BOARD MEETING DATE: December 5, 2025 AGENDA NO. 30

PROPOSAL: Determine That Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, Is Exempt from CEQA; and Amend Rule 1469

SYNOPSIS: Proposed Amended Rule 1469 (PAR 1469) will incorporate the more stringent requirements adopted by CARB's Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations by incorporating CARB's phase out dates for hexavalent chromium decorative plating and functional plating, more stringent emission limit, and more frequent source testing, as well as prohibiting new hexavalent chromium plating facilities. PAR 1469 will also add other administrative amendments.

COMMITTEE: Stationary Source, September 19, 2025, Reviewed

RECOMMENDED ACTIONS:
Adopt the attached Resolution:

1. Determining that PAR 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, is exempt from the requirements of California Environmental Quality Act; and
2. Amending Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

Wayne Nastri
Executive Officer

SR:MK:KC:NF:MS

Background

Hexavalent chromium is one of the most potent carcinogens. Inhalation of hexavalent chromium can cause both cancer and non-cancer health effects, and over a long period of time increases the risk of lung cancer and nasal cancer. Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations (Rule 1469) addresses hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations (chrome plating and anodizing). CARB categorizes these operations decorative chrome plating or functional chrome plating which includes hard chrome plating and anodizing. Decorative chrome plating imparts a desired aesthetic shine to a part, such as an automotive part or bathroom fixture. Functional chrome plating adds a protective layer or a functional property to a part, such as an airplane part.

In 2023, the CARB amended its Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations (Chrome ATCM). The Chrome ATCM requires the phase out of hexavalent chromium decorative plating no later than January 1, 2030. The Chrome ATCM also requires the phase out of hexavalent chromium functional plating by January 1, 2039, pending two technology reviews conducted by CARB due by 2032 and 2036. Additionally, the Chrome ATCM prohibits new hexavalent chromium plating facilities, has additional requirements for tanks that underwent a modification, incorporates many of Rule 1469 requirements adopted in 2018, and lowers the emission limit for functional chrome plating facilities as demonstrated by a source test every two years beginning in 2026.

Health and Safety Code Section 39666(d) mandates the South Coast AQMD to implement and enforce ATCMs or enforce equally effective or more stringent rules than ATCMs. Proposed Amended Rule 1469 (PAR 1469) is being amended to incorporate the more stringent requirements of the Chrome ATCM. In addition, PAR 1469 also includes requirements to assist with implementation and to further prevent the generation of fugitive emissions.

Proposed Amendments

Consistent with state law, PAR 1469 incorporates the more stringent requirements in the Chrome ATCM. PAR 1469 prohibits new facilities that use hexavalent chromium for chromium electroplating or chromic acid anodizing. PAR 1469 requires facilities, upon completion of a modification, to meet all the new requirements such as meeting the more stringent emission limit through source testing. PAR 1469 requires functional chrome plating facilities to meet the more stringent emission limit and conduct source tests every two years. PAR 1469 also requires the phase out of hexavalent chromium used for decorative chrome plating by January 1, 2030. The phase out date of the use of hexavalent chromium for functional chrome plating is referenced to a date specified in the Chrome ATCM, which is currently January 1, 2039.

Additional changes proposed that go beyond the Chrome ATCM, include, but are not limited to clarifying existing requirements, prohibiting certain activities to prevent fugitive emissions, and other measures to assist with implementation of PAR 1469 requirements.

Public Process

PAR 1469 was developed through an extensive public process. A Working Group was formed, which included representatives from industry, consultants, and community and environmental groups. Two working group meetings were held on March 11, 2025 and July 23, 2025. Since the adoption of the Chrome ATCM, South Coast AQMD issued two regulatory advisories. The first regulatory advisory was issued in March 2024 to inform facilities that the South Coast AQMD planned to amend Rule 1469 to incorporate the provisions of the Chrome ATCM. The second regulatory advisory was issued in June 2025 to remind facilities of the more stringent Chrome ATCM requirements for functional chrome facilities required by January 1, 2026. In addition, a Public Workshop was held on August 27, 2025.

Key Issues

Throughout the rulemaking process, staff has worked with stakeholders to resolve key issues while ensuring that PAR 1469 incorporates the more stringent requirements from the recently amended Chrome ATCM. A remaining key issue is the submission of permit applications for functional chrome equipment subject to the new emission limit requirements.

Submission of Permit Applications

PAR 1469 ensures that equipment subject to the lower emission limit in PAR 1469 has permits reflecting the latest enforceable emission limit. Some stakeholders expressed concern that modifying the applicable permits to incorporate the new emission limit is not necessary and imposes additional costs to facilities.

Functional chrome plating facilities are expected to meet the new emission limit without physical modifications. A permit modification for functional chrome plating facilities is needed to ensure the permit conditions incorporate the new emission limit and are consistent with PAR 1469. Permitting engineers need to perform an evaluation to ensure compliance with the lower emissions limit.

Emission Reductions

Emissions reductions are expected from the phase out of hexavalent chromium use in chrome plating as required under the Chrome ATCM. Based upon CARB's estimated reductions and the share of facilities located in South Coast AQMD, a reduction of 0.66 lbs/year of hexavalent chromium is expected due to the phase out of decorative chrome plating and a reduction of 5.9 lbs/year is expected due to the phase out for functional chrome plating.

California Environmental Quality Act (CEQA)
PAR 1469 incorporates provisions from the existing Chrome ATCM whose environmental impacts were analyzed in the Final Environmental Analysis for the Proposed Amendments to the ATCM for Chromium Electroplating and Chromic Acid Anodizing Operations which was certified by CARB on May 25, 2023. PAR 1469 also includes other requirements separate from the Chrome ATCM that do not require physical modifications; thus, pursuant to CEQA Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1469) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 and is included as Attachment H to this Board letter. If PAR 1469 is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

Socioeconomic Impact Assessment
PAR 1469 will apply to 72 facilities within the South Coast AQMD jurisdiction, the majority of which operate within the Fabricated Metal Product Manufacturing sector. Up to 68 affected facilities may qualify as small businesses, based on various small-business definitions. For certain provisions in PAR 1469 which were taken directly from the Chrome ATCM, such as the permit requirements affecting 42 facilities and the waste storage requirements affecting 68 facilities, the compliance costs for these specific provisions were not separate line items in the overall cost analysis in CARB's Standardized Regulatory Impact Assessment for the Chrome ATCM. Thus, for informational purposes, the socioeconomic impact assessment identified and analyzed the compliance costs of the permit and waste storage requirements for the facilities located within the South Coast AQMD jurisdiction. For the additional new PAR 1469 requirements that are not in the Chrome ATCM, such as updated tank labeling and restrictions on standing or walking on containment devices, they are expected to result in minimal to no incremental costs as they reflect existing practices or safety measures. The total present value of the amortized costs over the analysis period from 2025 to 2039 is estimated to be $1,649,861 and $1,323,953 at one and four percent discount rates, respectively. The total average annual compliance cost over the period is estimated to range from $95,713 to $115,162 at a one percent to four percent real interest rate, respectively. The details of the Final Socioeconomic Impact Assessment can be found within the Final Staff Report (Attachment G of this Board Letter).

AQMP and Legal Mandates
Under Health and Safety Code Section 40460(a), the South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. The South Coast AQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. While proposed amendments to Rule 1469 do not implement an AQMP control measure, the original rule was adopted in accordance with toxic

control measure TXM-02 - Control of Toxic Metal Particulate Emissions from Plating and Anodizing Operations in the 2016 AQMP.

Implementation and Resource Impact
Existing South Coast AQMD resources will be used to implement PAR 1469.

Attachments
A. Summary of Proposal
B. Key Issues and Responses
C. Rule Development Process
D. Key Contacts List
E. Resolution
F. Proposed Amended Rule 1469 Rule Language
G. Proposed Amended Rule 1469 Staff Report (including Final Socioeconomic Impact Assessment)
H. Notice of Exemption from CEQA
I. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

PAR 1469 incorporates the following requirements from CARB's Chrome ATCM

<u>New Facility Using Hexavalent Chromium</u>

- Not allowed to use hexavalent chromium

<u>Functional Chrome Plating Facility</u>

- Phase-out use of hexavalent chromium by 2039 or date referenced in Chrome ATCM
- More stringent emission limits
  - Functional chrome plating tank
    - 0.00075 mg/amp-hr
  - Chrome non-plating tank
    - 0.00075 mg/amp-hr, if connected to an add-on air pollution control device that also controls a functional chrome plating tank
    - 0.004 mg/hr-ft^2 if maximum exhaust rate is greater than 5,000 cfm, based on the square footage of only Tier II and Tier III Hexavalent Chromium Tanks
  - Source tests every two years
  - Update permits for functional chrome plating and control equipment

<u>Decorative Chrome Plating Facility</u>

- Phase-out use of hexavalent chromium by 2030
- More stringent emission limit (0.00075 mg/amp-hr) if facility undergoes a modification

<u>Housekeeping Requirements</u>

- Store closed container with hexavalent chromium waste in enclosed storage area or storage area enclosed by physical barriers within a building enclosure

<u>Best Management Practices</u>

- Return dragout from Tier I, Tier II, and Tier III Hexavalent Chromium Tanks to a tank

Other PAR 1469 amendments

<u>Best Management Practices</u>

- Additional labeling for a tank with submitted permit application to alter tank parameters
- Containment device restrictions
  - Prohibit standing or walking on containment device unless cleaned using approved cleaning method
  - Keep clear of all objects during tank operation

<u>Parameter Monitoring for Control Equipment Venting Functional Chrome Tanks</u>

- Reduce testing frequency from once every 180 days to once every 365 days for collection slots and push air measurements

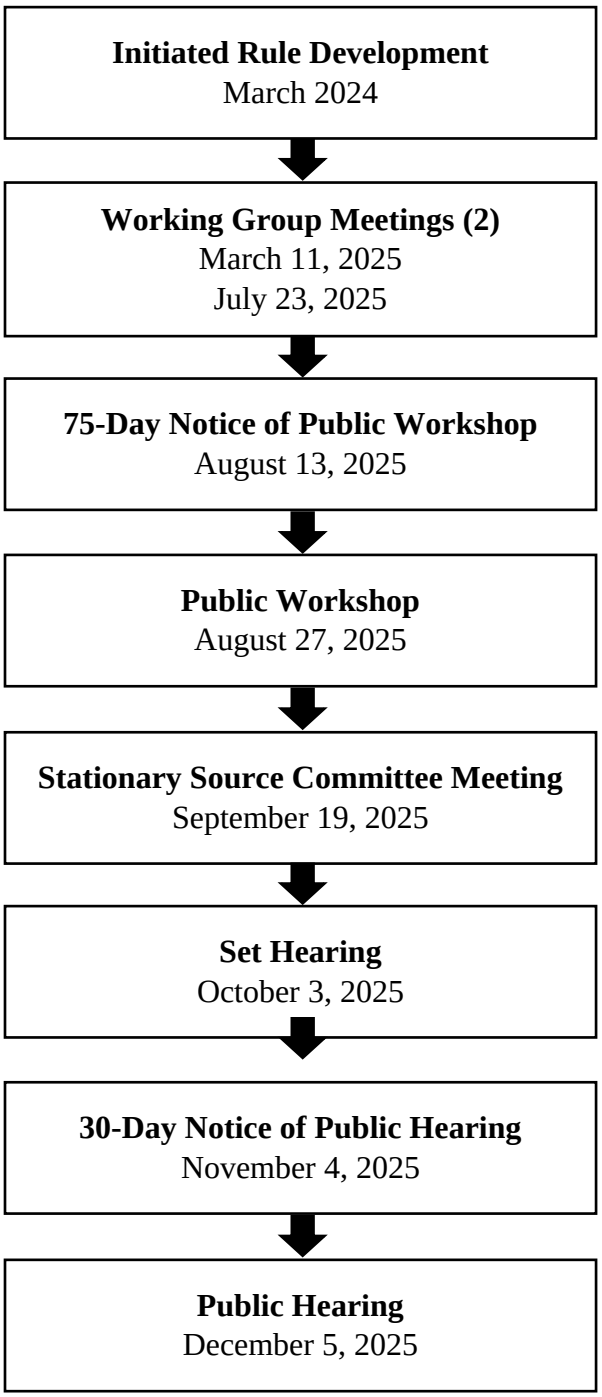
ATTACHMENT B
KEY ISSUE AND RESPONSE

Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations
<u>Submission of permit applications:</u> Some stakeholders expressed concern that modifying permits to incorporate the new emission limit is not necessary and impose additional costs on facilities. • Chrome ATCM established a new lower emission limit for functional chrome plating facilities • Although functional chrome plating facilities are expected to meet the new emission limit without physical modifications, there would remain a permit condition that is less stringent than rule requirements. • PAR 1469 requires a permit modification for functional chrome plating facilities to align the permit conditions with PAR 1469, and to perform the necessary engineering evaluation to ensure compliance with the lower emissions limit.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations



Twenty (21) months spent in rule development
One (1) Public Workshop
Two (2) Working Group Meetings
One (1) Stationary Source Committee Meeting

ATTACHMENT D
KEY CONTACTS LIST

AAA Plating & Inspection

Aircraft X-Ray Labs Inc.

