~~chromium~~ emissions discharged to the atmosphere 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 ~~Limits~~Limitation for Existing Chrome Plating Tanks**

<b>Sensitive Receptor Distance<sup>1</sup></b>	<b>Annual Permitted Ampere-Hours</b>	<b>Emission Limitation</b>	<b>Effective Date</b>
≤ 330 feet	≤ 20,000	Use Chemical Fume Suppressants as specified in section 93102.8 <sup>2</sup>	<del>April 24, 2008</del>
≤ 330 feet	> 20,000 and ≤ 200,000	0.0015 milligrams/ <del>a</del> Ampere-hHour as measured after <del>a</del> Add-on <del>a</del> Air <del>p</del> Pollution <del>e</del> Control <del>d</del> Device(s)	<del>October 24, 2010</del>
≤ 330 feet	> 200,000	0.0015 milligrams/ <del>a</del> Ampere-hHour as measured after <del>a</del> Add-on <del>a</del> Air <del>p</del> Pollution <del>e</del> Control <del>d</del> Device(s) <sup>3</sup>	<del>October 24, 2009</del>
> 330 feet	≤ 50,000	Use Chemical Fume Suppressants as specified in section 93102.8 <sup>2</sup>	<del>April 24, 2008</del>
> 330 feet	> 50,000 and ≤ 500,000	0.0015 milligrams/ <del>a</del> Ampere-hHour as measured after <u>Add-on Air Pollution Control Device(s)</u>	<del>October 24, 2011</del>
> 330 feet	> 500,000	0.0015 milligrams/ <del>a</del> Ampere-hHour as measured after <del>a</del> Add-on <del>a</del> Air <del>p</del> Pollution <del>e</del> Control <del>d</del> Device(s) <sup>3</sup>	<del>October 24, 2009</del>

<sup>1</sup> ~~Distance shall be measured as specified in section 93102.4(b)(2)(A).~~

<sup>1</sup> Sensitive receptor distance is the most current distance between the Facility and the nearest sensitive receptor that is recorded with the District.

<sup>2</sup> Alternatively, a ~~f~~Facility may install an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~Device(s) that controls emissions to below 0.0015 milligrams per ~~a~~Ampere-hHour.

<sup>3</sup> When annual emissions exceed 15 grams, a ~~s~~Site-~~s~~Specific ~~r~~Risk ~~a~~Analysis must be conducted by the ~~e~~Owner or ~~e~~Operator in accordance with the ~~permitting agency's~~District's procedures, unless a ~~s~~Site-~~s~~Specific ~~r~~Risk ~~a~~Analysis has already been conducted and approved by the ~~permitting agency~~District. The analysis shall be submitted to the ~~permitting agency~~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).

~~(2) Demonstrating Compliance with the Emission Limitation in Table 93102.4~~

~~(A) Distance to the nearest sensitive receptor shall be submitted to the permitting agency. The measurement shall be provided to the permitting agency within 30 days of October 24, 2007.~~

~~1. For facilities that do not have an add-on air pollution control device on October 24, 2007, the measurement shall be the distance, rounded to the nearest foot, from the edge of the hexavalent chromium plating or anodizing tank nearest the sensitive receptor to the property line of the nearest sensitive receptor that exists on October 24, 2007.~~

~~2. For facilities with an add-on air pollution control device on October 24, 2007, 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 that exists on October 24, 2007.~~

~~(B) Facilities located within 330 feet of a sensitive receptor and with annual permitted ampere hours greater than 20,000, and facilities beyond 330 feet of a sensitive receptor with more than 500,000 annual permitted ampere hours must use an add-on air pollution control device(s) to control hexavalent chromium emissions and demonstrate compliance with the emission limitation of 0.0015 milligrams/ampere hour as measured after the add-on air pollution control device.~~

~~(3) Requirements for Facilities Demonstrating Compliance by an Alternative Method or Methods~~

~~As provided in Health and Safety Code Section 39666(f), the owner or operator of a facility may submit to the permitting agency an alternative method, or methods, that will achieve an equal, or greater amount of reduction in hexavalent chromium emissions and an equal, or greater reduction in risk than would be achieved by direct compliance with the requirements of section 93102.4(b)(1) and (b)(2).~~

~~(A) The information contained in Appendix 9 of~~

~~section 93102.16 must be submitted to the permitting agency.~~

- ~~(B) — To be approved by the permitting agency the owner or operator must demonstrate that the alternative method(s) is enforceable, provides an equal, or greater hexavalent chromium emission reduction, and provides an equal, or greater risk reduction than would direct compliance with the requirements of section 93102.4(b)(1) and (b)(2).~~
- ~~(C) — Upon approval of the method(s) the owner or operator must implement the approved method(s) within the time periods specified of section 93102.4(b)(1).~~
- ~~(D) — A facility operating under an approved alternative method(s) must comply with the requirements set forth in sections 93102.5, 93102.7, and 93102.9 through 93102.14, and 93102.16.~~

~~(c) — *Requirements for Modified Hexavalent Chromium Electroplating or Chromic Acid Anodizing Facilities.*~~

- ~~(1) — During tank operation, each owner or operator of a modified facility shall upon initial start up control hexavalent chromium emissions discharged to the atmosphere from that facility by reducing the hexavalent chromium emissions from the electroplating or anodizing tank(s) by:
  - ~~(A) — Using an add-on air pollution device(s) to control hexavalent chromium emissions, and~~
  - ~~(B) — Meeting an emission limit of 0.0015 milligrams per ampere-hour or less.~~~~
- ~~(2) — Prior to initial start up of a modified facility, when annual emissions of hexavalent chromium are expected to exceed 15 grams per year, the owner or operator shall conduct a site specific risk analysis in accordance with the permitting agency's procedures. The analysis shall be submitted to the permitting agency.~~
- ~~(3) — A facility is not required to comply with section~~

~~93102.4(c)(1)(A) if the facility is implementing an alternative method or methods that have been approved by the permitting agency as provided in section 93102.4(b)(3) and Health and Safety Code section 39666(f).~~

(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.

~~(d) — Requirements for New Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities Beginning October 24, 2007.~~

~~(1) — No person shall operate a new facility unless it is located outside of an area that is zoned for residential or mixed use and is located, as determined by the permitting agency, at least 1,000 feet from (A) the boundary of any area that is zoned for residential or mixed use, or (B) any school or school under construction.~~

- ~~(A) — A new facility shall be deemed to meet the requirements specified in this subsection (d)(1) if one of the following criteria is met, even if the facility does not meet the requirement at the time of initial startup (e.g., because of a zoning change that occurs after the authority to construct is issued):~~
- ~~1. — The requirements specified in this subsection (d)(1) are met at the time it is issued an authority to construct by the permitting agency, and substantial use of the authority to construct takes place within one year after it is issued; or~~
  - ~~2. — The requirements specified in this subsection (d)(1) are met at the time it is issued an authority to construct by the permitting agency, and substantial use of the authority to construct takes place before any zoning change occurs that affects the operation's ability to meet the requirement at the time of initial startup.~~
- ~~(2) — During tank operation, each owner or operator of a new facility shall control hexavalent chromium emissions discharged to the atmosphere from that facility by reducing the hexavalent chromium emissions from the electroplating or anodizing tank(s) by installing a HEPA add-on air pollution control device. The measured emission rate of hexavalent chromium shall be no more than 0.0011 milligrams per ampere hour as measured after the HEPA add-on air pollution control device.~~
- ~~(3) — Prior to initial start up the owner or operator of each new facility shall conduct a site specific risk analysis in accordance with the permitting agency's procedures. The analysis shall be submitted to the permitting agency.~~
- ~~(4) — Prior to initial startup, each new facility shall demonstrate to the permitting agency that the new facility meets the requirements specified in this subsection (d) of this section 93102.4.~~
- ~~(5) — A facility is not required to comply with the requirement in section 93102.4(d)(2) to install a HEPA add-on air pollution control device if the facility is implementing an alternative~~

~~method or methods that have been approved by the permitting agency as provided in section 93102.4(b)(3) and Health and Safety Code section 39666(f).~~

~~(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.~~

~~(e) Notification Requirements for New and Modified Facilities.~~

- ~~(1) Notification of Construction Reports.
  - ~~(A) No person may construct or modify a facility, such that it becomes a facility subject to sections 93102 to 93102.16, without submitting a notification of construction or modification to the permitting agency and receiving approval in advance to construct or~~~~

modify the facility.

~~(B) The contents of the Notification of Construction Report shall include the information contained in Appendix 4.~~

~~(2) *Alternative Notification Requirements:* Instead of complying with the requirements in subpart (e)(1)(A) of this subsection, a facility may fulfill these requirements by complying with the permitting agency's "New Source Review" requirements, provided similar information is obtained.~~

~~(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<sup>2</sup> 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 CFR Code of Federal Regulations Part 63 Subpart N.