Anaplex Corporation

Aviation Repair Solution

The Boeing Company

California Air Resources Board

Communities for a Better Environment

Desmond & Desmond

GREEN MPNA

Hixson Metal Finishing

K&L Anodizing

Metal Finishing Association of Southern California

Radtech International

ATTACHMENT E

RESOLUTION NO. 25-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board amending Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1469 is considered a "project" as defined by CEQA; and

WHEREAS, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of the proposed project pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board finds and determines after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that Proposed Amended Rule 1469 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that, because Proposed Amended Rule 1469 implements the 2023 California Air Resources Board (CARB) amendments to the Airborne Toxic Control Measure (ATCM) for Chromium Electroplating and Chromic Acid Anodizing Operations, whose environmental impacts were analyzed in the Final Environmental Analysis for the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations which was certified by CARB on May 23, 2023, and the requirements incorporated into Proposed Amended Rule 1469 which are separate from the CARB ATCM do not require physical modifications, it can be seen with certainty that the proposed project would not cause a significant adverse impact on the environment. Thus, the

proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

WHEREAS, the South Coast AQMD staff has prepared a Notice of Exemption for the proposed project that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Amended Rule 1469 and supporting documentation, including but not limited to, the Notice of Exemption and the Final Staff Report, which includes the Final Socioeconomic Impact Assessment, were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, and has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in section (d)(4)(D) of the Governing Board Procedures (codified as section 30.5(4)(D)(i) of the Administrative Code), that the modifications to the proposed project since the Notice of Public Hearing was published include the following: clarifying the definition of a TIER III HEXAVALENT CHROMIUM TANK by deleting "for the tank" and adding "that" in subparagraph (c)(66)(B). These revisions meet the same air quality objective and are not so substantial as to significantly affect the meaning of Proposed Amended Rule 1469 within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rule, (c) the changes are consistent with the information contained in the Notice of Public Hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the proposed project is exempt from CEQA; and

WHEREAS, Proposed Amended Rule 1469 reduces hexavalent chromium emissions which is a toxic air contaminant; and

WHEREAS, Proposed Amended Rule 1469 will be not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

WHEREAS, Proposed Amended Rule 1469 is needed to reduce emissions of hexavalent chromium from chromium electroplating and chromic acid

anodizing operations and to incorporate the more stringent requirements found in the CARB ATCM; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from the Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40440, 40441, 40702, 40725 through 40728, 41508, and 41700; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1469 is written and displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1469 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, Proposed Amended Rule 1469 will not impose the same requirements as or in conflict with any existing state or federal regulations (except that it implements the CARB ATCM provisions). The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD; and

WHEREAS, Health and Safety Code Section 39666 mandates South Coast AQMD to implement and enforce the CARB ATCM or adopt and enforce equally effective or more stringent requirements; and

WHEREAS, the South Coast AQMD Governing Board, in amending this rule, references the following statutes which the South Coast AQMD hereby implements, interprets or makes specific: the provisions of the Health and Safety Code Section 41700 (nuisance) and Section 39666 (Airborne Toxic Control Measures) and Federal Clean Air Act Section 112 (Hazardous Air Pollutants) and Section 116 (Retention of State Authority); and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and that the South Coast AQMD's comparative analysis of Proposed Amended Rule 1469 is included in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1469, is consistent with the

March 17, 1989 Governing Board Socioeconomic Resolution for rule amendment; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1469, is consistent with the provisions of Health and Safety Code Sections 40440.8 and 40728.5; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1469 includes neither new Best Available Retrofit Control Technology (BARCT) requirements nor new feasible measures pursuant to Health and Safety Code Section 40914; therefore, the requirements to conduct an analysis of cost-effectiveness and incremental cost-effectiveness as set forth in Health and Safety Code Section 40920.6, are not applicable; and

WHEREAS, the South Coast AQMD Governing Board has determined Proposed Amended Rule 1469 will result in increased costs to the affected industries, yet such costs are considered to be reasonable, with a total annualized cost as specified in the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment, which is included in the Final Staff Report for Proposed Amended Rule 1469, and has made a good faith effort to minimize such adverse impacts; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop meeting on August 27, 2025 regarding Proposed Amended Rule 1469; and

WHEREAS, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all applicable provisions of law; and

WHEREAS, the South Coast AQMD specifies that the Planning, Rule Development, and Implementation Manager overseeing the rule development of Proposed Amended Rule 1469 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of the proposed amended rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed project (Proposed Amended Rule 1469) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. This information was presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on the proposed project; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1469 as set forth in the attached, and incorporated herein by reference.

DATE: _____ _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted October 9, 1998)(Amended May 2, 2003)
(Amended December 5, 2008)(Amended November 2, 2018)
(Amended April 2, 2021)
(Amended [Date of Adoption])

PROPOSED AMENDED RULE 1469. HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS

[Rule Index to be provided after rule adoption]

(a) *Purpose*

The purpose of this rule is to reduce ~~h~~Hexavalent ~~c~~Chromium emissions from ~~f~~Facilities that perform ~~c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing operations and other activities that are generally associated with ~~c~~Chromium ~~e~~Electroplating and ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing operations.

(b) *Applicability*

This rule shall apply to the owner or operator of any ~~f~~Facility performing ~~c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing.

(c) *Definitions*

For the purposes of this rule, the following definitions shall apply:

(1) ADD-ON AIR POLLUTION CONTROL DEVICE means equipment installed in the ventilation system of any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) for the purposes of collecting and containing chromium emissions from the tank(s).

(2) ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE means equipment installed on any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) for the purposes of collecting, containing, or eliminating chromium emissions that is hermetically sealed and does not utilize a ventilation system.

(3) AIR POLLUTION CONTROL TECHNIQUE means any method, such as an A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice, A~~a~~dd-on N~~n~~on-ventilated A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice, M~~m~~echanical F~~f~~ume S~~s~~uppressant or a C~~e~~hemical F~~f~~ume S~~s~~uppressant, that is used to reduce chromium emissions from one or more Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s).

(4) AMPERE-HOURS means the integral of electrical current applied to an electroplating tank (amperes) over a period of time (hours).

(5) ANNUAL PERMITTED AMPERE-HOURS means the maximum allowable C~~e~~hromium E~~e~~lectroplating or Chromic Acid ~~a~~Anodizing rectifier production in

Aampere-hours, on an annual basis as specified in the South Coast AQMD Permit to Operate, or South Coast AQMD Permit to Construct.

(6) APPROVED CLEANING METHOD means cleaning using a wet mop, damp cloth, wet wash, Llow Ppressure Sspray Nnozzle, HEPA Vvacuum, or other equivalent cleaning method as approved by the Executive Officer.

(7) 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 Hexavalent Chromium Tank.

(8) AUTOMATED LINE means a process line consisting of tanks in which a crane, hoist, or conveyance system moves the parts from tank to tank through a defined path.

~~(8) BASE MATERIAL means the metal, metal alloy, or plastic that comprises the workpiece.~~

(9) BARRIER means a physical divider that can be fixed or portable such as a wall, welding screen, plastic strip curtains, etc.

(10) BATH COMPONENT means the trade or brand name of each component in Ttrivalent Cechromium Eelectroplating baths, including the chemical name of the Wwetting Aagent contained in that component.

(11) BUILDING ENCLOSURE means a permanent building or physical structure, or portion of a building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access for people, vehicles, equipment, or parts. A room within a building enclosure that is completely enclosed with a floor, walls, and a roof would also meet this definition.

(12) CHEMICAL FUME SUPPRESSANT means any chemical agent that reduces or suppresses fumes or mists at the surface of an eElectroplating or aAnodizing bBath; another term for fume suppressant is mist suppressant.

(13) CHROMIC ACID means the common name for chromium anhydride (CrO_3).

(14) CHROMIC ACID ANODIZING means the electrolytic process by which an oxide layer is produced on the surface of a part ~~base material~~ for functional purposes (e.g., corrosion resistance or electrical insulation) using a eChromic aAcid solution. In chromic acid anodizing, the part to be anodized acts as the anode in the electrical circuit, and the eChromic aAcid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.

(15) CHROMIUM ELECTROPLATING means the use of Hexavalent Chromium or Trivalent Chromium for Decorative Chromium Electroplating or Hard Chromium Electroplating operations.

(~~15~~ 16) CHROMIUM ELECTROPLATING OR CHROMIC ACID ANODIZING TANK means the receptacle or container in which ~~hard or decorative c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing occurs.

(~~16~~ 17) COMPOSITE MESH-PAD SYSTEM (CMP) means an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device typically consisting of several mesh-pad stages. The purpose of the first stage is to remove large particles. Smaller particles are removed in the second stage, which consists of the composite mesh pad. A final stage may remove any re-entrained particles not collected by the composite mesh pad.

(18) CONTAINMENT DEVICE means a device used to capture or direct materials that may contain Hexavalent Chromium.

(19) CONTINUOUS PASSIVATION means a process by which a part 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 part.

(~~17~~ 20) DECORATIVE CHROMIUM ELECTROPLATING means the process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) 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 (A/m^2) for total electroplating times ranging between 0.5 to 5 minutes.

(~~18~~ 21) DRAGOUT means fluid containing H~~h~~exavalent C~~e~~hromium that drips from parts, or from equipment used to remove parts from a Tier I, Tier~~,~~ II, or Tier III Hexavalent Chromium Tank.

(~~19~~ 22) 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 part ~~base material~~.

(~~20~~ 23) EMISSION LIMITATION means the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm), or the allowable S~~s~~urface T~~t~~ension expressed in dynes per centimeter (dynes/cm) for ~~d~~Decorative ~~c~~Chromium ~~e~~Electroplating and ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing tanks; and the milligrams of ~~h~~Hexavalent ~~c~~Chromium per ~~a~~Ampere-hour (mg/amp-hr) of

electrical current applied to the electroplating tank for ~~h~~Hard or ~~d~~Decorative ~~c~~Chromium ~~e~~Electroplating tanks or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing tanks, or mass emission rate for a Tier II or Tier III ~~h~~Hexavalent ~~c~~Chromium ~~t~~Tank.

(24) ENCLOSED HEXAVALENT CHROMIUM TANK means a Chromium Electroplating or Chromic Acid Anodizing Tank using Hexavalent Chromium in the Electroplating or Anodizing Bath that is equipped with an enclosing hood and ventilated as specified by the manufacturer.

(~~21~~ 25) ENCLOSED STORAGE AREA is any space or structure used to contain material that prevents its contents from being emitted into the atmosphere.

(~~22~~ 26) ENCLOSURE OPENING is any permanent opening that is designed to be part of a ~~b~~Building ~~e~~Enclosure or ~~p~~Permanent ~~t~~Total ~~e~~Enclosure, such as passages, doorways, bay doors, vents, roof openings, and windows. The term excludes openings that are designed to accommodate and generally conform to a stack or duct for a ~~b~~Building ~~e~~Enclosure or ~~p~~Permanent ~~t~~Total ~~e~~Enclosure.

(~~23~~ 27) EXISTING FACILITY means a ~~f~~Facility that is in operation before October 24, 2007.

(~~24~~ 28) FACILITY means a Ssource located on one or more contiguous properties within the ~~District~~South Coast AQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) Ssource as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(~~25~~ 29) FIBER-BED MIST ELIMINATOR means an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device that removes contaminants from a gas stream through the mechanisms of inertial impaction and Brownian diffusion. This device consists of one or more fiber beds and is typically installed downstream of another control device, which serves to prevent plugging. Each bed consists of a hollow cylinder formed from two concentric screens; the fiber between the screens may be fabricated from glass, ceramic, plastic, or metal.

(~~26~~ 30) FOAM BLANKET means the type of ~~e~~Chemical ~~f~~Fume ~~s~~Suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution.

(~~27~~ 31) FRESH WATER means water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.

(~~28~~ 32) FUGITIVE EMISSIONS means emissions generated from the operations at a ~~f~~Facility, including solid particulate matter, gas, or mist, potentially containing ~~h~~Hexavalent ~~e~~Chromium that becomes airborne by natural or man-made activities, excluding particulate matter emitted from an exhaust stack.

(33) FUNCTIONAL CHROME PLATING means Hard Chromium Electroplating, Chromic Acid Anodizing, or Continuous Passivation.

(~~29~~ 34) HARD CHROMIUM ELECTROPLATING ~~or INDUSTRIAL CHROMIUM ELECTROPLATING~~ means a process by which a thick layer of chromium (typically greater than 1.0 microns) is electrodeposited on a ~~base material~~part 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 serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard ~~C~~chromium ~~E~~electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m^2 for total electroplating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

(~~30~~ 35) HEXAVALENT CHROMIUM means the form of chromium in a valence state of +6.

(~~31~~ 36) HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) means filter(s) that are individually tested and certified by the manufacturer to have a control efficiency of not less than 99.97 percent on 0.3 micron particles.

(~~32~~ 37) HEPA VACUUM means a vacuum that is both designed for the use of and fitted with a HEPA filter.

(~~33~~ 38) LEAK means the release of chromium emissions from any opening in the emission collection system prior to exiting the emission control device.

(~~34~~ 39) LOW PRESSURE SPRAY NOZZLE means a water spray nozzle capable of regulating water pressure to 35 pounds per square inch or less.

(~~35~~ 40) MAJOR SOURCE means any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of

any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

~~(36) 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.~~

(~~37~~ 41) MECHANICAL FUME SUPPRESSANT means any physical device, including but not limited to polyballs that reduces fumes or mist at the surfaces of an ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath by direct contact with the surface of the bath.

(~~38~~ 42) METAL REMOVAL FLUID means a fluid used at the tool and workpiece interface to facilitate the removal of metal from the part, cool the part and tool, extend the life of the tool, and to flush away metal chips and debris, but does not include minimum quantity lubrication fluids used to coat the tool work piece interface with a thin film of lubricant and minimize heat buildup through friction reduction. Minimum quantity lubrication fluids are applied by pre-coating the tool in the lubricant, or by direct application at the tool work piece interface with a fine mist.