**§ 93102.5. Additional Requirements that Apply to Existing, Modified, and New Hexavalent Chromium Plating or Chromic Acid Anodizing for Chrome Plating Facilities that Use Hexavalent Chromium Beginning October 24, 2007.**

~~Each owner or operator of a hexavalent chromium plating or chromic acid anodizing facility shall comply with the following requirements on or after the dates specified below:~~

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 before October 24, 2007, 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(s) meeting an the emission rate of 0.0015 milligrams per ampere-hour or less applicable to the Tank(s) as measured after the Add-on Air Pollution Control Device or unless;
- (2) The Facility is operating under an approved alternative method as provided in section 93102.4(b)(3)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.* ~~No later than October 24, 2009, and within every two years thereafter, The eOwner or eOperator of a fFacility shall ensure that chromium plating or chromic acid anodizing~~Chrome Plating eOperations are conducted under the direction of the eOwner or eOperator or current employee who is onsite and who has completed the Air Resources Board (ARB) CARB Compliance Assistance Training Course pertaining to chromium plating and chromic acid anodizing on Chrome Plating every two years.
- (1) ~~On or after October 24, 2009, eEnvironmental compliance and recordkeeping required by this ATCM shall be conducted only by under the supervision of persons who completed an CARB Compliance Assistance Training Course on Chrome Plating and who are onsite.~~
  - (2) In the event that all pPersons who have completed the CARB training classcourse are no longer associated with a fFacility, the eOwner or eOperator ~~may~~shall be responsible for supervising environmental compliance and recordkeeping required by this ATCM for a period of time not to exceed two years. The eOwner or eOperator shall ensure that, as soon as practicable, but not longer than two years, personnel complete the training specified in ~~subsection 93102.5(b).~~
  - (3) Environmental compliance training conducted by the South Coast Air Quality Management District ~~pursuant to Rule 1469~~on Chrome Plating shall fulfill the requirements of this subpart.
  - (4) ~~Nothing in this subsection 93102.5(b) shall absolve an owner or operator from complying with sections 93102-93102.16.~~
- (c) *Housekeeping requirements.* Beginning January 1, 2024, the following housekeeping practices shall be implemented: Effective April 24, 2008, housekeeping practices shall be implemented to reduce potential fugitive emissions of hexavalent chromium. At a minimum, the following practices shall be implemented:
- (1) Chromic aAcid powder or flakes, or other substances that may contain hHexavalent eChromium, shall be stored in a closed container in an eEnclosed sStorage aArea;.
  - (2) Chromic aAcid powder or flakes shall be transported from an eEnclosed sStorage aArea to the ~~electroplating or anodizing bath(s)~~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 hHexavalent eChromium that is spilled shall be cleaned up or contained within one hour after being spilled.
- (4) ~~Dragout from the tank(s) shall be minimized by implementing the following practices:~~
- (A) ~~Facilities with automated lines. Drip trays shall be installed between tanks so that the liquid does not fall through the space between tanks. Trays shall be placed such that the liquid is returned to the tank(s).~~
- (B) ~~Facilities without automated lines.~~
1. ~~Each electroplated or anodized part must be handled so that chromic acid is not dripped outside the electroplating tank.~~
  2. ~~Each facility spraying down parts over the electroplating or anodizing 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 returned to the electroplating or anodizing tank.~~
- (5)(4) Clean Weekly, using an Approved Cleaning Method, the following:
- (A) Surfaces within the eEnclosed sStorage aArea;
- (B) open fFloors in the Tank Process aArea;
- (C) wWalkways around the electroplating or anodizing tank(s), or Tier I, Tier II, or Tier III Tank(s);
- (D) Surfaces in the Building Enclosure or Tank Process Area; and
- (E) aAny other surfaces potentially contaminated with hHexavalent eChromium, that accumulates or potentially accumulates dust shall be cleaned at least once every seven days in one or more of the following manner: HEPA vacuumed, or hand wiped with a damp cloth, or wet mopped, or otherwise

~~cleaned as approved by the permitting agency, or shall be maintained with the use of non-toxic chemical dust suppressants.~~

- ~~(6) Buffing, grinding, or polishing areas within a facility shall be separated from the electroplating or anodizing operation by installing a physical barrier. The barrier may take the form of plastic strip curtains.~~
- ~~(7)(5) Store, dispose of, recover, or recycle Hexavalent Chromium or Hexavalent eChromium-containing wastes generated from the housekeeping activities in subsection (c) shall be stored, disposed of, recovered, or recycled using practices that do not lead to fEugitive dustEmissions 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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

**§ 93102.6. ~~Special Provisions~~Requirements that Apply Only to Facilities that Perform Electroplating Using a Trivalent Chromium Bath~~Plating or Enclosed Hexavalent Chromium Electroplating~~Plating Tanks.**

- (a) ~~Provisions that Apply to All Facilities that Perform Electroplating Using a Trivalent Chromium Bath~~Plating.
- (1) ~~During tank operation, each owner or operator of an existing, modified, or new facility shall control t~~Total chromium emissions from Trivalent Chromium Plating Tanks discharged to the atmosphere shall be controlled by meeting either: of the requirements identified below.
- (A) Meeting an Emission Limitation of  $\leq 0.01$  mg/dscm ( $4.4 \times 10^{-6}$  gr/dscf), and 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, and complying with the recordkeeping requirements in section 93102.12(h), and complying with the reporting requirements in sections 93102.12(h) and 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).

Method of Compliance	Requirement
add-on air pollution control equipment, or chemical fume suppressants, or mechanical fume suppressants (i.e. polyballs)	$\leq 0.01$ mg/dscm ( $4.4 \times 10^{-6}$ gr/dscf)
chemical fume suppressants containing a wetting agent	use wetting agent as bath ingredient and comply with recordkeeping and reporting provisions of sections 93102.12(i) and 93102.13(e).

- (2) ~~New facilities that perform electroplating using a trivalent chromium bath must conduct a facility wide site specific risk analysis in accordance with the permitting agency's procedures. The analysis shall be submitted to the permitting agency.~~

- (3)(2) An ~~e~~Owner or ~~e~~Operator that performs ~~electroplating~~ using ~~a~~ ~~T~~Trivalent ~~e~~Chromium ~~bath~~ ~~Plating~~ and ~~complying~~ complies with subsection (a)(1)(B) through use of a ~~chemical fume suppressant containing a w~~ Wetting ~~a~~ Agent shall not be required to comply with the requirements of sections ~~93102.4, 93102.5, 93102.7, 93102.8, 93102.9(b) through (f), 93102.10, 93102.11, 93102.12(a) through (fg), and 93102.12(hj).~~
- (4)(3) An ~~e~~Owner or ~~e~~Operator that performs ~~electroplating~~ using ~~a~~ ~~T~~Trivalent ~~e~~Chromium ~~bath~~ ~~Plating~~ and ~~complying~~ complies with the  $\leq 0.01$  mg/dscm limit in subsection (a)(1)(A) shall not be required to comply with the requirements of sections ~~93102.4, 93102.5, and 93102.8.~~
- (5)(4) If a ~~f~~Facility has ~~h~~Hexavalent ~~e~~Chromium Containing ~~t~~Tanks in addition to Tanks being used for Trivalent Chromium Plating ~~trivalent chromium tanks~~, the ~~h~~Hexavalent ~~e~~Chromium Containing ~~t~~Tanks must ~~comply~~ be in compliance with all of the applicable requirements of ~~the~~ this ATCM ~~relating to hexavalent chromium facilities that do not have enclosed tanks.~~
- (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 ~~Electroplating~~ Plating Tanks.*
- (1) The ~~e~~Owner or ~~e~~Operator of a ~~hexavalent chromium electroplating~~ ~~f~~Facility with ~~e~~Enclosed ~~h~~Hexavalent ~~e~~Chromium ~~p~~Plating ~~t~~Tank(s) shall control ~~h~~Hexavalent ~~e~~Chromium emissions from the ~~electroplating tank(s)~~ Enclosed Hexavalent Chromium Plating Tank(s) by:
- (A) Achieving a ~~h~~Hexavalent ~~e~~Chromium ~~e~~Emission ~~l~~Limitation of 0.015 mg/dscm from each ~~tank~~ Enclosed Hexavalent Chromium Plating Tank as measured after passage through the a ~~Add-on~~ a ~~Air~~ p ~~Pollution~~ e ~~Control~~ d ~~Device(s); or~~
- (B) Using a ~~e~~Chemical ~~f~~Fume ~~s~~Suppressant specified in section 93102.8, and maintaining the ~~s~~Surface ~~t~~Tension of the Chrome ~~p~~Plating ~~b~~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 ~~determined by using the calculation procedures~~ specified in Appendix 76.
- (2) The ~~Owner or Operator of an existing Facility~~ that has ~~only~~ Enclosed Hexavalent Chromium Plating Tank(s) must comply with all applicable requirements of this ATCM ~~except for the requirements set forth in section 93102.4.~~
- ~~(3) If a facility has hexavalent chromium plating tanks that are not enclosed in addition to enclosed hexavalent chromium tanks, the hexavalent chromium tanks that are not enclosed must comply with all the requirements of the ATCM related to hexavalent chromium facilities that do not have enclosed tanks.~~
- ~~(4) New facilities with enclosed hexavalent chromium plating tanks must comply with section 93102.4(d)(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 CFR Code of Federal Regulations Part 63 Subpart N.

#### **§ 93102.7. PerformanceSource Test Requirements and Test Methods.**

- (a) ~~Performance test~~Source Test requirements.
  - (1) ~~The following hexavalent chromium facilities must conduct a performance test~~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 ~~rate as specified in section 93102.4(c)(2); and section 93102.4(f)(2).~~
  - ~~(A) Existing facilities demonstrating compliance with a milligrams per ampere-hour emission limitation specified in Table 93102.4.~~
  - ~~(B) Facilities that undergo a modification after October 24, 2007.~~
  - ~~(C) New hexavalent chromium facilities complying with section 93102.4(d)(2) or section 93102.6(b)(1)(A) or (C).~~

~~(D) Facilities that submit an alternative compliance method or methods for approval as provided in section 93102.4(b)(3).~~

(2) Functional Chrome Plating~~New or modified f~~Facilities that undergo Modification(s) to Tier III Tanks that are not complete by January 1, 2026, must conduct the performance test required by this section 93102.7an initial Source Test on these Tank(s) no later than 60 days after i~~Initial s~~Start-up to demonstrate compliance with the applicable Hexavalent Chromium Emission Limitations in section 93102.4(e)(2)(B).

~~(3) Existing facilities must conduct the performance test required by this section 93102.7 no later than the applicable effective date contained in Table 93102.4.~~

~~(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 performance test~~Source Test must be conducted using one of the approved test methods specified in ~~subsection 93102.7(eb).~~ The h~~Hexavalent e~~Chromium emission rate shall be multiplied by the f~~Facility a~~Annual p~~Permitted a~~Ampere-h~~Hour usage to determine the annual emissions of h~~Hexavalent eChromium for the fFacility.

~~(5) Facilities do not need to conduct a performance test if the facility's annual permitted ampere-hour usage is  $\leq 20,000$  and the facility is located within 330 feet of a sensitive receptor or the facility's annual permitted ampere-hour usage is  $\leq 50,000$  and the facility is located more than 330 feet from a sensitive receptor that exists on October 24, 2007, and the facility is using chemical fume suppressants.~~

~~(6)~~(5) Trivalent e~~Chromium p~~Plating facilities meeting the mg/dscm emission rateEmission Limitation specified in section 93102.6(a)(1)(A) must conduct a performance testSource Test to demonstrate compliance with the total chromium emission rateEmission Limitation upon Initial Start-Up.

~~(b) Use of previously conducted performance test.~~

~~A performance test conducted after January 1, 2000 may be used to satisfy the requirements of this section 93102.7, so long as all of~~



the following criteria are met:

- (1) ~~The test demonstrated compliance with the applicable hexavalent chromium emission rate specified in Table 93102.4 of section 93102.4 for hexavalent chromium plating or chromic acid anodizing facilities, or 0.01 mg/dscm or less total chromium emission rate for trivalent chromium plating facilities, or 0.015 mg/dscm hexavalent chromium emission rate for facilities with enclosed hexavalent chromium electroplating tanks complying with section 93102.6(b)(1)(A), and~~
- (2) ~~The performance test was approved by the permitting agency, and~~
- (3) ~~The test is representative of the method to control emissions currently in use as of October 24, 2007, and~~
- (4) ~~The performance test was conducted using one of the approved test methods specified in subsection 93102.7(c).~~

~~(e)(b)~~ *Approved test methods*

- (1) ~~Emissions testing~~A Source Test shall be conducted with a minimum of three test runs in accordance with one of the following test methods:
  - (A) ~~California Air Resources Board~~CARB Test Method 425, last amended July 28, 1997, (section 94135, Title 17, California Code of Regulations (CCR)); ~~or~~
  - (B) U.S. EPA Method 306, (40 ~~CFR~~Code of Federal Regulations, Part 63 Appendix A) with or without ~~h~~Hexavalent eChromium 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 ~~h~~Hexavalent eChromium; 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 Electroplating and Anodizing~~Chrome Plating Tanks (See Appendix 54).
- (3) ~~Surface tension~~When using a tTensiometer, Surface Tension shall be measured in accordance with U.S. EPA Method 306B (40 ~~CFR~~Code of Federal Regulations, Part 63 Appendix A). ~~Surface tension~~When using a sStalagmometer, Surface Tension shall be

measured using the procedure set forth in Appendix 8Z, or an alternative procedure approved by the ~~permitting agency~~District.

- ~~(d)~~(c) *Pre-Test protocol.* Facilities subject to the provisions of section 93102.7(a) must submit a pre-test protocol to the ~~permitting agency~~District at least 60 days prior to conducting a ~~performance test~~Source Test. The pre-test protocol shall include the ~~performance test~~Source Test criteria ~~off~~for the ~~end user~~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.
- ~~(e)~~ *Test all emission points.* Each emission point subject to the requirements of this regulation must be tested unless a waiver is granted by U.S. EPA and approved by the ~~permitting agency~~.

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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

## **§ 93102.8. Chemical Fume Suppressants.**

Chemical ~~fume~~ sSuppressants 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~~ sSuppressants listed in Table 93102.8 shall be used to reduce the ~~surface tension~~ of the ~~electroplating or anodizing bath(s)~~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)
<del>Benchbrite CR 1800® Benchmark Products Fumetrol 21 LF2® Atotech U.S.A. (Hard Chrome Plating)</del>	<del>&lt;40</del> <u>≤ 30</u>	<del>&lt;35</del> <u>≤ 27</u>

Chemical Fume Suppressant and Manufacturer	Stalagmometer Measured Surface Tension (dynes/centimeter)	Tensiometer Measured Surface Tension (dynes/centimeter)
<del>Clepe-Chrome®</del> <del>MacDermid</del> <u>Dicolloy CRPF® ProCom LLC</u> (Decorative plating and Chromic Acid Anodizing)	$\leq 40 \leq 32$	$\leq 35 \leq 29$
<del>Fumetrol 140®</del> <del>Atotech U.S.A.</del> <u>HCA 8.4® Hunter Chemical LLC</u> (Decorative Chrome Plating and Chromic Acid Anodizing)	$\leq 40 \leq 25$	$\leq 35 \leq 22$
<del>HCA-6.28.4®</del> <u>Hunter Chemical LLC</u> (Hard Chrome Plating)	$\leq 32 \leq 33$	$\leq 28 \leq 30$
<del>HCA-4®</del> <del>Hunter Chemical LLC</del> <u>Macuplex STR NPFX® MacDermid</u> <u>Enthone Industrial Solutions</u> (Decorative Chrome Plating and Chromic Acid Anodizing)	$\leq 32$	$\leq 28 \leq 30$

- (b) *Alternative ~~Chemical Fume s~~Suppressants.* ~~Chemical Fume s~~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 s~~Suppressant if the following criteria are met:

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

~~(1)(2)~~ The ~~Chemical Fume s~~Suppressant has been ~~performance tested~~Source Tested under conditions that are representative of normal operations in a ~~h~~Hexavalent ~~Chromium electroplating or anodizing b~~Bath and demonstrated to reduce the ~~h~~Hexavalent ~~Chromium~~ emissions below 0.01 milligrams per ~~a~~Ampere-hHour; and

~~(2)(3)~~ In the ~~performance testing~~Source Testing, the ~~h~~Hexavalent ~~Chromium~~ emission rate of 0.01 milligrams per ~~a~~Ampere-hHour was achieved under conditions in which the ~~s~~Surface ~~t~~Tension did not exceed 45 dynes/cm, as measured by a ~~s~~Stalagmometer, or 35 dynes/cm, as measured by a ~~t~~Tensiometer.

- (c) A ~~e~~Chemical ~~f~~Eume ~~s~~Suppressant that is listed in ~~subsection~~ 93102.8(a) or that has been approved under ~~subsection~~ 93102.8(b) may no longer be used if the Executive Officer determines that the ~~e~~Chemical ~~f~~Eume ~~s~~Suppressant is no longer able to reduce the ~~h~~Hexavalent ~~e~~Chromium emission rate below 0.01 milligrams per ~~a~~Ampere-~~h~~Hour under conditions in which the ~~s~~Surface ~~t~~Tension does not exceed 45 dynes/cm, as measured by a ~~s~~Stalagmometer, or 35 dynes/cm, as measured by a ~~t~~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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

### **§ 93102.9. Parameter Monitoring Requirements.**

- (a) ~~Ampere-h~~Hours. Each ~~electroplating or anodizing tank~~Chrome Plating Tank, or group of ~~electroplating or anodizing tanks~~Chrome Plating Tanks, shall have installed a continuous recording, non-resettable, ~~a~~Ampere-~~h~~Hour meter that operates on the electrical power lines connected to the ~~t~~Tank or group of ~~t~~Tanks. A separate meter shall be hard-wired for each rectifier.
- (b) *Pressure drop*. The ~~e~~Owner or ~~e~~Operator shall continuously monitor the pressure drop across an ~~a~~Add-on Air Pollution ~~e~~Control ~~d~~Device such as a ~~e~~Composite ~~m~~Mesh-~~p~~Pad (CMP), ~~p~~Packed-~~b~~Bed ~~s~~Scrubber (PBS), a CMP/PBS, ~~f~~Fiber-~~b~~Bed ~~m~~Mist ~~e~~Eliminator, and a ~~High Efficiency Particulate Arrestor (HEPA)~~ ~~f~~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 ~~performance test~~Source Test to demonstrate compliance with the ~~e~~Emission ~~l~~Limitation for CMP, PBS, a CMP/PBS, and a ~~f~~Fiber-~~b~~Bed ~~m~~Mist ~~e~~Eliminator. The pressure drop shall be maintained within -1/2 times to +2 times the inches of water of the value established during the ~~performance test~~Source Test to demonstrate compliance with the ~~e~~Emission ~~l~~Limitation for HEPA ~~f~~Filters.
- (c) *Inlet velocity pressure*. The ~~e~~Owner or ~~e~~Operator shall continuously monitor the inlet velocity pressure of a ~~p~~Packed-~~b~~Bed ~~s~~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 ~~performance test~~Source Test to demonstrate compliance with the ~~e~~Emission ~~l~~Limitation.