(~~39~~ 43) MODIFICATION means ~~either~~:

(A) Any physical change in, change in method of operation of, or addition to an existing permit unit subject to this rule that requires an application for a South Coast AQMD Permit to Construct and/or Operate and results in an increase in ~~H~~Hexavalent ~~C~~chromium emissions. Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:

(i) An increase in the production rate or annual ~~A~~ampere-hours, unless such increases will cause the maximum design capacity of the equipment to be exceeded, or will cause a ~~F~~facility to be subject to a different requirement in Table 1 – Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks; ~~or~~

(ii) An increase in the hours of operation; or

(iii) A change in ownership of a Ssource; or

(B) The addition of any new ~~e~~Chromium ~~e~~Electroplating or Chromic Acid ~~a~~Anodizing tank at a~~n existing f~~Facility which increases ~~–~~Hhexavalent ~~e~~Chromium emissions from the Facility; or

(C) The fixed capital cost of the replacement of components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new Ssource.

(~~40~~ 44) MODIFIED FACILITY means any E~~e~~xisting F~~f~~acility which has undergone a M~~m~~odification on or after October 24, 2007.

~~(41) NEW FACILITY means any facility that begins initial operations on or after October 24, 2007. "New Facility" does not include the installation of a new chromium electroplating or chromic acid anodizing tank at an existing facility or the modification of an existing facility.~~

(~~42~~ 45) OPERATING PARAMETER VALUE means a minimum or maximum value established to monitor the proper operation of an ~~a~~Air ~~p~~Pollution ~~e~~Control ~~t~~Technique.

(~~43~~ 46) PACKED-BED SCRUBBER means an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~Device consisting of a single or double packed-bed that contains packing media on which the ~~e~~Chromic ~~a~~Acid droplets impinge. ~~The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.~~

(~~44~~ 47) PERFLUOROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT means a fume suppressant that contains 1 percent or greater PFOS (CAS No. 1763-23-1) by weight.

(48) RECENT FACILITY means any Facility that begins initial operations on or after October 24, 2007 and before [Date of Rule Adoption]. Recent facility does not include the installation of a new Chromium Electroplating or Chromic Acid Anodizing Tank at a Facility already subject to this rule or the Modification of that Facility.

(~~45~~ 49) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in

Ffugitive Eemissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204, or other design approved by the Executive Officer.

(~~46~~ 50) RESPONSIBLE OFFICIAL means one of the following:

(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating fFacilities and either:

(i) The fFacilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the U.S. EPA Administrator.

(B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(C) For a municipality, state, Federal, or other public agency:- either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the U.S. EPA).

(D) For Ssources (as defined in this rule) applying for or subject to a Title V permit: "responsible official" shall have the same meaning as defined in South Coast AQMD's Regulation XXX.

(51) RINSE TANK means any tank where a part is partially or fully submerged into a liquid to remove any residual solution from a Tier I, Tier II, or Tier III Hexavalent Chromium Tank.

(~~47~~ 52) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the sSchool in kindergarten through grade 12. School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers. A sSchool does not include

any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of ~~s~~School property.

(~~48~~ 53) SCHOOL UNDER CONSTRUCTION means any property that meets any of the following conditions:

(A) Construction of a ~~s~~School has commenced; or

(B) A California Environmental Quality Act Notice for the construction of a ~~s~~School has been issued; or

(C) A ~~s~~School has been identified in an approved local government specific plan.

(54) SECONDARY CONTAINMENT means a Containment Device located on or is part of the floor underneath the tank(s).

(~~49~~ 55) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) ~~s~~Schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. ~~–~~A ~~s~~Sensitive ~~r~~Receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

(~~50~~ 56) SOURCE means any ~~e~~Chromium ~~e~~Electroplating or ~~e~~Chromic ~~a~~Acid ~~a~~Anodizing operation and any equipment or materials associated with the ~~a~~Air ~~p~~Pollution ~~e~~Control ~~t~~Technique.

(57) SPLASH GUARD means a near vertical or vertical Containment Device installed at or above the tank edge(s).

(~~51~~ 58) STALAGMOMETER means a device used to measure the S~~s~~urface T~~t~~ension 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.

(~~52~~ 59) SUBSTANTIAL USE OF THE SOUTH COAST AQMD PERMIT TO CONSTRUCT~~of a SCAQMD Permit to Construct~~ means one or more of the following:

(A) The equipment that constitutes the S~~s~~ource 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 S~~s~~ource within one year has been entered into.

(~~53~~ 60) 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.

(~~54~~ 61) TANK OPERATION means the time in which current and/or voltage is being applied to a ~~c~~Chromium ~~e~~Electroplating ~~tank~~ or a ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tank.

(~~55~~ 62) TANK PROCESS AREA means the area in the F~~f~~acility within 15 feet of any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s), or to the nearest wall of a ~~b~~Building ~~e~~Enclosure or ~~p~~Permanent ~~t~~Total ~~e~~Enclosure, whichever is closer.

(~~56~~ 63) TENSIOMETER means a device used to measure the ~~s~~Surface ~~t~~Tension of a solution by measuring the force necessary to pull a filament, plate, ring, or other South Coast AQMD approved object from the surface of a liquid.

(~~57~~ 64) TIER I HEXAVALENT CHROMIUM TANK means a tank, excluding a Tier II or Tier III Hexavalent Chromium Tank, that meets one or more of the following: ~~permitted as containing a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a Tier II or Tier III Hexavalent Chromium Tank.~~

(A) Operates with a Hexavalent Chromium concentration of 1,000 parts per million (ppm) or greater; or

(B) With a Permit to Operate that allows the tank to operate with a Hexavalent Chromium concentration of 1,000 parts per million (ppm) or greater.

(~~58~~ 65) TIER II HEXAVALENT CHROMIUM TANK means a tank, excluding a Tier III Hexavalent Chromium Tank, that meets one or more of the following:~~is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Appendix 10 and is not a Tier III Hexavalent Chromium Tank.~~

(A) Operates within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 10 for a Tier II Hexavalent Chromium Tank; or

(B) With a Permit to Operate that allows the tank to operate within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 10 for a Tier II Hexavalent Chromium Tank.

(~~59~~ 66) TIER III HEXAVALENT CHROMIUM TANK means a tank that meets ~~any~~ one or more of the following:

(A) Operates:~~Is operated or permitted to operate by SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Appendix 10; or~~

(i) Within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 10 for a Tier III Hexavalent Chromium Tank;

(ii) With a Hexavalent Chromium concentration greater than 1,000 ppm and is equipped to be air sparged or rectified; or

(iii) As a Chromium Electroplating or Chromic Acid Anodizing Tank using Hexavalent Chromium; or

(B) With a Permit to Operate ~~for the tank~~that allows the tank to operate:~~Contains a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or~~

(i) Within the range of temperatures and corresponding Hexavalent Chromium concentrations specified in Appendix 10 for a Tier III Hexavalent Chromium Tank;

(ii) With a Hexavalent Chromium concentration greater than 1,000 ppm and equipped to be air sparged or rectified; or

(iii) As a Chromium Electroplating or Chromic Acid Anodizing Tank using Hexavalent Chromium.

~~(C) Is a hexavalent chromium electroplating or chromic acid anodizing tank.~~

(~~60~~ 67) TRIVALENT CHROMIUM means the form of chromium in a valence state of +3.

(~~61~~ 68) TRIVALENT CHROMIUM PROCESS means the process used for electrodeposition of a ~~thin~~ layer of chromium onto a ~~base material~~ part using a ~~t~~Trivalent ~~c~~Chromium solution instead of a ~~chromic acid~~Hexavalent Chromium solution.

(~~62~~ 69) WEEKLY means at least once every seven calendar days.

(~~63~~ 70) WETTING AGENT means the type of ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant that reduces the ~~S~~surface ~~T~~tension of a liquid.

(d) *Requirements*

The owner or operator of a F~~f~~acility shall:

(1) Equip each ~~rectified~~ Chromium Electroplating and Chromic Acid Anodizing ~~t~~Tank with a continuous recording, non-resettable, ~~a~~Ampere-hour meter that operates on the electrical power lines connected to the tank or group of tanks. A separate meter shall be hard wired for each tank;

(2) Only use ~~w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants certified by the Executive Officer ~~pursuant to subdivision (l)~~ in ~~hexavalent c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tank(s) using Hexavalent Chromium;

(3) Not air sparge a ~~hexavalent c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tank using Hexavalent Chromium when electroplating or anodizing is not occurring, or while ~~c~~Chromic ~~a~~Acid is being added;

(4) Operate any Tier I, Tier II, or Tier III Hexavalent Chromium Tank within a ~~b~~Building ~~e~~Enclosure beginning January 31, 2019; ~~and~~

(5) Operate any Tier II or Tier III Hexavalent Chromium Tank within a ~~b~~Building ~~e~~Enclosure that meets the requirements of subdivision (e)~~.~~; and

(6) Operate any Tier I Hexavalent Chromium Tank within a ~~b~~Building ~~e~~Enclosure, according to the implementation schedule in Appendix 11 – Implementation Schedule, such that the following are met:

(A) The building ~~e~~Enclosure ~~o~~Openings that are open to the exterior and on opposite ends of the ~~b~~Building ~~e~~Enclosure shall not be simultaneously open except during the passage of vehicles, equipment, or people by using one or more of the following at one of the openings to prevent the passage of air:

(i) A door that automatically closes;

(ii) Overlapping plastic strip curtain;

(iii) A vestibule;

(iv) An airlock system;

(v) A B~~b~~arrier or obstruction, such as a large piece of equipment that prevents air from passing through any ~~t~~Tank ~~p~~Process ~~a~~Area; or

(vi) An alternative method to minimize the release of F~~f~~ugitive E~~e~~missions from the ~~b~~Building ~~e~~Enclosure that is approved by the Executive Officer; and~~.~~

(B) Except during the movement of vehicles, equipment, or people, close any building ~~e~~Enclosure ~~o~~Opening by using one or more of the methods listed in clauses (d)(6)(A)(i) through (d)(6)(A)(iv) and (d)(6)(A)(vi) that directly faces and opens towards the nearest:

(i) Sensitive ~~r~~Receptor, with the exception of a ~~s~~School, that is located within 1,000 feet, as measured from the property line of the ~~s~~Sensitive ~~r~~Receptor to the building ~~e~~Enclosure ~~o~~Opening; and

(ii) School that is located within 1,000 feet, as measured from the property line of the ~~s~~School to the building ~~e~~Enclosure ~~o~~Opening.

(e) *Requirements for Building Enclosures for Tier II and Tier III Hexavalent Chromium Tanks*

Beginning May 1, 2019, the owner or operator of a ~~f~~Facility shall operate Tier II or Tier III Hexavalent Chromium Tank(s) within a ~~b~~Building ~~e~~Enclosure that meets the following requirements:

(1) The combined area of all ~~e~~Enclosure ~~o~~Openings shall not exceed 3.5% of the ~~b~~Building ~~e~~Enclosure envelope, which is calculated as the total surface area of the ~~b~~Building ~~e~~Enclosure's exterior walls, floor, and horizontal projection of the roof on the ground. Information on calculations for the ~~b~~Building ~~e~~Enclosure envelope, including locations and dimensions of openings that are counted towards the applicable building envelope allowance, shall be provided in the Ongoing ~~e~~Compliance ~~s~~Status and Emission ~~r~~Reports required in paragraphs (p)(2) and (p)(3). Openings that close or use one or more of the following methods for the ~~e~~Enclosure ~~o~~Opening shall not be counted toward the combined area of all ~~e~~Enclosure ~~o~~Openings:

(A) Door that automatically closes; or

(B) Overlapping plastic strip curtain; or

(C) Vestibule; or

(D) Airlock system; or

(E) Alternative method to minimize the release of F~~f~~ugitive E~~e~~missions from the ~~b~~Building ~~e~~Enclosure that the owner or operator of a ~~f~~Facility can demonstrate to the Executive Officer is an equivalent or more effective method(s) to minimize the movement of air within the ~~b~~Building ~~e~~Enclosure;~~.~~

(2) Ensure that any building ~~e~~Enclosure ~~o~~Openings that open to the exterior and are on opposite ends of the ~~b~~Building ~~e~~Enclosure where air can pass through are not simultaneously open except during the passage of vehicles, equipment or people, not to exceed two hours per operating day, by using one or more of the following:

(A) A method specified in subparagraphs (e)(1)(A) through (e)(1)(E) for the ~~e~~Enclosure ~~o~~Opening(s) on one of the opposite ends of the ~~b~~Building ~~e~~Enclosure; or

(B) Utilize a B~~b~~arrier, such as large piece of equipment that restricts air from moving through the ~~b~~Building ~~e~~Enclosure;~~.~~

(3) Except for the movement of vehicles, equipment or people, close any building ~~e~~Enclosure ~~o~~Opening or use any of the methods listed in subparagraphs (e)(1)(A) through (e)(1)(E), that directly faces and opens towards the nearest:

(A) Sensitive ~~r~~Receptor, with the exception of a ~~s~~School, that is located within 1,000 feet, as measured from the property line of the ~~s~~Sensitive ~~r~~Receptor to the building ~~e~~Enclosure ~~o~~Opening; and

(B) School that is located within 1,000 feet, as measured from the property line of the ~~s~~School to the building ~~e~~Enclosure ~~o~~Opening;~~.~~

(4) Close all ~~e~~Enclosure ~~o~~Openings in the roof that are located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank except ~~e~~Enclosure ~~o~~Openings in the roof that:

(A) Allow access for equipment or parts; or

(B) Provide intake or circulation air for a ~~b~~Building ~~e~~Enclosure and does not create air velocities that impact the collection efficiency of a ventilation system for an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device; or

(C) Are equipped with a HEPA filter or other air pollution control device; and~~.~~

(5) Repair any breach in a ~~b~~Building ~~e~~Enclosure located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank within 72 hours of discovery. The owner or operator of a ~~f~~Facility may request an extension by calling 1-800-CUT-SMOG. The Executive Officer 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 of a ~~f~~Facility provides information that substantiates:

(A) 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

(B) Temporary measures are implemented that ensure no F~~f~~ugitive E~~e~~missions result from a breach.

(6) The owner or operator of a F~~f~~acility shall notify the Executive Officer if any of the requirements specified in paragraphs (e)(1) through (e)(4) cannot be complied with due to conflicting requirements set forth by the federal Occupational Safety and Health Administration (OSHA), California Division of Occupational Safety and Health (CAL-OSHA), or other municipal codes or agency requirements directly related to worker safety. A Building Enclosure Compliance Plan shall be submitted to the Executive Officer for review and approval no later than December 2, 2018 for facilities existing before November 2, 2018, and prior to initial start-up for all other facilities. The Building Enclosure Compliance Plan shall be subject to plan fees specified in Rule 306 and include:

(A) An explanation as to why the provision(s) specified in paragraphs (e)(1) through (e)(4) is in conflict with the requirements set forth by OSHA or CAL-

OSHA, or other municipal codes or agency requirements directly related to worker safety; and

(B) Alternative compliance measure(s) that will be implemented to minimize the release of Ff~~f~~ugitive Ee~~e~~missions to the outside of the Bb~~b~~uilding Ee~~e~~nclosure.

(7) The Executive Officer shall notify the owner or operator of a Ff~~f~~acility in writing whether the Building Enclosure Compliance Plan is approved or disapproved.

(A) If the Building Enclosure Compliance Plan is disapproved, the owner or operator of a Ff~~f~~acility shall submit a revised Building Enclosure Compliance Plan within 30 calendar days after notification of disapproval of the Building Enclosure Compliance Plan. The revised Building Enclosure Compliance Plan shall include any information to address deficiencies identified in the disapproval letter.

(B) The Executive Officer will either approve the revised Building Enclosure Compliance Plan or modify the Building Enclosure Compliance Plan and approve it as modified. The owner or operator may appeal the Building Enclosure Compliance Plan modified by the Executive Officer to the Hearing Board pursuant to Rule 216 – Appeals and Rule 221 – Plans.

(8) The owner or operator of a Ff~~f~~acility shall implement the Building Enclosure Compliance Plan specified in paragraphs (e)(6) and (e)(7), as approved by the Executive Officer, no later than 90 days after receiving notification of approval for facilities existing before November 2, 2018, and prior to initial start-up for all other facilities. Compliance with the approved alternative compliance measures shall constitute compliance with the applicable provisions of paragraphs (e)(1) through (e)(4).

~~(9) The owner or operator of a facility that has applied for an SCAQMD permit to install or is required to install an add-on air pollution control device to control either a Tier II or Tier III Hexavalent Chromium Tank(s) shall be exempt from paragraphs (e)(1) and (e)(4) until the add-on air pollution control device has been installed and commenced normal operation.~~

(f) *Housekeeping Requirements*

An owner or operator of a e~~E~~Chromium e~~E~~lectroplating or e~~C~~hromic a~~A~~cid a~~A~~nodizing f~~F~~acility shall:

(1) Store ~~c~~Chromic ~~a~~Acid powder or flakes, or other substances that may contain ~~h~~Hexavalent ~~c~~Chromium, in a closed container in an ~~e~~Enclosed ~~s~~Storage ~~a~~Area when not in use;

(2) Use a closed container when transporting ~~c~~Chromic ~~a~~Acid powder or flakes, or other substances that may contain ~~h~~Hexavalent ~~c~~Chromium from an ~~e~~Enclosed ~~s~~Storage ~~a~~Area to a Tier I, Tier II, or Tier III Hexavalent Chromium Tank;

(3) ~~Clean, using an approved cleaning method, or contain, using a drip tray or other containment device, -~~ Except for material in compliance with the requirements of paragraphs (g)(1) or (g)(2), for any liquid or solid material that may contain ~~h~~Hexavalent ~~c~~Chromium that is spilled: ~~immediately and no later than one hour after being spilled;~~

(A) Capture the material using a Containment Device; or

(B) Clean the material using an Approved Cleaning Method immediately but no later than one hour after being spilled;

(4) Clean, using an ~~a~~Approved ~~c~~Cleaning ~~m~~Method~~,~~ : surfaces within the ~~e~~Enclosed ~~s~~Storage ~~a~~Area, open floor area, walkways around a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, Containment Devices, or any surface potentially contaminated with ~~h~~Hexavalent ~~c~~Chromium or surfaces that potentially accumulate dust W~~w~~eekly;

(5) ~~Store, dispose of, recover, or recycle chromium or chromium-containing wastes generated from housekeeping activities of this subdivision using practices that do not lead to fugitive emissions. Containers with chromium-containing waste material shall be kept closed at all times, except when being filled or emptied;~~*Storage of Waste*

(A) Store, dispose of, recover, or recycle chromium or chromium-containing wastes generated from housekeeping activities of this subdivision using practices that do not lead to Fugitive Emissions;

(B) Keep containers with chromium-containing waste closed at all times, except when being filled or emptied; and

(C) Store containers with Hexavalent Chromium-containing waste material:

(i) In an Enclosed Storage Area:

(I) Clearly labeled with "Hexavalent Chromium Waste Storage Area"; and

(II) Designated for storage, where the owner or operator only conducts activities for maintenance of the storage area or to unload, store, access, or inspect stored materials in the area; or

(ii) In an area within a Building Enclosure excluding an Enclosed Storage Area:

(I) Meeting the requirements of subclauses (f)(5)(C)(i)(I) and (f)(5)(C)(i)(II); and

(II) With a physical barrier:

(1) Surrounding the containers with Hexavalent Chromium-containing waste;

(2) At least the height of the tallest container with Hexavalent Chromium-containing waste; and

(3) With the bottom of the barrier within six inches of the ground;

(6) Beginning December 2, 2018, use an A~~a~~pproved C~~c~~leaning M~~m~~ethod to clean floors within 20 feet of a buffing, grinding, or polishing workstation on days when buffing, grinding, or polishing are conducted; ~~and~~

(7) Beginning December 2, 2018, eliminate all flooring on walkways in the T~~t~~ank P~~p~~rocess A~~a~~reas that is made of fabric, such as carpets or rugs, where H~~h~~exavalent C~~c~~hromium containing materials can become trapped;~~.~~

(8) *Abatement of Hexavalent Chromium Prior to Performing any Cutting Activities of Roof Surfaces*

~~The owner or operator a facility shall:~~

(A) No more than 48 hours prior to roof cutting activities, C~~c~~lean all roof surface areas that will be affected by any roof cutting activities ~~surface areas~~ using a HEPA V~~v~~acuum and wet wiping with a damp cloth ~~prior to cutting into a building enclosure roof~~;

(B) Minimize F~~f~~ugitive E~~e~~missions during roof cutting activities using method(s) such as a temporary enclosure, ~~and/or~~ HEPA vacuuming, and/or wet wiping; and

(C) Notify the Executive Officer at least 48 hours prior to the commencement of any roof cutting activities into a B~~b~~uilding E~~e~~nclosure by calling 1-800-CUT-SMOG;~~.~~

(9) Ensure that if a HEPA V~~v~~acuum is used, that the HEPA filter is free of tears, fractures, holes or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system; and~~.~~

(10) According to the implementation schedule in Appendix 11 – Implementation Schedule, store in a closed container or in an E~~e~~nclosed S~~s~~torage A~~a~~rea~~.~~:

(A) Cleaning equipment and supplies used for housekeeping in subdivision (f) 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.

(g) *Best Management Practices*

(1) The owner or operator of a ~~f~~Facility shall minimize ~~d~~Dragout from a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, according to the implementation schedule in Appendix 11 – Implementation Schedule, for:

(A) For an Automated Line, meet the following:

(i) Install and maintain a Containment Device between each Tier I, Tier II, or Tier III Hexavalent Chromium Tank and the adjacent tanks in the process line; and

(ii) Prevent Dragout from falling outside the tank, unless a Containment Device captures and returns Dragout to a tank;

(B) For a non-Automated Line, either:

(i) Handle each part or equipment used to handle a part, so that Dragout containing chromium or Chromic Acid is not dripped outside a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, or Associated Process Tank; or

(ii) Use and maintain a Containment Device that:

(I) Captures Dragout that falls outside the tank; and

(II) Returns Dragout to a tank;

(C) For each Containment Device used to meet the requirements of subparagraph (g)(1)(A) or (g)(1)(B), meet the following:

(i) Is not Secondary Containment; and

(ii) Clean on a Weekly basis, such that there is no accumulation of visible residue dust, or pooling liquid potentially contaminated with Hexavalent Chromium.

~~(A) An automated line by installing a drip tray, or other containment device between a Tier I, Tier II, or Tier III Hexavalent Chromium Tank such that liquid does not fall through the space between tanks. The trays shall capture~~

~~and return the liquid to the tank(s), and be cleaned such that there is no accumulation of visible dust or residue on the drip tray or containment device potentially contaminated with hexavalent chromium.~~

~~(B) A non-automated line by handling each part, or equipment used to handle these parts, so that liquid containing chromium or chromic acid is not dripped outside a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, or associated process tank, unless the liquid is captured by a drip tray or other containment device. Facilities spraying down parts over the chromium electroplating or chromic acid 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 captured and returned to the chromium electroplating or chromic acid anodizing tank. Splash guards shall be cleaned such that there is no accumulation of visible dust potentially contaminated with hexavalent chromium.~~

(2) According to the implementation schedule in Appendix 11 – Implementation Schedule, the owner or operator of a ~~f~~Facility that conducts ~~e~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing operations shall not spray rinse parts or equipment that were most recently previously in a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, unless ~~the parts or equipment are fully lowered inside a tank where the liquid is captured inside the tank. The owner or operator of a facility may alternatively ensure that any liquid containing chromium is captured and returned to the tank by meeting the following conditions when rinsing above a tank~~:

~~(A) Installing a splash guard(s) at the tank that is free of holes, tears, or openings. Splash guards shall be cleaned weekly with water; or~~

(A) The parts or equipment are fully lowered inside a tank such that the liquid is captured inside the tank;

(B) For tanks located within an Automated Line ~~a process line utilizing an overhead crane system~~ that would be restricted by the installation of ~~s~~Splash ~~g~~Guards specified in subparagraph (g)(2)(~~A~~C), the owner or operator uses a ~~l~~Low ~~p~~Pressure ~~s~~Spray ~~n~~Nozzle in a manner where ~~water~~ liquid flows off of the part or equipment and into the tank; or~~.~~

(C) The owner or operator installs and maintains a Splash Guard:

(i) Free of holes, tears, or openings;

(ii) Such that liquid is captured and returned to a tank; and

(iii) That is cleaned on a Weekly basis, such that there is no accumulation of visible residue dust, or pooling liquid potentially contaminated with Hexavalent Chromium.

~~(3) Beginning January 1, 2019, the owner or operator of a facility shall maintain clear labeling of each tank within the tank process area with a tank number or other identifier, SCAQMD permit number, bath contents, 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 Hexavalent Chromium Tank, if applicable.~~

(3) *Tank Labeling*

The owner or operator of a Facility shall:

(A) Beginning January 1, 2019, maintain clear labeling of each tank within the Tank Process Area with:

(i) The South Coast AQMD permit number;

(ii) The tank number or other identifier;

(iii) Bath contents;

(iv) Maximum concentration (ppm) of Hexavalent Chromium, if applicable;

(v) Maximum operating temperature; and

(vi) Designation of whether it is a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, if applicable;

(B) Beginning January 1, 2026, maintain clear labeling of each tank within the Tank Process Area that has a permit application that has been deemed complete and is under evaluation for a permit to operate a physically altered tank without first obtaining the required South Coast AQMD approval for the alteration with:

(i) Application number; and

(ii) Proposed tank number;

(C) Maintain clear labeling of each tank outside of a Tank Process Area that contains Trivalent Chromium with information specified in clauses (g)(3)(A)(i) through (g)(3)(A)(iii).

(4) Beginning January 31, 2019, the owner or operator of a F~~f~~acility shall conduct all buffing, grinding, and polishing operations within a ~~b~~Building ~~e~~Enclosure.

(5) According to the implementation schedule in Appendix 11 – Implementation Schedule, the owner or operator of a ~~f~~Facility shall install a B~~b~~arrier to prevent the

migration of dust from buffing, grinding, or polishing areas to a Tier I, Tier II, or Tier III Hexavalent Chromium Tank.

(6) The owner or operator of a ~~f~~Facility shall not conduct compressed air cleaning or drying operations within 15 feet of any Tier II or Tier III Hexavalent Chromium Tank(s) unless:

(A) A B~~b~~arrier separates the compressed air cleaning or drying operation from the Tier II or Tier III Hexavalent Chromium Tank(s). A tank wall may function as the B~~b~~arrier provided the parts being air cleaned or dried are below the lip of the tank; or

(B) Compressed air cleaning or drying operations are conducted in a P~~p~~ermanent T~~t~~otal E~~e~~nclosure.