(d) Surface ~~ε~~Tension.

- (1) The ~~ε~~Owner or ~~ε~~Operator of a ~~f~~Facility that is required to use a ~~ε~~Chemical ~~f~~Fume ~~s~~Suppressant as specified in section 93102.8 to comply with section 93102.4 shall measure and monitor the ~~s~~Surface ~~ε~~Tension of the ~~electroplating, or anodizing bath(s)~~Chrome Plating Bath(s) that contains a ~~ε~~Chemical ~~f~~Fume ~~s~~Suppressant listed in Table 93102.8 of section 93102.8 with either a ~~s~~Stalagmometer using the procedure in Appendix ~~8~~7 of section 93102.16 or a procedure approved by the ~~permitting agency~~District, or with a ~~ε~~Tensiometer using U.S. EPA Method 306B (40 ~~CFR~~Code of Federal Regulations, part 63, Appendix A). The ~~s~~Surface ~~ε~~Tension shall be maintained below the value required by section 93102.8. Surface ~~ε~~Tension shall be measured ~~d~~Daily for 20 ~~ε~~Operating ~~d~~Days, and ~~w~~Weekly thereafter as long as there is no violation of the ~~s~~Surface ~~ε~~Tension requirement. If a violation occurs, the measurement frequency shall return to ~~d~~Daily for 20 ~~ε~~Operating ~~d~~Days, and ~~w~~Weekly thereafter.
- (2) The ~~ε~~Owner or ~~ε~~Operator of a ~~f~~Facility using a ~~ε~~Chemical ~~f~~Fume ~~s~~Suppressant containing a ~~w~~Wetting ~~a~~Agent that is not required to use a ~~ε~~Chemical ~~f~~Fume ~~s~~Suppressant listed in Table 93102.8 of section 93102.8 shall measure and monitor the ~~s~~Surface ~~ε~~Tension of the ~~chromium- electroplating or chromic acid anodizing tank bath(s)~~Chrome Plating Bath(s) with either a ~~s~~Stalagmometer using the procedure in Appendix ~~8~~7 of section 93102.16 or a procedure approved by the ~~permitting agency~~District, or with a ~~ε~~Tensiometer using U.S. EPA Method 306B (40 ~~CFR~~Code of Federal Regulations, part 63, Appendix A). If the ~~s~~Surface ~~ε~~Tension is measured with a ~~s~~Stalagmometer, the ~~s~~Surface ~~ε~~Tension shall be maintained below 45 dynes/centimeter. If the ~~s~~Surface ~~ε~~Tension is measured with a ~~ε~~Tensiometer, the ~~s~~Surface ~~ε~~Tension shall be maintained below 35 dynes/centimeter. Surface ~~ε~~Tension shall be measured ~~d~~Daily for 20 ~~ε~~Operating ~~d~~Days, and ~~w~~Weekly thereafter as long as there is no violation of the ~~s~~Surface ~~ε~~Tension requirement. If a violation occurs, the measurement frequency shall return to ~~d~~Daily for 20 ~~ε~~Operating ~~d~~Days, and ~~w~~Weekly thereafter.
- (3) Facilities with an approved alternative method of compliance as specified in section 93102.4(b)(3)14 and

using ~~e~~Chemical ~~f~~Fume ~~s~~Suppressants as all or partial control of ~~h~~Hexavalent ~~e~~Chromium emissions must measure and monitor the ~~s~~Surface ~~t~~Tension of the ~~electroplating or anodizing bath~~Chrome Plating Bath ~~d~~Daily. The ~~s~~Surface ~~t~~Tension must be maintained at or below the ~~s~~Surface ~~t~~Tension measured during the ~~performance test~~Source Test.

- (e) *Foam ~~b~~Blanket thickness.* The ~~e~~Owner or ~~e~~Operator shall monitor the ~~f~~Foam ~~b~~Blanket thickness across the surface of the ~~electroplating or anodizing bath(s)~~Chrome Plating Bath(s). The ~~f~~Foam ~~b~~Blanket thickness shall be maintained consistent with the requirements established during the ~~performance test~~Source Test to demonstrate compliance with the ~~e~~Emission ~~l~~Limitation. Foam thickness shall be measured ~~h~~Hourly for 15 ~~e~~Operating ~~d~~Days, and ~~d~~Daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to ~~h~~Hourly for 15 ~~e~~Operating ~~d~~Days, and ~~d~~Daily thereafter.
- (f) *Mechanical ~~f~~Fume ~~s~~Suppressants.* The ~~e~~Owner or ~~e~~Operator shall visually inspect the ~~electroplating or anodizing bath(s)~~Chrome Plating Bath(s) for coverage comparable to the coverage during the ~~performance test~~Source Test ~~d~~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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

## § 93102.10. Inspection and Maintenance Requirements.

- (a) Chrome Plating Facilities using Hexavalent ~~e~~Chromium-  
~~electroplating and chromic acid anodizing facilities~~ 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 <del>m</del> Mesh- <del>p</del> Pad (CMP) <del>s</del> System, Packed- <del>b</del> Bed <del>s</del> Scrubber (PBS), or PBS/CMP	1. Visually inspect device to ensure that there is proper drainage, no unusual <del>e</del> Chromic <del>a</del> Acid buildup on the pads, and/or packed beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. <del>1/quarter</del> <u>Quarterly</u> .

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of <del>e</del> Chromic <del>a</del> Acid <del>m</del> Mist, and/or back portion of the chevron mist eliminator to ensure it is dry and there is no breakthrough of <del>e</del> Chromic <del>a</del> Acid <del>m</del> Mist.	2. <del>1/quarter</del> Quarterly.
	3. Visually inspect ductwork from <del>t</del> Tank to the Add-on Air Pollution <del>e</del> Control <del>d</del> Device to ensure there are no <del>l</del> Leaks.	3. <del>1/quarter</del> Quarterly.
	4. Perform washdown and/or add fresh makeup water to the packed bed when it is needed.	4. Per manufacturer.
Fiber- <del>b</del> Bed <del>m</del> Mist <del>e</del> Eliminator <sup>A</sup>	Same as number 1 for CMP/ <del>l</del> PBS, or PBS/CMP.	1. <del>1/quarter</del> Quarterly.
	Same as number 3 for CMP/ <del>l</del> PBS, or PBS/CMP.	2. <del>1/quarter</del> Quarterly.
	Same as number 4 for CMP/ <del>l</del> PBS, or PBS/CMP.	3. Per manufacturer.
High Efficiency Particulate Arrestor (HEPA) <del>f</del> Filter	1. Look for changes in the pressure drop.	1. <del>1/week</del> Weekly.
	2. Replace HEPA <del>f</del> Filter.	2. Per manufacturer's specifications, or <del>permitting-agency's</del> District's requirement.
<u>Enclosed Hexavalent Chromium Plating <del>t</del>Tanks covers [<del>f</del>Facilities complying with subject to subsection 93102.6(b)]</u>	1. Drain the air-inlet (purge air) valves at the end of each day that the <del>t</del> Tank is in operation.	1. <del>1/day</del> Daily.
	2. Visually inspect <u>Tank</u> access door seals and membranes for integrity.	2. <del>1/week</del> Weekly.
	3. Drain the evacuation unit directly into the <u>Chrome <del>p</del>Plating <del>t</del>Tank</u> or into the rinse <del>t</del> Tanks (for recycle into the <u>Chrome <del>p</del>Plating <del>t</del>Tank</u> ).	3. <del>1/week</del> 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. <del>1/month</del> Monthly.
	5. Visually inspect all clamps for proper operation; replace as needed.	5. <del>1/month</del> Monthly.