(7) The owner or operator of the Facility shall:

(A) Not walk or stand on a Containment Device used to meet the requirements of paragraph (g)(1), unless:

(i) Prior to walking or standing on the Containment Device, clean the Containment Device using an Approved Cleaning Method such that there is no accumulation of visible residue, dust, or liquid potentially contaminated with Hexavalent Chromium; and

(ii) When walking or standing on the Containment Device the process line containing the Containment Device is not processing parts;

(B) Maintain the Containment Device used to meet the requirements of paragraph (g)(1) clear of all objects, except during maintenance or housekeeping activities provided the process line containing the Containment Device is not processing parts.

(h) *Air Pollution Control Technique Requirements*

(1) The owner or operator of a ~~f~~Facility shall not remove or render inoperable ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device(s) for ~~hard or decorative c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tanks using Hexavalent Chromium unless it is replaced by ~~a~~Air ~~p~~Pollution ~~c~~Control ~~t~~Techniques meeting the requirements in Table 1 - Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks, or the ~~f~~Facility is operating under an approved alternative compliance method pursuant to subdivision (i).

(2) *Emission Standards for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Facilities*

(A) The owner or operator of a ~~f~~Facility shall control ~~h~~Hexavalent ~~c~~Chromium emissions discharged to the atmosphere by meeting the requirements identified below in Table 1 - Hexavalent Chromium Emission Limits for Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks. Alternatively, a ~~f~~Facility can choose to comply by operating under an approved alternative compliance method pursuant to subdivision (i).

Table 1: Hexavalent Chromium Emission Limits for Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks

Facility Type	Distance to Sensitive Receptor (feet)	Annual Permitted Amp-Hrs	Hexavalent Chromium Emission Limit* (mg/amp-hr)	Minimum Air Pollution Control Technique
Existing Facility	≤ 330[1]	≤ 20,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified Ssurface Ttension.[3]
Existing Facility	≤ 330[1]	> 20,000	0.0015[2]	Add-on Aair Ppollution Ceontrol Ddevice(s) or Aadd-on Nnon-ventilated Aair Ppollution Ceontrol Ddevice(s).
Existing Facility	> 330[1]	≤ 50,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified Ssurface Ttension.[3]
Existing Facility	> 330[1]	> 50,000 and ≤ 500,000	0.0015[2]	Use of an Aair Ppollution Ceontrol Ttechnique that controls Hhexavalent Cehromium.
Existing Facility	> 330[1]	> 500,000	0.0015[2]	Add-on Aair Ppollution Ceontrol Ddevice(s) or Aadd-on Nnon-ventilated Aair pollution Ceontrol Ddevice(s).
Modified Facility	Any	Any	0.0015[2]	Using an Aadd-on Aair Ppollution Ceontrol Ddevice(s), or an approved alternative method pursuant to subdivision (i).
~~New Facility~~Recent Facility	Any	Any	0.0011[2]	Using a HEPA Aadd-on Aair Ppollution Ceontrol Ddevice, or an approved alternative method pursuant to subdivision (i).

* Functional Chrome Plating tanks subject to more stringent requirements beginning January 1, 2026 in subdivision (x)

[1] Distance shall be measured, rounded to the nearest foot, from the edge of the Cehromium Eelectroplating or Cehromic Aacid Aanodizing Ttank nearest the Ssensitive Rreceptor (for facilities without Aadd-on Aair Ppollution Ceontrol Ddevices), or from the stack or centroid of stacks (for facilities with Aadd-on Aair Ppollution Ceontrol Ddevices), to the property line of the nearest Ssensitive Rreceptor. The symbol ≤ means less than or equal to. The symbol > means greater than.

[2] As demonstrated by source test requirements under subdivision (k).

[3] Alternatively, a Ffacility may install an Aadd-on Aair Ppollution Ceontrol Ddevice(s) or Aadd-on Nnon-ventilated Aair Ppollution Ceontrol Ddevice(s) that controls Hhexavalent Cechromium emissions to below 0.0015 mg/amp-hr as demonstrated through source test requirements under subdivision (k).

Requirements for a Recent Facility using Hexavalent Chromium

(B) The owner or operator of a ~~new~~ Recent ~~f~~Facility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating shall:

(i) Demonstrate in its South Coast AQMD permit application that the ~~new~~ Recent ~~f~~Facility is not located in an area that is zoned for residential or mixed use; and

(ii) Demonstrate in its South Coast AQMD permit application that the ~~new~~Recent ~~f~~Facility is not located within 1,000 feet from the boundary of a ~~s~~Sensitive ~~r~~Receptor, a ~~s~~School under ~~c~~Construction, or any area that is zoned for residential or mixed use.

(C) A ~~new~~ Recent ~~f~~Facility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating shall be deemed to meet the requirements specified in clauses (h)(2)(B)(i) and (h)(2)(B)(ii) if one of the following criteria is met, even if the F~~f~~acility does not meet the requirement at the time of initial start-up:

(i) The requirements specified in clauses (h)(2)(B)(i) and (h)(2)(B)(ii) are met at the time a~~n~~ South Coast AQMD Permit to Construct is issued, and ~~s~~Substantial ~~u~~Use of the South Coast AQMD Permit to Construct takes place within one year after it is issued; or

(ii) The requirements specified in clauses (h)(2)(B)(i) and (h)(2)(B)(ii) are met at the time a~~n~~ South Coast AQMD Permit to Construct is issued, and ~~s~~Substantial ~~u~~Use of the South Coast AQMD Permit to Construct occurs before any zoning change that affects the operation's ability to meet the requirement at the time of initial start-up.

(D) Prior to initial start-up, the owner or operator of a ~~new~~ Recent ~~f~~Facility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating shall meet the requirements specified in paragraph (h)(2).

(3) ~~*Decorative Chromium Electroplating*~~ *Tanks Using ~~a~~ Trivalent Chromium ~~Bath~~Process*

During Ttank Ooperation, the owner or operator of a Ffacility shall control chromium emissions discharged from a tank using Trivalent Chromium Process to the atmosphere by meeting one or more of the requirements identified below.

Method of compliance	Requirement
Add-on aAir pPollution eControl dDevice, or eChemical fFume sSuppressants forming a fFoam bBlanket, or mMechanical fFume sSuppressants (e.g. polyballs)	≤ 0.01 milligrams of total chromium per dry standard cubic meter of air (mg/dscm) (4.4x10-6 gr/dscf) as demonstrated with an initial source test using an approved method pursuant to paragraph (k)(52)
Chemical fFume sSuppressants containing a wWetting aAgent that is not a PFOS based fume suppressant	Use, per manufacturer instructions, Wwetting Aagent as Bbath Ceomponent and comply with recordkeeping and reporting provisions of paragraphs (o)(10) and (p)(5)

(4) *Tier III Hexavalent Chromium Tanks (Excluding Chromium Electroplating and Chromic Acid Anodizing Tanks using Hexavalent Chromium)*

(A) The owner or operator of a fFacility shall collect and vent hHexavalent eChromium emissions from any Tier III Hexavalent Chromium Tank, excluding Cehromium Eelectroplating and Cehromic Aacid Aanodizing Ttanks subject to paragraph (h)(2), to an aAdd-on aAir pPollution eControl dDevice, or an approved alternative compliance method pursuant to subdivision (i), that meets the following hHexavalent eChromium emission limits as demonstrated by source test requirements under subdivision (k):

(i) 0.0015 mg/amp-hr, for eExisting or mModified fFacilities, if any tank(s) vented to an air pollution control device are electrolytic;

(ii) 0.0011 mg/amp-hr, for ~~new~~ Recent fFacilities, if any tank(s) vented to an air pollution control device are electrolytic;

(iii) 0.20 mg/hr, if all tanks vented to the aAdd-on aAir pPollution eControl dDevice are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or

(iv) 0.004 mg/hr-ft^2, with the applicable surface area based on the surface area of all Tier III Hexavalent Chromium Tank(s) and other tanks required to be vented to an aAdd-on aAir pPollution eControl dDevice with a South Coast AQMD Permit to Operate, provided all tanks are

not electrolytic, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm.

(B) For Tier III Hexavalent Chromium Tanks specified in subparagraph (h)(4)(A) existing prior to November 2, 2018, the owner or operator of a ~~f~~Facility shall submit complete South Coast AQMD permit applications for ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Devices to the Executive Officer as specified below:

Table 2: Permit Submittal Schedule for Add-on Air Pollution Control Devices for Previously Existing Tier III Hexavalent Chromium Tanks[1]

Electrolytic Process at the Facility	Compliance Date for South Coast AQMD Permit Application Submittal for Add-on Air Pollution Control Device
Chromic Acid Anodizing	May 1, 2019
Hard Chromium Electroplating	November 2, 2019
Decorative Chromium Electroplating	April 30, 2020

[1] For multiple electrolytic processes at a ~~f~~Facility, the owner or operator shall comply with the earliest compliance date.

(i) The owner or operator of a ~~f~~Facility shall conduct a source test prior to the issuance of a South Coast AQMD Permit to Operate.

(ii) Beginning no later than December 2, 2018 until the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device specified in subparagraph (h)(4)(C) has been installed, cover the tank no later than 30 minutes after ceasing operation of the tank. Tank covers shall be free of holes, tears, and gaps.

(C) The owner or operator of a ~~f~~Facility shall:

(i) Install an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device to meet the requirements under subparagraph (h)(4)(A) no later than 12 months after a Permit to Construct for the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device has been issued by the Executive Officer;

(ii) Implement the alternative compliance method to meet the requirements under subparagraph (h)(4)(A) based on the timeframe specified in the approved alternative compliance method; or

(iii) No later than two years after approval, implement an approved Hexavalent Chromium Phase-Out Plan pursuant to subdivision (u).

(D) The owner or operator of a ~~f~~Facility shall not be subject to the requirement of subparagraph (h)(4)(A) to vent a Tier III Hexavalent Chromium Tank to an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device if the uncontrolled ~~h~~Hexavalent ~~c~~Chromium emission rate of the tank is less than 0.2 mg/hr, as demonstrated

by a South Coast AQMD approved source test. The source test shall be conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469*.

(5) *Tier II Hexavalent Chromium Tank*

The owner or operator of a ~~f~~Facility shall control ~~h~~Hexavalent ~~e~~Chromium emissions from a Tier II Hexavalent Chromium Tank by:

(A) Utilizing a tank cover, M~~m~~echanical F~~f~~ume S~~s~~uppressant, or other method approved by the Executive Officer, no later than January 31, 2019; or

(B) Meeting the requirements for a Tier III Hexavalent Chromium Tank specified in subparagraph~~s~~ (h)(4)(A) and (h)(4)(B).

(6) *Ventilation Design and Operation of Air Pollution Control Techniques*

The owner or operator of a F~~f~~acility shall operate A~~a~~ir P~~p~~ollution C~~e~~ontrol T~~t~~echniques required under subdivisions (h) or (x), or paragraph (w)(2) at or above the applicable minimum hood induced capture velocity specified in the most current edition (i.e., at the time the South Coast AQMD permit application was deemed complete by South Coast AQMD) of *Industrial Ventilation, A Manual of Recommended Practice for Design,* published by the American Conference of Governmental Industrial Hygienists or an alternative ventilation velocity approved by the Executive Officer.

(i) *Alternative Compliance Methods for Existing, Modified, and ~~New~~ Recent Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities*

The owner or operator of a ~~f~~Facility that elects to submit an alternative compliance method to meet the emission limits specified in paragraphs (h)(2) and (h)(4) shall:

(1) Submit a~~n~~ South Coast AQMD permit application that includes the information contained in Appendix 7 to the Executive Officer; and

(2) Demonstrate that the alternative method is enforceable, provides an equal, or greater ~~h~~Hexavalent ~~e~~Chromium emission reduction, and provides an equal, or greater risk reduction than compliance with the emission limits specified in paragraphs (h)(2) and (h)(4)~~.~~.

(j) *Training and Certification*

(1) Chromium ~~e~~Electroplating and ~~e~~Chromic ~~a~~Acid ~~a~~Anodizing personnel responsible for environmental compliance, maintaining E~~e~~lectroplating B~~b~~ath chemistries, and testing and recording ~~e~~Electroplating or Anodizing ~~b~~Bath S~~s~~urface T~~t~~ension data

shall complete a South Coast AQMD approved training program every two years and receive a certification issued by the Executive Officer. ~~For new facilities, initial training must be completed within a period not to exceed two years from start-up.~~

(2) Only persons who have completed a South Coast AQMD approved training program and have received a certification issued by the Executive Officer shall be responsible for recordkeeping associated with environmental compliance, maintaining Eelectroplating Bbath chemistries, and testing and recording Eelectroplating Bbath Ssurface Ttension data.

(3) Notwithstanding paragraph (j)(2), in the event that all persons who have completed a South Coast AQMD approved training program and received a certification issued by the Executive Officer leaves employment at a Ffacility, the owner or operator of a fFacility ~~may~~ shall be responsible for recordkeeping associated with environmental compliance, maintaining Eelectroplating Bbath chemistries, and testing and recording Eelectroplating Bbath Ssurface Ttension data for a period not to exceed two years.

(k) *Source Test Requirements and Test Methods*

(1) *Source Test Requirements*

(A) The owner or operator of a fFacility required to meet an emission limit pursuant to paragraphs (h)(2) or (h)(4) shall conduct an initial source test and subsequent source tests pursuant to the schedule specified in Table 3 – Source Tests Schedule.

Table 3: - Source Tests Schedule

Facility-wide Permitted Annual Ampere-Hours	Due Date of Initial Source Test Protocol[a]	Initial Source Test Date	Due Date of Subsequent Source Test Protocol	Subsequent Source Tests[b]
> 20,000,000	No later than May 1, 2019	No later than 120 days after approval of the initial source test protocol.	180 days prior to the due date of the subsequent source test.	No later than 60 months from the day of the most recent source test that demonstrates compliance with all applicable requirements
≤ 20,000,000 and > 1,000,000	No later than November 2, 2019			
≤ 1,000,000	No later than April 30, 2020			No later than 84 months from the day of the most recent source test that demonstrates compliance with all applicable requirements

[a] New or modified Aair Ppollution Ceontrol Ttechniques used to meet the emission limits under paragraphs (h)(1), (h)(2), or (h)(4) permitted after November 2, 2018, shall submit the initial source test protocol 60 days after initial start-up of the Aair Ppollution Ceontrol Ttechnique.
[b] Functional Chrome Plating facilities are subject to more frequent source testing requirements.

(B) The owner or operator of a fFacility may conduct the initial source test after the 120 days specified in Table 3 – Source Tests Schedule, provided:
  (i) A written request 30 days before the due date of the source test is submitted to the Executive Officer;
  (ii) The additional time needed is substantiated by reason(s) outside of their control; and
  (iii) The Executive Officer approves the request in writing no later than the due date of the source test.

(C) The owner or operator of a fFacility may use an existing source test conducted after January 1, 2015 to demonstrate compliance with the initial source test requirements of subparagraph (k)(1)(A), provided:
  (i) The applicable emission limits in subdivision (h) are demonstrated;
  (ii) The operating conditions during the source test are representative of the operating conditions as of November 2, 2018; and
  (iii) Test methods specified in paragraph (k)(25) are used.

(D) No later than December 2, 2018, an owner or operator of a fFacility using a source test pursuant to subparagraph (k)(1)(C) that has not been approved, shall submit the source test to the Executive Officer for approval.

(E) An owner or operator of a fFacility that elects to use an existing source test pursuant to subparagraph (k)(1)(C), shall conduct the first subsequent source test no later than January 1, 2024 and conduct all other subsequent source tests pursuant to schedule in Table 3 - Source Tests Schedule.

(F) An owner or operator of fFacility that elects to meet an emission limit specified in paragraph (h)(2) using only a certified Wwetting Aagent Cehemical Ffume Ssuppressant or a certified alternative to a Wwetting Aagent Cehemical Ffume Ssuppressant shall not be subject to the requirements of subparagraph (k)(1)(A).

(2) *Functional Chrome Plating Facilities Required to Meet Subdivision (x) -Initial Source Test*

(A) *Addendum to Source Test Protocol*

No later than [30 days following Date of Rule Adoption], an owner or operator of a Facility required to meet the requirements of subdivision (x) shall submit

the following to sourcetesting@aqmd.gov or a South Coast AQMD Source Test Tracking System web portal:

(i) The most recently approved source test protocol; and

(ii) An addendum identifying change(s) in operation or source test procedure to meet the applicable requirements in subdivision (w) or (x).

(B) *Submission of a New Source Test Protocol*

No later than 60 days after the Executive Officer has requested an updated or new source test protocol, an owner or operator of a Facility required to meet the requirements of subdivision (x) shall submit the new or updated source test protocol to sourcetesting@aqmd.gov or a South Coast AQMD Source Test Tracking System web portal.

(C) *Conducting Initial Source Test*

No later than January 1, 2026, an owner or operator of a Facility required to meet the requirements of subdivision (x) shall demonstrate compliance with the applicable emission limit(s) by conducting a source test:

(i) Between January 1, 2024 and December 31, 2025;

(ii) Meeting the requirements of paragraph (k)(5), subparagraph (k)(7)(A), and paragraphs (k)(8) through (k)(10);

(iii) Demonstrating the combined emission rate, from all Tier II and Tier III Hexavalent Chromium Tanks connected to the same Add-on Air Pollution Control Device that is also connected to a Functional Chrome Plating Tank, meets the applicable emission limit specified in subdivision (x) as measured downstream of the Add-on Air Pollution Control Device when all applicable Tier II and Tier III Hexavalent Chromium Tanks are in operation;

(iv) Pursuant to one of the following:

(I) The approved addendum and the most recently approved source test protocol submitted pursuant to subparagraph (k)(2)(A);

(II) The most recently approved source test protocol, if the source test was conducted prior to [Date of Rule Adoption]; or

(III) The most recently approved source test protocol approved after [Date of Rule Adoption], if the source test was conducted on or after [Date of Rule Adoption].

(3) *Functional Chrome Plating Facilities Required to Meet Subdivision (x) – Subsequent Source Test*

Beginning January 1, 2026, an owner or operator of a Facility required to meet the requirements of subdivision (x) shall:

(A) At least 60 days prior to conducting a subsequent source test, submit a source test protocol if the Executive Officer has requested an updated or new source test protocol; and

(B) Conduct a subsequent source test:

(i) No later than the end of the second calendar year from the calendar year of the last source test that meets the requirements specified in clauses (k)(2)(C)(ii) through (iv), as applicable; and

(ii) Meeting the requirements specified in clauses (k)(2)(C)(ii) through (iv), as applicable.

(4) *Facilities Required to Meet Subdivision (w) – Initial Source Test*

(A) An owner or operator of a Functional Chrome Plating Facility required to meet the requirements of subdivision (w) shall:

(i) At least 60 days prior to conducting the first source test to demonstrate compliance with the applicable requirements in paragraph (w)(2), submit to sourcetesting@aqmd.gov or a South Coast AQMD Source Test Tracking System web portal the items specified in clauses (k)(2)(A)(i) through (ii); and

(ii) No later than 60 days after initial start of the new or modified Tier III Hexavalent Chromium Tank, conduct a source test that meets the requirements in clauses (k)(2)(C)(ii) through (iv), as applicable.

(B) An owner or operator of a Decorative Chromium Electroplating Facility required to meet the requirements of subdivision (w) shall:

(i) Meet the requirements specified in clause (k)(4)(A)(i) and (ii); and

(ii) No later than 60 days after initial start of the new or modified equipment, demonstrate all Decorative Chromium Electroplating Tank(s) using Hexavalent Chromium at the Facility meet the applicable emission limit specified in subdivision (w) as measured

downstream of the Add-on Air Pollution Control Device or Add-on Non-ventilated Air Pollution Control Device with a source test meeting the requirements of (k)(2)(C)(ii) and (iv), as applicable.

(~~2~~5) *Approved Test Methods*

(A) Emissions testing shall be conducted in accordance with one of the following test methods:

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

(ii) U.S. EPA Method 306, (40 CFR 63 Appendix A) with a minimum of three test runs; or

(iii) South Coast AQMD Method 205.1, for results reported as total chromium.

(B) Emissions testing for ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Devices shall be conducted in accordance with a Smoke Test for Add-on Non-v~~V~~entilated Air Pollution Control Device(s). (See Appendix 5).

(C) Surface ~~t~~Tension using a T~~t~~ensiometer shall be measured in accordance with U.S. EPA Method 306B (40 CFR 63 Appendix A). Surface T~~t~~ension using a S~~s~~talagmometer shall be measured using the procedure set forth in Appendix 9, or an alternative procedure approved by the Executive Officer.

(~~3~~6) *Use of Emissions Screening Tests*

(A) The owner or operator of a ~~f~~Facility, except a Facility subject to the requirements of subdivision (w) or (x), that elects to use an emissions screening test in lieu of a source test to comply with the ~~-~~subsequent source test requirements in Table 3 - Source Tests Schedule shall conduct an emissions screening test:

(i) Consisting of one run to evaluate the ~~h~~Hexavalent ~~c~~Chromium emissions for a Tier II or Tier III Hexavalent Chromium Tank;

(ii) In accordance with a source test protocol approved by the Executive Officer; and

(iii) Representative of the operating conditions during the most recent source test.

(B) The owner or operator of a ~~f~~Facility, except a Facility subject to the requirements of subdivision (w) or (x), may conduct an emissions screening test in lieu of a source test to comply with the requirements for an initial source test in Table 3 – Source Tests Schedule provided:

(i) The emissions screening test meets the requirements of clauses (k)(~~3~~6)(A)(i) through (iii);

(ii) The owner or operator of a ~~f~~Facility conducted a source test after January 1, 2009 that meets the requirements of clauses (k)(1)(C)(i) through (iii); and

(iii) No later than December 2, 2018, an owner or operator of a ~~f~~Facility using a source test that is not approved to satisfy clause (k)(~~3~~6)(B)(ii) shall submit the source test to the Executive Officer for approval.

(C) Within 30 days of receiving the results, the owner or operator of a F~~f~~acility shall submit the results of the emissions screening test to the Executive Officer.

(D) The owner or operator of a ~~f~~Facility shall conduct a source test using an approved test method specified under paragraph (k)(~~2~~5) within 60 days of conducting an emissions screening test that:

(i) Failed the capture efficiency test(s) specified in the source test protocol;

(ii) Exceeded an emission limit specified in the South Coast AQMD Permit to Operate; or

(iii) Exceeded an emission standard specified in subdivision (h).

(4~~7~~) *Source Test Protocol*

(A) The source test protocol shall include the source test criteria, all assumptions, required data, and calculated targets for testing the following:

(i) Target chromium concentration;

(ii) Preliminary chromium analytical data; and

(iii) Planned sampling parameters.

(B) The most recent South Coast AQMD approved source test protocol may be used for subsequent source tests, provided there are no changes to the tank dimensions, collection slots, ventilation flow rate, sampling location(s), sampling method, or analytic method(s), unless the Executive Officer requests an updated or new source test protocol.

(~~5~~8) *Emission Points Test Requirements*

Each emission point subject to the requirements of this rule shall be tested unless a waiver is granted by U.S. EPA and approved by the Executive Officer.

(~~6~~9) *Capture Efficiency*

The owner or operator of a ~~f~~Facility that is required to conduct a source test pursuant to subdivision (k) shall demonstrate that each ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control

~~d~~Device meets the design criteria and ventilation velocities specified in *Industrial Ventilation: A Manual of Recommended Practice for Design* authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.

(~~7~~1*Smoke Test*

0)

The owner or operator of a ~~f~~Facility shall conduct an acceptable smoke test for each ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device pursuant to Appendix 5 and each ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device pursuant to Appendix 8.

(l) ~~*Certification and Approval of*~~ *Wetting Agent Chemical Fume Suppressants Requirements for a Chromium Electroplating or Chromic Acid Anodizing Tank Using Hexavalent Chromium*

(1) The owner or operator of a F~~f~~acility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating shall not add PFOS based ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants to any ~~c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~bath~~ Tank using Hexavalent Chromium.

(2) The owner or operator of a ~~f~~Facility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating that elects to use a ~~w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant to comply with the requirements of this rule shall only use a ~~w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant(s) that:

(A) Reduces or suppresses ~~h~~Hexavalent ~~c~~Chromium emissions at the surface of an ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath to meet an emission factor below 0.01 milligrams per ~~a~~Ampere hour,

(B) Meets a ~~s~~Surface ~~t~~Tension below 40 dynes/cm, as measured by a ~~s~~Stalagmometer, or below 33 dynes/cm, as measured by a ~~t~~Tensiometer, unless an alternative is approved pursuant to subdivision (q), and

(C) Has been certified by the Executive Officer based on a certification process conducted by South Coast AQMD and CARB.

(3) The owner or operator of a ~~f~~Facility using Hexavalent Chromium for either Decorative Chromium Electroplating or Functional Chrome Plating shall use a ~~certified w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant in accordance with the applicable certification and ~~applicable~~ manufacturer's specifications and instructions.

~~(4) No later than January 1, 2020, the owner or operator of a facility shall be notified by the Executive Officer the status of:~~

~~(A) Any wetting agent chemical fume suppressant available on and after July 1, 2021 that meets the requirements specified in paragraphs (l)(2); and~~

~~(B) Any potential wetting agent chemical fume suppressant going through the certification process conducted by SCAQMD and CARB.~~

~~(5) If a wetting agent chemical fume suppressant will not be available by July 1, 2021, the owner or operator of a facility shall only add a wetting agent chemical fume suppressant to a chromium electroplating or chromic acid anodizing tank based on the information in the notice as specified by paragraph (l)(4) and:~~

~~(A) On or before July 1, 2021, meet the hexavalent chromium emission limit specified in Table 1 – Hexavalent Chromium Emission Limits for Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks;~~

~~(B) On or before July 1, 2022, phase-out the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing tanks that use a wetting agent chemical fume suppressant that meets the requirements of paragraph (l)(6); or~~

~~(C) On or before July 1, 2021 implement an alternative to a wetting agent chemical fume suppressant that meets the requirements of paragraph (l)(7).~~

~~(6) The owner or operator of a facility that elects to meet the requirements of paragraph (l)(5) by phasing out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank shall:~~

~~(i) No later than January 1, 2021, submit a written and signed commitment to the Executive Officer stating that the facility will phase out by July 1, 2022, the use of hexavalent chromium in the electroplating or chromic acid anodizing tank(s) that use a wetting agent chemical fume suppressant.~~

~~(ii) No later than July 1, 2022 cease operating and surrender SCAQMD permits to operate the chromium electroplating or chromic acid anodizing tank(s) that use a wetting agent chemical fume suppressant.~~

~~(7) The owner or operator of a facility that elects to meet the requirements of paragraph (l)(5) by implementing an alternative to a wetting agent chemical fume suppressant, shall submit a permit application for the chromium electroplating or chromic acid anodizing tank(s) that includes the alternative and any conditions specified in the approval of the alternative in paragraph (l)(8).~~

~~(8) The alternative to a wetting agent chemical fume suppressant specified in paragraph (l)(7) shall:~~

~~(A) Meet an emission limit that is equally effective as the emission limit required for a wetting agent chemical fume suppressant specified in subparagraph (l)(2)(A);~~

~~(B) Be approved by the Executive Officer in consultation with CARB to meet the requirement specified in subparagraph (l)(2)(A); and~~

~~(C) Be used by the owner or operator in accordance with the approval specified in subparagraph (l)(8)(B).~~

~~(9) An owner or operator of a facility that fails to phase out the use of hexavalent chromium by July 1, 2022 pursuant to paragraph (l)(6) will be required to cease operation of the electroplating or chromic acid anodizing tank that contains hexavalent chromium until the facility can meet the emission limits specified in paragraph (h)(2) for the subject tank.~~

(m) *Parameter Monitoring*

(1) *Add-On Air Pollution Control Device(s) and Add-On Non-Ventilated Air Pollution Control Device(s)*

(A) *Pressure and Air Flow*

The owner or operator of a ~~f~~Facility shall continuously monitor the operation of the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device by:

(i) Installing and maintaining a device to measure the applicable pressures and air flows specified in Table 4 ─ Pressure and Air Flow Measurement Parameters;

(ii) Installing each device so that it is accessible and in clear sight of the operation or maintenance personnel;

(iii) Maintaining all parameters identified in Table 4 ─ Pressure and Air Flow Measurement Parameters within the range specified in the ~~f~~Facility's South Coast AQMD Permit to Operate;

(iv) Labeling each mechanical gauge with the corresponding acceptable operating ranges established during the most recent source test and within the range specified in the South Coast AQMD Permit to Operate; and

(v) Installing and ~~M~~maintaining the mechanical gauges in accordance ~~to~~ with the requirements in Appendix 4.