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	6. Clean or replace filters on evacuation unit.	6. <del>1/month</del> <u>Monthly</u> .
	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. <del>1/quarter</del> <u>Quarterly</u> .
	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 <del>f</del> resh <del>w</del> ater. 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.	<del>1/quarter</del> <u>Quarterly</u> .
Ampere- <del>h</del> our meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Stalagmometer/ Tensiometer	Calibrate and maintain per manufacturer's specifications.	Per manufacturer.
<u>Building Enclosure</u>	<u>Visually inspect for Breaches in Building Enclosure(s) required pursuant to section 93102.4(d).</u>	<u>Weekly</u>

<sup>A</sup> Inspection and maintenance requirements for the control device installed upstream of the ~~f~~iber-~~b~~ed ~~m~~ist ~~e~~liminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

- (b) Add-on ~~a~~ir ~~p~~ollution ~~e~~ontrol ~~d~~evice(s) that ~~is~~are custom designed for a specific operation shall ~~develop~~also include specific operating and maintenance requirements determined by the manufacturer. The requirements shall be submitted to the ~~permitting agency~~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 ~~CFR~~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 ~~e~~owner or ~~e~~operator subject to the



inspection and maintenance requirements of ~~subsections~~ 93102.10(a) and (b) shall prepare an operation and maintenance plan. For ~~m~~Major ~~s~~Sources, the plan shall be incorporated by reference into the ~~s~~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 ~~subsection~~ 93102.10(b) of this ATCM and include the following elements:

- (1) A standardized checklist to document the operation and maintenance of the ~~f~~Facility, the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~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 ~~e~~Owner or ~~e~~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 ~~e~~Owner or ~~e~~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 ~~e~~Owner or ~~e~~Operator should be documented in an addendum to the plan. In addition, the ~~e~~Owner or ~~e~~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 ~~b~~Breakdowns.* The operation and maintenance plan shall be revised as necessary to minimize ~~b~~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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

## **§ 93102.12. Recordkeeping Requirements.**

- (a) *Inspection records.* The ~~e~~Owner or ~~e~~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) ~~t~~Ihe device inspected,
  - (2) ~~t~~Ihe date and time of inspection,
  - (3) ~~a~~A brief description of the working condition of the device during the inspection,
  - (4) ~~m~~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) ~~a~~Actions taken to correct deficiencies found during the inspection.
- (b) ~~Performance test~~Source Test records. The ~~e~~Owner or ~~e~~Operator shall maintain test reports documenting the conditions and results of all ~~performance tests~~Source Tests.
- (c) *Monitoring data records.* The ~~e~~Owner or ~~e~~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 ~~actual~~ cumulative rectifier usage expended ~~during~~at the end of each month of the reporting period, and the total usage expended to date.
  - (2) *Pressure drop.* The ~~e~~Owner or ~~e~~Operator shall record the pressure drop ~~once a week~~Weekly.
  - (3) *Inlet Velocity Pressure.* The ~~e~~Owner or ~~e~~Operator shall record the inlet velocity pressure ~~w~~Weekly.
  - (4) *Surface ~~t~~Iension.*
    - (A) For Facilities that are required to use a ~~e~~Chemical ~~f~~Eume ~~s~~Suppressant as specified in section 93102.8 to comply with section 93102.4.;

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

- (B) ~~For f~~Facilities that are not required to use a ~~e~~Chemical ~~f~~Fume ~~s~~Suppressant as specified in section 93102.8 to comply with section 93102.4-;

The ~~e~~Owner or ~~e~~Operator shall record the ~~s~~Surface ~~t~~Tension ~~d~~Daily for 20 ~~e~~Operating ~~d~~Days, and ~~w~~Weekly thereafter as long as there is no violation of the ~~s~~Surface ~~t~~Tension requirement. If the ~~s~~Surface ~~t~~Tension of the ~~plating or anodizing bath~~Chrome Plating Bath exceeds 45 dynes/centimeter, as measured with a ~~s~~Stalagmometer, or exceeds 35 dynes/centimeter, as measured with a ~~t~~ensiometer, the ~~e~~Owner or ~~e~~Operator shall again record the ~~s~~Surface ~~t~~Tension ~~d~~Daily for 20 ~~e~~Operating ~~d~~Days, and ~~w~~Weekly thereafter.

- (C) Facilities with an approved alternative method of compliance as specified in section 93102.4~~(b)(3)~~14 and using ~~e~~Chemical ~~f~~Fume ~~s~~Suppressants as all, or partial control of ~~h~~Hexavalent ~~e~~Chromium emissions must record the ~~s~~Surface ~~t~~Tension of the ~~electroplating, or anodizing bath~~Chrome Plating Bath ~~d~~Daily. The ~~s~~Surface ~~t~~Tension must be maintained at or below the ~~s~~Surface ~~t~~Tension measured during the ~~performance-~~testSource Test.

- (5) *Mechanical ~~f~~Fume ~~s~~Suppressants*. Facilities with an approved alternative method of compliance as specified in section 93102.4~~(b)(3)~~14 and using ~~m~~Mechanical ~~f~~Fume ~~s~~Suppressants as all or partial control of ~~h~~Hexavalent ~~e~~Chromium emissions must record the coverage on the ~~electroplating, or anodizing bath~~Chrome Plating Bath ~~d~~Daily. Coverage shall be reported as a percentage of ~~b~~Bath surface area.
- (6) *Foam thickness*. The ~~e~~Owner or ~~e~~Operator shall record the foam thickness ~~h~~Hourly for 15 ~~e~~Operating ~~d~~Days, and ~~d~~Daily

thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to ~~h~~Hourly for 15 ~~e~~Operating ~~d~~Days, and ~~d~~Daily thereafter.

- (d) *Breakdown records.* The ~~e~~Owner or ~~e~~Operator shall maintain records of the occurrence, duration, and cause (if known) and action taken on each ~~b~~Breakdown.
- (e) *Records of excesses.* The ~~e~~Owner or ~~e~~Operator shall maintain records of exceedances of the ~~e~~Emission ~~l~~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 demonstrating facility size.~~* ~~Facility size for determining the applicable emission limitation in subsection 93102.4(a) is determined by the maximum cumulative potential rectifier capacity. However, a facility with a maximum cumulative potential rectifier capacity of 60 million amp-hr/yr or more may, at the option of the owner or operator, be considered small or medium if the actual cumulative rectifier usage is less than 60 million amp-hr/yr as demonstrated by using either of the following procedures:~~
  - ~~(1) —~~ *~~Annual actual cumulative rectifier capacity.~~* ~~Show by records that the facility's previous annual actual cumulative rectifier capacity was less than 60 million amp-hr/yr, by using nonresettable ampere-hour meters and keeping monthly records of actual ampere-hour capacity for each 12-month rolling period following the compliance date. The actual cumulative rectifier capacity for the previous 12-month rolling period shall be tabulated monthly by adding the capacity for the current month to the capacities for the previous 11 months; or~~
  - ~~(2) —~~ *~~Maximum cumulative potential rectifier usage limit.~~* ~~By accepting a limit on the maximum cumulative potential rectifier usage of a hard chromium electroplating facility through a title V permit condition or a permitting agency operating permit condition and by maintaining monthly records in accordance with subsection 93102.12(c)(1) to demonstrate that the limit has not been exceeded.~~
- ~~(g)(f)~~ *Records of annual ~~a~~Ampere-~~h~~Hour use.* Facilities shall maintain ~~m~~Monthly records of total ~~a~~Ampere-~~h~~Hour use per calendar year.

The record shall be submitted to the ~~permitting agency~~District as part of their ~~Initial and Ongoing C~~ompliance S~~tatus R~~eports, as specified in Appendix 2 and 3.

- (h)(g) ~~Records of e~~C~~hemical f~~ume s~~uppressant additions.~~ For ~~f~~Facilities using ~~e~~C~~hemical f~~ume s~~uppressants~~ to comply with the standards, or requirements, the ~~e~~O~~wner or e~~Operator shall maintain records of the date, time, approximate volume, and product identification of the ~~e~~C~~hemical f~~ume s~~uppressant~~ that is added to the ~~electroplating or anodizing b~~ath.
- (i)(h) ~~Records of trivalent chromium process~~Trivalent Chromium Plating components. For ~~f~~Facilities complying with subsection 93102.6(a)(1)(B) ~~using the trivalent chromium process,~~ the ~~e~~O~~wner or e~~Operator shall maintain records of the ~~b~~ath e~~Components~~ purchased, including the trade or brand names, with the ~~w~~Wetting a~~Agent~~ clearly identified as a ~~bath constituent~~Bath Component contained in one of the components.
- (j) ~~New/modified source review information. The owner or operator shall maintain records supporting the notifications and reports required by the permitting agency's new source review provisions and/or subsection 93102.4(e).~~
- (k)(i) ~~Housekeeping records.~~ The ~~e~~O~~wner or e~~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 ~~f~~ugitive dust e~~missions.~~
- (l)(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 ~~CFR~~Code of Federal Regulations Part 63 Subpart N.

### **§ 93102.13. Reporting Requirements.**

- (a) ~~Performance test~~Source Test documentation.

- (1) ~~Notification of performance test~~Source Test.

- (A) The ~~e~~O~~wner or e~~Operator of a ~~f~~Facility shall notify the

~~permitting agency~~District of his or her intention to conduct a ~~performance test~~Source Test at least 60 calendar days before the ~~performance test~~Source Test is scheduled.

~~(B) — The provisions in subsection 93102.13(a)(1)(A), above, do not apply if the performance test was conducted prior to July 24, 1997, was used to demonstrate compliance with subsection 93102.4(a) or subsection 93102.6(a), and was approved by the permitting agency and the U.S. EPA.~~

(2) ~~Reports of performance test~~Source Test results. The ~~e~~Owner or ~~e~~Operator shall report ~~performance test~~Source Test results to the ~~permitting agency~~District. Reports of ~~performance test~~Source Test results shall be submitted no later than 90 days following the completion of the required ~~performance test~~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 ~~performance test~~Source Test reports shall contain the information identified in Appendix 42.