Table 4~~:~~ - Pressure and Air Flow Measurement Parameters

Permitted Air Pollution Control Technique	Location	Parameter Monitored	Units	Monitoring Start Date
Push-Pull Systems	Push Manifold	Static Pressure	Inches of water	60 Days After Completion of Initial Source Test or within January 1, 2019
All	Collection Manifold or Any Location within the System Using a Flow Meter	Static Pressure or Volumetric Flow Rate	Inches of water or Actual Cubic Feet per Minute	60 Days After Completion of Initial Source Test or within January 1, 2019
Existing on or Before November 2, 2018	Across Each Stage of the Control Device	Differential Pressure	Inches of water	November 2, 2018
Installed after November 2, 2018	Across Each Stage of the Control Device	Differential Pressure	Inches of water	60 Days After Completion of Initial Source Test

(B) *Measurements of Air Velocities at Collection Slots and Push Air Manifold Pressure for Add-on Air Pollution Control Devices* ~~*Velocity of Collection Slots*~~ ~~Beginning 60 days after the completion of the initial source test required in Table 3 – Source Tests Schedule and at least once every 180 days thereafter, the~~ The owner or operator of a ~~f~~Facility shall demonstrate that emissions are captured by the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device that meets the requirements in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring: ~~using any of the following:~~

(i) No later than 60 days after completion of the initial source test required in Table 3 – Source Test Schedule and no later than 180 days following the most recent source test demonstrating compliance with the applicable emission limit thereafter using any of the following:

~~(i)~~ (I) A hot-wire anemometer;

~~(ii)~~ (II) A vane anemometer; or

~~(iii)~~ (III) A device or method approved by the Executive Officer.~~:~~; and

(ii) In lieu of meeting the requirements of clause (m)(1)(B)(i) for an Add-on Air Pollution Control Device that controls a tank subject to the

emission limits specified in subdivision (x)~~:~~, no later than 365 days following the most recent source test demonstrating compliance with the applicable limit using one of the devices or methods specified in subclauses (m)(1)(B)(i)(I) through (m)(1)(B)(i)(III).

Table 5~~:~~ - Add-on Air Pollution Control Device Parameter Monitoring[1,2]

	Collection Slot(s) Velocity[1,3]	**Push Air Manifold Pressure (for push-pull systems only)**	**Required Action**
Row 1: Acceptable Measurement	> 95% of the most recent passing source test or emission screening; or ≥ 2,000 fpm	95-105% compared to the most recent passing source test or emission screening	None
Row 2: Repairable Measurement	90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm	90-95% or 105-110% of the most recent passing source test or emission screening test	Repair or replace, and re-measure within 3 calendar days of measurement
Row 3: Failing Measurement	< 90% of the most recent passing source test or emission screening test, or <1,800 fpm	> 110% or < 90% of the most recent passing source test or emission screening test	Immediately shut down any tanks controlled by the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device that had a failing measurement

[1] If the measured slot velocity appears in multiple rows, the owner or operator shall implement the required action in the lower numbered row. For example the owner or operator would implement the required action in Row 2, if the measured slot velocity shows a repairable measurement (row 2) or a failing measurement (row 3).

[2] The owner or operator shall measure and evaluate the applicable velocity or pressure at each location tested during the most recent source test that demonstrated compliance with the applicable emission limit.

[3] Alternative slot velocities less than 2,000 fpm would be specified in the most recently approved source test report demonstrating compliance with the applicable emission limit.

(C) *Repairable Measurements*

The owner or operator of a ~~f~~Facility with an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device for a Tier II or Tier III Hexavalent Chromium Tank that demonstrates a repairable measurement according to Table 5 – Add-on Air Pollution Control Device Parameter Monitoring shall:

(i) Perform the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring for a repairable measurement~~,~~;

(ii) Demonstrate an acceptable measurement within the time period established for the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring~~,~~; and

(iii) Immediately shutdown the Tier II or Tier III Hexavalent Chromium Tank if an acceptable measurement is not demonstrated within the time period established for the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring. The tank shall remain shutdown until an acceptable measurement is measured.

(D) *Failing Measurement*

The owner or operator of a ~~f~~Facility with an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device for a Tier II or Tier III Hexavalent Chromium Tank that demonstrates a failing measurement according to Table 5 – Add-on Air Pollution Control Device Parameter Monitoring shall perform the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring for a failing measurement. The tank shall remain shutdown until an acceptable measurement is measured.

(E) *Smoke Test Requirements*

Once every 180 days the owner or operator of a ~~f~~Facility subject to ~~sub~~paragraph (k)(10~~7~~) shall conduct a smoke test:

(i) Using a method described in Appendix 5, Appendix 8, or any other method deemed acceptable by the Executive Officer; and

(ii) Within 30 days of start-up for new and modified A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~c~~ontrol D~~d~~evices or A~~a~~dd-on N~~n~~on-ventilated A~~a~~ir P~~p~~ollution C~~c~~ontrol D~~d~~evices.

(F) *Failure of Smoke Test*

The owner or operator of a ~~f~~Facility shall immediately shut down all Tier II and Tier III Hexavalent Chromium Tanks associated with the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device or ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device if an acceptable smoke test for each ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device pursuant to Appendix 5 and each ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device pursuant to Appendix 8 is not conducted. The Tier II and Tier III Hexavalent Chromium Tank shall remain shut down until an acceptable smoke test is conducted.

(G) *HEPA Filters*

Beginning 60 days after completion of the initial source test required by subdivision (k), the owner or operator of a ~~f~~Facility with an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device equipped with HEPA filters shall ensure that the device to monitor pressure drop pursuant to subparagraph (m)(1)(A):

(i) Is equipped with ports to allow for periodic calibration in accordance with manufacturer specifications;

(ii) Is calibrated according to manufacturer specifications at least once every calendar year; and

(iii) Is maintained in accordance with manufacturer specifications.

(2) *Wetting Agent Chemical Fume Suppressants (Excluding ~~Decorative Chromium Electroplating~~ Tanks Using a Trivalent Chromium ~~Bath~~Process)*

(A) The owner or operator of a ~~f~~Facility shall monitor the ~~s~~Surface ~~t~~Tension of the ~~c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tank that contains a certified ~~w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant with either a ~~s~~Stalagmometer or ~~t~~Tensiometer using the applicable method pursuant to subparagraph (k)(~~2~~5)(C). The ~~s~~Surface ~~t~~Tension shall be maintained below the respective value established in the list of certified ~~w~~Wetting ~~a~~Agent ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants ~~pursuant to subdivision (l)~~, or at or below a value specified in the South Coast AQMD Permit to Operate.

(B) The owner or operator of a ~~f~~Facility shall measure the ~~s~~Surface ~~t~~Tension every third operating day but not less than once per week.

(C) If at any time the ~~s~~Surface ~~t~~Tension required by subparagraph (m)(2)(A) is not maintained, the owner or operator of a ~~f~~Facility shall measure the ~~s~~Surface ~~t~~Tension:

(i) Daily for 20 consecutive operating days; and

(ii) Resume the measurement schedule pursuant to subparagraph (m)(2)(B).

(D) The owner or operator of a ~~f~~Facility operating under an approved alternative compliance method pursuant to subdivision (i), and using ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants as all or partial control of ~~h~~Hexavalent ~~c~~Chromium emissions shall measure and monitor the ~~s~~Surface ~~t~~Tension of the ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath each operating day. The ~~s~~Surface ~~t~~Tension shall be maintained at or below the ~~s~~Surface T~~t~~ension measured during the source test.

(3) *Fume Suppressants Forming a Foam Blanket*

(A) The owner or operator of a ~~f~~Facility shall maintain the ~~f~~Foam ~~b~~Blanket thickness across the surface of the ~~c~~Chromium ~~e~~Electroplating or ~~c~~Chromic ~~a~~Acid ~~a~~Anodizing ~~t~~Tank established during the most recently approved source test to demonstrate compliance with the emission limit specified in subdivision (w) or (x) or paragraphs (h)(2) or (h)(4).

(B) The owner or operator of a ~~f~~Facility shall measure the ~~f~~Foam ~~b~~Blanket thickness each operating day.

(C) If at any time the ~~f~~Foam ~~b~~Blanket thickness required by subparagraph (m)(3)(A) is not maintained, the owner or operator of a ~~f~~Facility shall measure the ~~f~~Foam ~~b~~Blanket thickness:

(i) Hourly for 15 consecutive operating days; and

(ii) Resume the measurement schedule pursuant to subparagraph (m)(3)(B).

(4) *Polyballs or Similar Mechanical Fume Suppressants*

The owner or operator of a ~~f~~Facility shall visually inspect the Tier II or Tier III Hexavalent Chromium Tank and maintain coverage comparable to the coverage during the source test each operating day.

(n) *Inspection, Operation, and Maintenance Requirements*

(1) *Inspection and Maintenance*

(A) The owner or operator of a ~~f~~Facility using an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device or ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device shall comply with the applicable inspection and maintenance requirements listed in Table 4-1 of Appendix 4.

(B) The owner or operator of a ~~f~~Facility using an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device or ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device custom designed for a specific operation shall develop operating and maintenance requirements for approval by the Executive Officer. The requirements and frequency of inspection shall be sufficient to ensure compliance.

(2) The owner or operator of a ~~f~~Facility using ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants or ~~m~~Mechanical ~~f~~Fume ~~s~~Suppressants shall comply with the applicable inspection and maintenance requirements in Table 4-4 of Appendix 4.

(3) Beginning January 31, 2019, the owner or operator of a ~~f~~Facility operating a Tier II Hexavalent Chromium Tank that is not controlled by an ~~a~~Add-on ~~a~~Air ~~p~~Pollution

~~c~~Control ~~d~~Device shall comply with the applicable inspection and maintenance requirements in Table 4-3 of Appendix 4.

(4) Beginning January 31, 2019, the owner or operator of a ~~f~~Facility operating a Tier I, Tier II, and Tier III Hexavalent Chromium Tank shall comply with the applicable inspection and maintenance requirements in Table 4-2 of Appendix 4.

(5) *Operation and Maintenance Plan*

The owner or operator of a ~~f~~Facility subject to the inspection and maintenance requirements of paragraphs (n)(1), (n)(2), (n)(3), or (n)(4) shall ~~prepare~~maintain an operation and maintenance plan. For M~~m~~ajor S~~s~~ources, the plan shall be incorporated by reference into the S~~s~~ource's Title V permit. The plan shall incorporate the inspection and maintenance requirements for that device or monitoring equipment, as identified in Tables 4-1, 4-2, 4-3, and 4-4 of Appendix 4, and shall include the following elements:

(A) A standardized checklist to document the operation and maintenance of the S~~s~~ource, the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device, and the process and control system monitoring equipment; and

(B) Procedures to be followed to ensure that equipment is properly maintained.

(6) Notwithstanding the operation and maintenance plan required by paragraph (n)(5), the owner or operator of a ~~f~~Facility 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 subdivision.

(7) *Operation and Maintenance Plan Availability*

The owner or operator of a ~~f~~Facility shall keep the written operation and maintenance plan on record after it is developed, to be made available for inspection, upon request.

(8) *Operation and Maintenance Plan Modifications*

Any changes made by the owner or operator of a ~~f~~Facility shall be ~~documented in an addendum~~incorporated into ~~the~~ a revised operation and maintenance plan. In addition, the owner or operator of a ~~f~~Facility shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, for a period of 5 years after each revision to the plan.

~~(9) *Amended Operation and Maintenance Plan*~~

~~No later than January 31, 2019, the facility's operation and maintenance plan shall be revised and made available upon request to the Executive Officer to reflect the incorporation of the inspection and maintenance requirements for a device or~~

~~monitoring equipment that is identified in Table 4-2 and Table 4-3 of Appendix 4 and shall include the elements required in subparagraphs (n)(5)(A) and (n)(5)(B).~~

(~~10~~ 9) *Replacement of Ampere-Hour Meter*

Prior to replacement of a continuous recording non-resettable ~~a~~Ampere-hour meter that is required under paragraph (d)(1), the owner or operator of a ~~f~~Facility shall photograph the actual ~~a~~Ampere-hour reading of:

(A) The ~~a~~Ampere-hour meter being replaced; and

(B) The new ~~a~~Ampere-hour meter immediately after installation.