~~(b) — Initial compliance status report. An initial compliance status report is required each time that a facility becomes subject to the requirements of this ATCM. The owner or operator shall submit to the permitting agency an initial compliance status report, signed by the responsible official who shall certify its accuracy, attesting to whether the facility has complied with this rule.~~

~~(1) — The initial compliance status report shall be submitted to the permitting agency no later than 180 days after the effective date of this rule for existing facilities, or at start up for new facilities.~~

~~(2) — The content of the initial compliance status report shall contain the information identified in Appendix 2.~~

~~(e)(b)~~ Ongoing compliance status reports. The ~~e~~Owner, or ~~e~~Operator shall submit a summary report to the ~~permitting agency~~District to document the ongoing compliance status.

(1) Ongoing compliance status reports shall be submitted to the ~~permitting agency~~District on or before February 1 annually for all ~~f~~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.
- ~~(d)(c)~~ *Reports of ~~b~~Breakdowns.* The ~~e~~Owner or ~~e~~Operator shall report ~~b~~Breakdowns as required by the ~~permitting agency's~~District's ~~b~~Breakdown rule.
- ~~(e)(d)~~ *Reports associated with ~~the trivalent chromium process~~Trivalent Chromium Plating.*
- (1) *Facilities ~~currently using the trivalent chromium process~~Trivalent Chromium Plating prior to January 1, 2024.*
- (A) Owners or ~~e~~Operators ~~electroplating with the trivalent chromium process~~conducting Trivalent Chromium Plating using a ~~w~~Wetting ~~a~~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 ~~permitting agency~~District the following information no later than ~~30 days after the effective date of this rule~~July 1, 2024, (unless this information has been previously submitted):
1. The name and address of each ~~f~~Facility subject to this paragraph;
  2. A statement that ~~a trivalent chromium process~~Trivalent Chromium Plating that incorporates a ~~w~~Wetting ~~a~~Agent will be used to comply with these requirements; and
  3. The list of ~~b~~Bath ~~e~~Components, including the trade or brand names, that comprise the ~~t~~Trivalent ~~e~~Chromium Plating ~~b~~Bath, with the ~~w~~Wetting ~~a~~Agent clearly identified.
- (B) An ~~e~~Owner or ~~e~~Operator ~~electroplating with the trivalent chromium process~~conducting Trivalent Chromium Plating and complying with the ~~e~~Emission ~~l~~imitation option in ~~subsection 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 ~~the trivalent chromium process~~Trivalent*

Chromium Plating. Within 30 days of a change to the ~~trivalent chromium process~~ Trivalent Chromium Plating, the ~~e~~Owner or ~~e~~Operator shall submit to the ~~permitting agency~~ District a report that includes:

- (A) Facilities ~~electroplating with the trivalent chromium process~~ conducting Trivalent Chromium Plating using a ~~w~~Wetting ~~a~~Agent pursuant to section 93102.6(a)(1)(B) shall submit the following information:
1. The name and address of each ~~f~~Facility subject to this paragraph; and
  2. A statement that a ~~trivalent chromium process~~ Trivalent Chromium Plating that incorporates a ~~w~~Wetting ~~a~~Agent will be used to comply with these requirements; and
  3. The list of ~~b~~Bath ~~e~~Components that comprise the ~~t~~Trivalent ~~e~~Chromium ~~b~~Bath, with the ~~w~~Wetting ~~a~~Agent clearly identified; and
  4. A description of the manner in which the process has been changed.
- (B) Facilities ~~electroplating with the trivalent chromium process~~ conducting Trivalent Chromium Plating and complying with the ~~e~~Emission ~~l~~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.

~~(f)~~(e) *Adjustments to the timeline for submittal and format of reports.* A ~~permitting agency~~ 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 ~~permitting agency~~ 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 ~~CFR~~ Code of Federal Regulations Part 63 Subpart N.

**§ 93102.14. Procedure for Establishing Alternative Requirements**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).
- ~~(a)(b) Request Approval of an Alternative Requirement. Any person may~~To request approval of an alternative requirement method(s) of compliance, The person seeking such approval~~Owner or Operator shall submit the proposed alternative requirement a request to the permitting agency~~District for approval as required by Appendix 1. The request must include the proposed alternative requirement, the reason for requesting the alternative requirement, and information demonstrating that the criteria for approval identified in Table 93102.14 are met~~information listed in Appendix 8.~~
- ~~(b) Approval of an Alternative Requirement. A permitting agency may approve an alternative requirement if it determines that application of the alternative requirement meets the criteria for approval, identified in Table 93102.14, and the permitting agency has received concurrence by the ARB and U.S. EPA, where concurrence is required.~~
- (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.

~~(c) — Concurrence for an Alternative Requirement. For those requirements identified in Table 93102.14 as requiring concurrence by the U.S. EPA and ARB, the permitting agency shall submit the alternative requirement to the concurring agency prior to final action by the permitting agency.~~

(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.

- (d)(e) ~~Reports of Approved Alternative Requirements to U.S. EPA and ARB.~~ The District permitting agency shall provide the U.S. EPA and CARB with copies of the notice for all determinations it proposes to issue pursuant to section 93102.14(c) all approved alternative requirements. The information shall be provided prior to issuing the notice of the determination at a mutually agreed upon frequency. At CARB's request, the District shall provide the Owner or Operator's request(s) submitted pursuant to section 93102.14(b) to CARB.
- (e) ~~Approval Criteria.~~ Nothing in this section prohibits the permitting agency from establishing approval criteria more stringent than that required in Table 93102.14.
- (f) ~~Alternatives Approved by U.S. EPA.~~ Waivers obtained from U.S. EPA prior to October 24, 2007, shall remain in effect until the effective dates of the specified requirements become effective.

Table 93102.14 — Requirements for Approval of Alternatives

Section or Subsection	Requirement	Criteria for Approval	Approving Agency	Concurring Agency <sup>(4)</sup>
93102.1	Applicability	equivalent type and size of facility regulated	District	
93102.4	Limits and requirements	equal or greater emission reductions	District	U.S. EPA
93102.7(a)	Performance test requirements	equivalent means of determining compliance	District	
93102.7(b)	Use of previously conducted performance tests	overall existing tests provide a similar level of compliance assurance	District	
93102.7(c)	Alternative test method	provides a similar level of accuracy and precision	District for Minor <sup>2</sup> - and Intermediate <sup>3</sup> Changes	U.S. EPA, for Major <sup>4</sup> Changes, and ARB
93102.7(d)	Amendments to the pre-test protocol	equivalent means of determining compliance	District	
93102.7(e)	Test all emission points	equivalent means of determining compliance	District	
93102.9	Parameter monitoring	equivalent means of determining and assuring compliance	District for Minor <sup>5</sup> - and Intermediate <sup>6</sup> Changes	U.S. EPA for Major <sup>7</sup> Changes
93102.10	Inspection-maintenance requirements	equivalent means of assuring compliance	District	

93102.11	Operation and maintenance plans	equivalent means of assuring compliance	District	
93102.12(a) through (f) and (h) through (j)	Record-keeping	equivalent means of assuring compliance	District for Minor <sup>8</sup> Changes	U.S. EPA for Major <sup>9</sup> Changes
93102.12(l)	Retention of records	assure historical records available for up to 5 years	District for Minor <sup>8</sup> Changes	U.S. EPA for Major <sup>9</sup> Changes
93102.13	Reporting	equivalent means of assuring compliance	District for Minor <sup>8</sup> Changes	U.S. EPA for Major <sup>9</sup> Changes

1. U.S. EPA, or the implementing agency, in accordance with any delegation of authority to approve alternatives from the U.S. EPA.
2. Minor change to test method means: (1) A modification to a federally enforceable test method that: (i) Does not decrease the stringency of the emission limitation or standard; (ii) Has no national significance (e.g., does not affect implementation of the applicable regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the test method); and (iii) Is site specific, made to reflect or accommodate the operational characteristics, physical constraints, or safety concerns of an affected source. Examples of minor changes to a test method include, but are not limited to: (i) Field adjustments in a test method's sampling procedure, such as a modified sampling traverse or location to avoid interference from an obstruction in the stack, increasing the sampling time or volume, use of additional impingers for a high moisture situation, accepting particulate emission results for a test run that was conducted with a lower than specified temperature, substitution of a material in the sampling train that has been demonstrated to be more inert for the sample matrix; and (ii) Changes in recovery and analytical techniques such as a change in quality control/quality assurance requirements needed to adjust for analysis of a certain sample matrix.
3. Intermediate change to test method means a within method modification to a federally enforceable test method involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site specific basis and that may have the potential to decrease the stringency of the associated emission limitation or standard. Though site specific, an intermediate change may set a national precedent for a source category and may ultimately result in a revision to the federally enforceable test method. In order to be approved, an intermediate change must be validated according to U.S. EPA Method 301 (40 CFR Part 63, Appendix A) to demonstrate that it provides equal or improved accuracy and precision. Examples of intermediate changes to a test method include, but are not limited to: (1) Modifications to a test method's sampling procedure including substitution of sampling equipment that has been demonstrated for a particular sample matrix, and use of a different impinger absorbing solution; (2) Changes in sample recovery procedures and analytical techniques, such as changes to sample holding times and use of a different analytical finish with proven capability for the analyte of interest; and (3) "Combining" a federally required method with another proven method for application to processes emitting multiple pollutants.
4. Major change to test method means a modification to a federally enforceable test method that uses "unproven technology or procedures" (not generally accepted by the scientific community) or is an entirely new method (sometimes necessary when the required test method is unsuitable). A major change to a

test method may be site specific, or may apply to one or more sources or source categories, and will almost always set a national precedent. In order to be approved, a major change must be validated according to EPA Method 301 (40 CFR Part 63, Appendix A). Examples of major changes to a test method include, but are not limited to: (1) Use of an unproven analytical finish; (2) Use of a method developed to fill a test method gap; (3) Use of a new test method developed to apply to a control technology not contemplated in the applicable regulation; and (4) Combining two or more sampling/analytical methods (at least one unproven) into one for application to processes emitting multiple pollutants.

5. Minor change to monitoring means: (1) A modification to federally required monitoring that: (i) Does not decrease the stringency of the compliance and enforcement measures for the relevant standard; (ii) Has no national significance (e.g., does not affect implementation of the applicable regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the monitoring requirements); and (iii) Is site specific, made to reflect or accommodate the operational characteristics, physical constraints, or safety concerns of an affected source. (2) Examples of minor changes to monitoring include, but are not limited to: (i) Modifications to a sampling procedure, such as use of an improved sample conditioning system to reduce maintenance requirements; (ii) Increased monitoring frequency; and (iii) Modification of the environmental shelter to moderate temperature fluctuation and thus protect the analytical instrumentation.
6. Intermediate change to monitoring means a modification to federally required monitoring involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site specific basis and that may have the potential to decrease the stringency of the associated emission limitation or standard. Though site specific, an intermediate change may set a national precedent for a source category and may ultimately result in a revision to the federally required monitoring. Examples of intermediate changes to monitoring include, but are not limited to: (1) Use of a continuous emission monitoring system (CEMS) in lieu of a parameter monitoring approach; (2) Decreased frequency for non continuous parameter monitoring or physical inspections; (3) Changes to quality control requirements for parameter monitoring; and (4) Use of an electronic data reduction system in lieu of manual data reduction.
7. Major change to monitoring means a modification to federally required monitoring that uses "unproven technology or procedures" (not generally accepted by the scientific community) or is an entirely new method (sometimes necessary when the required monitoring is unsuitable). A major change to monitoring may be site specific or may apply to one or more source categories and will almost always set a national precedent. Examples of major changes to monitoring include, but are not limited to: (1) Use of a new monitoring approach developed to apply to a control technology not contemplated in the applicable regulation; (2) Use of a predictive emission monitoring system (PEMS) in place of a required continuous emission monitoring system (CEMS); (3) Use of alternative calibration procedures that do not involve calibration gases or test cells; (4) Use of an analytical technology that differs from that specified by a performance specification; (5) Decreased monitoring frequency for a continuous emission monitoring system, continuous opacity monitoring system, predictive emission monitoring system, or continuous parameter monitoring system; (6) Decreased monitoring frequency for a leak detection and repair program; and (7) Use of alternative averaging times for reporting purposes.
8. Minor change to recordkeeping/reporting means: (1) A modification to federally required recordkeeping or reporting that: (i) Does not decrease the stringency of the compliance and enforcement measures for the relevant standards; (ii) Has no national

significance (e.g., does not affect implementation of the applicable regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the recordkeeping or reporting requirement); and (iii) Is site-specific. (2) Examples of minor changes to recordkeeping or reporting include, but are not limited to: (i) Changes to recordkeeping necessitated by alternatives to monitoring; (ii) Increased frequency of recordkeeping or reporting, or increased record retention periods; (iii) Increased reliability in the form of recording monitoring data, e.g., electronic or automatic recording as opposed to manual recording of monitoring data; (iv) Changes related to compliance extensions granted pursuant to 40 CFR Part 63 Section 63.6(i); (v) Changes to recordkeeping for good cause shown for a fixed short duration, e.g., facility shutdown; (vi) changes to recordkeeping or reporting that is clearly redundant with equivalent recordkeeping/reporting requirements; and (vii) Decreases in the frequency of reporting for area sources to no less than once a year for good cause shown, or for major sources to no less than twice a year as required by title V, for good cause shown.

9. ~~Major change to recordkeeping/reporting means: (1) A modification to federally required recordkeeping or reporting that: (i) May decrease the stringency of the required compliance and enforcement measures for the relevant standards; (ii) May have national significance (e.g., might affect implementation of the applicable regulation for other affected sources, might set a national precedent); or (iii) Is not site-specific. (2) Examples of major changes to recordkeeping and reporting include, but are not limited to: (i) Decreases in the record retention for all records; (ii) Waiver of all or most recordkeeping or reporting requirements; (iii) Major changes to the contents of reports; or (iv) Decreases in the reliability of recordkeeping or reporting (e.g., manual recording of monitoring data instead of required automated or electronic recording, or paper reports where electronic reporting may have been required).~~

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 CFR Code of Federal Regulations Part 63 Subpart N.

**§ 93102.15. Requirements Relating to Chromium-  
~~Electroplating or Chromic Acid Anodizing~~Chrome Plating Kits.**

- (a) ~~Except as provided in subsection (b), n~~No pPerson shall sell, supply, offer for sale, or manufacture for sale in California, any chromium electroplating or chromic acid anodizing kitChrome Plating Kit.
- (b) ~~The provisions of subsection (a) do not apply to any person that sells, supplies, offers for sale, or manufactures for sale in California a chromium electroplating or chromic acid anodizing kit to the owner or operator of a permitted facility at which chromium electroplating or chromic acid anodizing is performed.~~
- (c)(b) No person in California shall use a chromium plating or chromic acid anodizing kitChrome Plating Kit to perform chromium electroplating or chromic acid anodizingChrome Plating unless these activities are performed at a permitted facility that complies

~~with the requirements of this ATCM.~~

- ~~(d) For the purposes of this section, "chromium electroplating or chromic acid anodizing kit" means chemicals and associated equipment for conducting chromium electroplating or chromic acid anodizing including, but not limited to, internal and external tank components.~~

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 ~~CFR~~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 ~~Plating~~Electroplating and Chromic Acid Anodizing ~~Facilities~~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](mailto: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 42 – Content of ~~Performance Test~~Source Test Reports.**

~~Performance test~~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/a~~Amp-h~~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 ~~California Air Resources Board~~CARB Method 425 will fulfill the above ~~performance test~~Source Test report content requirement.

## **Appendix 2—Content of Initial Compliance Status Reports**

Initial compliance status reports required by subsection 93102.13(b) shall contain the following information:

1. ~~Company Information: Facility name, address, owner/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 plating or anodizing tank nearest the sensitive receptor to the property line of the nearest sensitive receptor that exists on October 24, 2007. 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 that exists on October 24, 2007;~~
2. ~~The applicable requirements from section 93102.4 and the methods that were used to determine compliance. A description of the air pollution control technique for each emission point;~~
3. ~~If a facility is using add-on controls to comply provide the following:~~
  - a) ~~Description of add-on controls and a performance test report documenting the results of the performance test, which contains the elements listed in Appendix 1;~~
  - b) ~~If the facility is a hexavalent chromium facility, the actual hexavalent chromium emissions of the facility in pounds per year calculated by multiplying the emission rate with the actual ampere hours for the preceding calendar year.~~
  - c) ~~For monitored parameters 93102.9(b) and (c), the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit; and~~
  - d) ~~A statement that the owner or operator has completed and has on file the operation and maintenance plan as required by section 93102.11.~~
4. ~~If a facility is using in-tank controls to comply, provide the following:~~
  - a) ~~Description of in-tank controls including name of in-tank controls, name of chemical fume suppressant, surface tension of the electroplating or anodizing bath; and~~

- ~~b) For monitored parameters 93102.9(d), (e), and (f) the specific operating parameter value where applicable, or range of values, that corresponds to compliance.~~
- ~~5. The actual cumulative ampere hour usage expended during the preceding calendar year;~~
- ~~6. For facilities complying with section 93102.4(a), if the owner or operator is determining facility size based on actual cumulative rectifier usage, records to support that the facility is small or medium. For existing facilities, records from any 12 month period preceding the compliance date shall be used or a description of how operations will change to meet a small or medium designation shall be provided. For new facilities, records of projected rectifier usage for the first 12 month period of tank operation shall be used;~~
- ~~7. A statement that the owner or operator, or personnel designated by the owner or operator, has completed Environmental Compliance Training pursuant to 93102.5(b); and~~
- ~~8. A statement by the owner or operator as to whether the facilities have complied with the provisions of sections 93102 through 93102.16.~~

### Appendix 3 — Content of Ongoing Compliance Status Reports.

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

1. Company Information: fFacility name, address, eOwner/ or eOperator name, telephone number, and the measured distance to the property boundary of the nearest sSensitive rReceptor. For fFacilities that do not have an aAdd-on aAir pPollution eControl dDevice, the measurement shall be the distance, rounded to the nearest foot, from the edge of the ~~plating or anodizing tank~~Chrome Plating Tank nearest the sSensitive rReceptor to the property line of the nearest sSensitive rReceptor. For fFacilities with an aAdd-on aAir pPollution eControl dDevice, the measurement shall be the distance, rounded to the nearest foot, from the centroid of the stack to the property line of the nearest sSensitive rReceptor;
2. The relevant requirements for the fFacility, and the operating parameter value, or range of values, that correspond to compliance as specified in the notification of initial compliance status ~~required by Appendix 2~~;
3. The actual cumulative aAmpere-hHour usage expended during the reporting period, on a month-by-month basis, for the reporting period January 1 through December 31;
4. The actual hHexavalent eChromium emissions of the fFacility during the reporting period in pounds per year calculated by multiplying the emission rate with the actual aAmpere-hHour usage for the reporting period;
5. A summary of any excess emissions or exceeded monitoring parameters as identified in the records required by subsection 93102.12(e);
6. A certification by a rResponsible eOfficial that the inspection and maintenance requirements in section 93102.10 were followed in accordance with the operation and maintenance plan for the fFacility;
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 a copy of the record(s) required by subsection 93102.12(a) documenting that the operation and maintenance plan was not followed;
8. A description of any changes in monitoring, processes, or controls since the last reporting period;

9. A statement that the eOwner or eOperator, or personnel designated by the eOwner or eOperator, has, within the last ~~2~~two years, completed Environmental Compliance Training pursuant to section 93102.5(b);
10. The name, title, and signature of the ~~r~~Responsible eOfficial who is certifying the accuracy of the report; and
11. The date of the report.

## **Appendix 4—Notification of Construction Reports**

Notification of Construction Reports required by subsection 93102.4(e) shall contain the following information:

1. The owner or operator's name, title, and address;
2. The address (i.e., physical location) or proposed address of the facility if different from the owner's or operator's;
3. A notification of intention to construct a new facility and certification that all of the criteria specified in subsection 93102.4(d) are met;
4. A notification of intention to make any physical or operational changes to a facility that may meet or has been determined to meet the criteria for a modification;
5. The expected commencement and completion dates of the construction or modification;
6. The anticipated date of (initial) startup of the facility;
7. The type of process operation to be performed (hard or decorative chromium electroplating, or chromic acid anodizing);
8. A description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and
9. An estimate of emissions from the facility based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emission limits of this ATCM. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.

Note: A facility can fulfill these report content requirements by complying with the permitting agency's new source review rule or policy, provided similar information is obtained.

## Appendix 54 – Smoke Test for Chrome Tank Covers.

### SMOKE TEST TO VERIFY THE SEAL INTEGRITY OF COVERS DESIGNED TO REDUCE CHROMIUM EMISSIONS FROM ~~ELECTROPLATING AND ANODIZING TANKS~~CHROME PLATING TANKS

#### 1.——Applicability and Principle

- 2.1. Applicability. This alternative method is applicable to all ~~hard chromium electroplating and anodizing operations~~Hard Chrome Plating Operations where a ~~chrome tank~~Chrome Plating Tank cover is used on the ~~€Tank~~ for reducing ~~Hexavalent €Chromium~~ emissions.
- 3.2. Principle. During ~~chromium electroplating or anodizing operations~~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 (chromium mist)~~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 ~~chromium mist~~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.

#### 4.——Apparatus

- 5.3. Smoke device. Adequate to generate 500 to 1000 ft<sup>3</sup> of smoke/20 ft<sup>2</sup> of ~~€Tank~~ surface area (e.g., Model #1A=15 SECONDS from Superior Signal, New York).
- 6.4. Small container. To hold the smoke device.

#### 7.——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 ~~bus bars~~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 ~~e~~Chrome Plating~~t~~Tank cover.



**Appendix 65 – Air Pollution Control or Air Quality Management District Breakdown Rules.**

DISTRICT	RULE #	RULE NAME
Amador	516	<del>Upset and</del> Breakdown Conditions
Antelope	430	Breakdown Provisions
Bay Area	1	General Provisions and Definitions
Butte	<del>275</del> 266	<del>Reporting Procedures for Excess Emissions</del> Upset and Breakdown Conditions
Calaveras	516	Upset and Breakdown Conditions
Colusa	<del>1.13</del> 266	<del>Equipment Breakdown</del> Upset and Breakdown Conditions
Eastern Kern	111	Equipment Breakdown
El Dorado	516	<del>Upset and</del> Breakdown Conditions
Feather River	9.6	Equipment Breakdown
Glenn	95.2	Malfunction of Equipment
Great Basin	403	Breakdown
Imperial	111	Equipment Breakdown
Kern	111	Equipment Breakdown
Lake	Chapter III, Article II	Malfunction
Lassen	<del>2.154</del> 22	<del>Equipment Breakdown</del> Conditions
Mariposa	516	Upset and Breakdown Conditions
Mendocino	<del>R1-5</del> 540	Equipment Breakdown
Modoc	2.12	Equipment Breakdown
Mojave	430	Breakdown Provisions
Monterey Bay	214	Breakdown Condition
North Coast	<del>3-4</del> 540	<del>Breakdown and Violation Reporting</del>
North Coast	<del>1-5-540</del> 105	Enforcement & Penalty Actions: Section D - Equipment Breakdown
Northern Sierra	516	Upset and Breakdown Conditions
Northern Sonoma	<del>1-5</del> 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

DISTRICT	RULE #	RULE NAME
Shasta	3:10	Excess Emissions
Siskiyou	2.12	Equipment Breakdown (Siskiyou)
South Coast	430	Breakdown Provisions
<u>South Coast</u>	<u>517</u>	<u>Emergency Variance Procedures - Breakdowns</u>
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 76 – Alternative Requirements for Enclosed Hexavalent Chromium  
Electroplating Facilities**  
**Plating Tanks – Mass Emission Rate Calculation Procedure.**

Mass Emission Rate shall be calculated using the following equation:

$$\text{MAMER} = \text{ETSA} \times K \times 0.015 \text{ mg/dscm}$$

Where:

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

ETSA = the Hexavalent Chromium Plating Tank surface area in square  
feet (ft<sup>2</sup>).

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

## Appendix 87 – Surface Tension Procedure for a Stalagmometer.

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

1. Set up the sStalagmometer, in its stand in, inside of a fume hood.
2. Place a clean 150 mL beaker underneath the sStalagmometer, then fill with reagent grade concentrated nitric acid. Immerse bottom tip (approximately ½") of the sStalagmometer 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 sStalagmometer. 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 sStalagmometer 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 sStalagmometer with deionized or distilled water until the inside is "water break" free.
6. Fill a clean 150 mL beaker with isopropyl alcohol. Again, using the rubber bulb per Step #3, rinse and drain the sStalagmometer twice with isopropyl alcohol and allow the sStalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room 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 sStalagmometer into the beaker. Fill the sStalagmometer per the instructions in Step #3, making sure that the solution level is above the top etched line.
9. Raise the sStalagmometer so that the bottom end is completely out of solution. Remove bulb and immediately place a finger on the top end of the sStalagmometer. 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 the

side 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**

$$\text{Surface Tension (dynes/cm)} = \frac{S_w * N_w * D}{N * D_w}$$

$S_w$  = Surface Tension of water at 25°C or 77°F (72.75 dynes/cm)

$N_w$  = water drop number etched on instrument

$D$  = measured specific gravity (g/ml)

$N$  = # of solution drops

$D_w$  = 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 the instrument 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 ( $N_w$ ) in the equation instead of the number of drops etched on the Stalagmometer
7. Sample at room temperature

**Appendix 98 – Information to be Submitted to the Permitting Agency District when Demonstrating an Requesting Alternative Method or Method(s) of Compliance Pursuant to sSection 93102.4(b)(3)14.**

The eOwner or eOperator of a fFacility applying for approval of an alternative method of compliance must submit to the permitting agencyDistrict the following information:

1. ~~A performance test as specified in Section 93102.7. The test shall have been conducted in a manner consistent with normal electroplating or anodizing operations.~~
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 achieves an equal or greater amount of reductions in hHexavalent eChromium emissions than would be achieved with direct compliance with the applicable emission-rate in Table 93102.4requirement(s) that the alternative method(s) seek to replace.
3. Calculations based on scientifically valid risk assessment methodologies demonstrating that the alternative method(s) results in reducing risk equally or greater than the risk reduction that would be achieved by direct compliance with the applicable emission rate in Table 93102.4requirement(s) that the alternative method(s) seek to replace. A facility using in-tank controls only must be modeled as a volume source and the resulting risk compared to the same facility modeled as a point source.
4. Documentation which demonstrates that the reductions to be achieved by each of the alternative compliance methods included in the request are method is eEnforceable, including an operation and maintenance plan, an inspection and maintenance schedule, and 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.

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 CFR Part 63 Subpart N.

## 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.

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

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).

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 CFR Part 63 Subpart N.