(o) *Recordkeeping*

(1) *Inspection Records for Sources Using an Add-on Air Pollution Control Device or Non-Ventilated Air Pollution Control Device*

The owner or operator of a ~~f~~Facility shall maintain inspection records to document that the inspection and maintenance requirements of subdivision (n)~~.~~, and that the provisions of the operation and maintenance plan required by subdivision (n) have been met. The record can take the form of a checklist and shall identify:

(A) The device inspected;

(B) The date and time of inspection;

(C) A brief description of the working condition of the device during the inspection;

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

(E) Any actions taken to correct deficiencies found during the inspection.

(2) *Inspection Records for Sources Using Chemical or Mechanical Fume Suppressants*

The owner or operator of a ~~f~~Facility shall maintain inspection records to document that the applicable inspection and maintenance requirements of paragraphs (n)(1), (n)(2), (n)(3), and (n)(4) have been met. The record can take the form of a checklist.

(3) *Source Test, Capture Efficiency, and Smoke Test Records*

The owner or operator of a ~~f~~Facility shall maintain the conditions and results of all source tests, capture efficiency tests, emissions screening test, and smoke tests required by subdivision (k). The records shall include source test results required to determine compliance with paragraph (m)(1), including the pressure drop established during the source test to demonstrate compliance with the applicable E~~e~~mission L~~l~~imitation.

(4) *Monitoring Data Records*

The owner or operator of a ~~f~~Facility shall maintain records of continuously recorded ~~a~~Ampere-hour data required by paragraph (d)(1) and monitoring data required by subdivision (m).

(A) *Cumulative Rectifier Usage Records*

The owner or operator of a ~~f~~Facility shall, on a monthly basis, record the actual cumulative rectifier usage expended during each month of the reporting period, and the total usage expended to date.

(B) *Pressure and Air Flow Measurements*

The owner or operator of a ~~f~~Facility shall record the applicable pressures and air flow as specified in Table 4: Pressure and Air Flow Measurement Parameters of subdivision (m) once a week.

(5) *Surface Tension Records*

(A) The owner or operator of a ~~f~~Facility shall record the ~~s~~Surface ~~t~~Tension pursuant to the requirements of paragraph (m)(2).

(B) For ~~f~~Facilities operating under an approved alternative compliance method pursuant to subdivision (i), and using ~~c~~Chemical ~~f~~Fume ~~s~~Suppressants as all or partial control of ~~h~~Hexavalent ~~c~~Chromium emissions, the owner or operator of the ~~f~~Facility shall record the ~~s~~Surface ~~t~~Tension of the ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath daily.

(6) *Mechanical Fume Suppressant and Foam Blankets Records*

(A) The owner or operator of a ~~f~~Facility that is required to measure the ~~f~~Foam ~~b~~Blanket thickness pursuant to paragraph (m)(3), shall record the foam thickness.

(B) The owner or operator of a ~~f~~Facility using polyballs or other ~~m~~Mechanical ~~f~~Fume ~~s~~Suppressants to comply with the emission standards of subdivision (h)~~, or~~ (i), (w), or (x), shall record the coverage of the ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath daily. Coverage shall be reported as a percentage of bath surface area.

(7) *Records of Excesses*

The owner or operator of a ~~f~~Facility shall maintain records of exceedances of: ~~the~~ ~~e~~Emission ~~l~~Limitations in subdivisions (h), ~~and~~ (i), (w), and (x), the parameter monitoring values established under subdivision (m), or any site-specific operating parameters established for alternative equipment. ~~The~~ The records shall include the date

of the occurrence, the duration, cause (if known), and, where possible, the magnitude of any excess emissions.

(8) *Housekeeping and Best Management Practice Records*

The owner or operator of a ~~f~~Facility shall maintain records demonstrating compliance with housekeeping practices and best management practices, as required by subdivisions (f) and (g), 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~~f~~ugitive E~~e~~missions.

(9) *Records of Fume Suppressant Additions*

For S~~s~~ources using fume suppressants to comply with the standards, the owner or operator of a ~~f~~Facility shall maintain records of the date, time, approximate volume, and product identification of the fume suppressants that are added to the ~~e~~Electroplating or ~~a~~Anodizing ~~b~~Bath.

(10) *Records of Trivalent Bath Components*

For S~~s~~ources complying with paragraph (h)(3) using ~~t~~Trivalent ~~e~~Chromium baths, the owner or operator of a ~~f~~Facility shall maintain records of the B~~b~~ath C~~e~~omponents purchased, with the ~~w~~Wetting ~~a~~Agent clearly identified as a bath constituent contained in one of the components.

(11) *Records of Filter Purchase and Disposal*

For S~~s~~ources using ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~e~~Control ~~d~~Devices to comply with the standards, the owner or operator of a ~~f~~Facility shall retain purchase orders for filters and waste manifest records for filter disposal.

(12) *Records for Rinse Tanks*

The owner or operator of a Facility that uses Hexavalent Chromium for Chromium Electroplating or Chromic Acid Anodizing shall maintain a record of a laboratory analysis conducted every 12 calendar months for the first Rinse Tank following a Tier I, a Tier II, or a Tier III Hexavalent Chromium Tank demonstrating that the tank solution contains less than the applicable minimum concentration of Hexavalent Chromium to meet the definition of a Tier I, Tier II, or Tier III Hexavalent Chromium Tank using an approved ASTM, CARB, or U.S. EPA test method, where total chromium may serve as a surrogate for Hexavalent Chromium, unless:

(A) South Coast AQMD permit conditions limits the Rinse Tank solution concentration to less than the applicable minimum concentration of Hexavalent Chromium to meet the definition of a Tier I, Tier II, or Tier III Hexavalent Chromium Tank and requires a method to verify the concentration;

(B) The Rinse Tank is part of a rinsing operation that is designed to be continuously diluted with water;

(C) The Rinse Tank is permanently connected to a system to remove Hexavalent Chromium;

(D) The tank solution is replaced at least once every 12 calendar months with water and the corresponding records are retained on-site; or

(E) The Rinse Tank is required to meet the applicable requirements of a Tier III Hexavalent Chromium Tank.

(~~12~~ *Records Retention*

13)

All records shall be maintained for five years, with the following kept ~~at least two years~~ on site:~~.~~

(A) Last two years of records; and

(B) Most recent source test for each equipment required to demonstrate compliance with an emission limit even if more than five years old.

(p) *Reporting to Meet the Requirements of Rule 1469*

(1) *Source Test Documentation*

(A) Notification of Source Test

At least ~~60~~ 14 calendar days before the source test is scheduled to occur, the owner or operator of a ~~f~~Facility shall notify the Executive Officer at sourcetesting@aqmd.gov that a source test will be conducted.

(B) *Reports of Source Test Results*

The owner or operator of a F~~f~~acility shall report source test results to the Executive Officer. Reports of source test results shall be submitted no later than 90 calendar days following the completion of the required source test, and shall be submitted as part of the ~~notification of~~ Ongoing ~~c~~Compliance and Emission ~~s~~Status Reports required by paragraph~~s~~ (p)(2) and (p)(3).

(C) The source test reports shall contain, at a minimum, the information identified in Appendix 1.

(2) Initial Compliance Status Report

An ~~i~~Initial ~~c~~Compliance ~~s~~Status ~~r~~Report is required each time that a Ssource becomes subject to the requirements of this rule. The owner or operator of a F~~f~~acility shall submit to the Executive Officer an ~~i~~Initial ~~c~~Compliance ~~s~~Status ~~r~~Report, signed by the R~~r~~esponsible O~~o~~fficial who shall certify its accuracy, attesting to whether the S~~s~~ource has complied with this rule.

(A) Initial Compliance Status Report Due Date

The ~~i~~Initial ~~c~~Compliance ~~s~~Status ~~r~~Report for ~~e~~Existing ~~f~~Facilities shall be submitted to the Executive Officer no later than April 24, 2008. ~~New~~ Recent or ~~m~~Modified ~~f~~Facilities shall submit the ~~i~~Initial ~~c~~Compliance ~~s~~Status ~~r~~Report upon start-up.

(B) The ~~i~~Initial ~~c~~Compliance ~~s~~Status ~~r~~Report shall contain, at a minimum, the information identified in Appendix 2.

(3) *Ongoing Compliance Status and Emission Reports*

The owner or operator of a ~~f~~Facility shall submit a summary report to the Executive Officer to document the ongoing compliance status.

(A) Frequency of Ongoing Compliance Status and Emission Reports

The report shall be submitted each calendar year on or before February 1 for all S~~s~~ources and shall include information covering the preceding calendar year (January 1 through December 31).

(B) The ~~o~~Ongoing ~~c~~Compliance ~~s~~Status and ~~e~~Emission ~~r~~Reports shall, at a minimum, contain the information identified in Appendix 3.

(4) *Notification of Incident*

(A) The owner or operator of a ~~f~~Facility shall notify the Executive Officer within four hours of the incident or within four hours from the time the owner or operator of a ~~f~~Facility knew or reasonably should have known of, any failed smoke test, any failed source test, any exceedance of a permitted ~~a~~Ampere-hour limit, or any malfunction of a non-resettable ~~a~~Ampere-hour meter by calling 1-800-CUT SMOG. In ~~the~~ cases of emergencies that prevent the owner or operator of a ~~f~~Facility from reporting all required information within the four hour limit, the Executive Officer may extend the time for reporting the required information provided such owner or operator of a ~~f~~Facility has notified the Executive Officer of the incident within 24-hours. The notification shall include the following information:

(i) Date and time of the incident and when it was discovered;

(ii) Specific location and equipment involved;

(iii) Responsible party to contact for further information;

(iv) Causes of the incident, to the extent known; and

(v) Estimated time for repairs and correction.

(B) Within seven calendar days after a reported incident has been corrected, but no later than thirty calendar days from the initial date of the incident, unless an extension has been approved in writing by the Executive Officer, the owner or operator of a ~~f~~Facility shall submit a written incident report to the Executive Officer that includes:

(i) An identification of the equipment involved in causing, or suspected of having caused, or having been affected by the incident;

(ii) The duration of the incident;

(iii) The date of correction and information demonstrating that compliance is achieved;

(iv) An identification of the types of emissions, if any, resulting from the incident;

(v) A quantification of the excess emissions, if any, resulting from the incident and the basis used to quantify the emissions;

(vi) Information substantiating that steps were immediately taken to correct the condition causing the incident, and to minimize the emissions, if any, resulting from the incident;

(vii) Written verification that the F~~f~~acility is operating in compliance with this rule. If the F~~f~~acility is not in compliance with this rule, provide an approximate date the F~~f~~acility is expected to be in compliance;

(viii) A description of the corrective measures undertaken and/or to be undertaken to avoid such an incident in the future; and

(ix) Pictures of the equipment that failed, if available.

(5) *Reports Associated with Trivalent Chromium Baths Exclusively Using a Chemical Fume Suppressant Containing a Wetting Agent*

Owners or operators switching to ~~t~~Trivalent ~~c~~Chromium baths exclusively using a ~~c~~Chemical ~~f~~Fume ~~s~~Suppressant containing a ~~w~~Wetting ~~a~~Agent to comply with ~~sub~~paragraph (h)(3)~~(A)~~ are not subject to paragraphs (p)(1) through (p)(3), but shall instead submit a report within 30 days of a change to the ~~t~~Trivalent ~~c~~Chromium E~~e~~lectroplating process that includes:

(A) The name and address of the Facility, a statement that the Trivalent Chromium Process incorporates a Wetting Agent, the list of Bath Components, including

the trade or brand names, for the solution with the Wetting Agent clearly identified, and ~~A~~ description of the manner in which the process has been changed and the ~~e~~Emission ~~l~~Limitation, if any, now applicable to the S~~s~~ource; and

(B) The notification and reporting requirements of paragraphs (p)(1), (p)(2), and (p)(3), if the ~~f~~Facility complies with the E~~e~~mission L~~l~~imitation option, or paragraph (p)(5), if the S~~s~~ource uses a ~~w~~Wetting ~~a~~Agent to comply. ~~-~~The report shall be submitted in accordance with the schedules identified in those paragraphs.

(6) *Adjustments to the Timeline for Submittal and Format of Reports*

The Executive Officer 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. Adjustments shall provide the same information and shall not alter the overall frequency of reporting.

(q) *Procedure for Establishing Alternative Requirements*

(1) *Request Approval of an Alternative Requirement*

Any person may request approval of an alternative requirement. The person seeking such approval shall submit the proposed alternative requirement to the Executive Officer for approval. The request shall include the proposed alternative requirement, the reason for requesting the alternative requirement, and information demonstrating that the criteria for approval identified in Appendix 6 is met.

(2) *Approval of an Alternative Requirement*

The Executive Officer may approve an alternative requirement if it determines that application of the alternative requirement meets the criteria for approval identified in Appendix 6 and the Executive Officer has submitted the proposed alternative requirements and has received concurrence from the applicable concurring agencies identified in Appendix 6.

(3) *Approval Criteria*

Nothing in this subdivision prohibits the Executive Officer from establishing approval criteria more stringent than that required in Appendix 6.

(4) *Alternatives Already Approved by U.S. EPA*

Waivers for alternatives already approved by the U.S. EPA prior to October 24, 2007 shall remain in effect until the effective dates of the specified requirements become effective.

(r) *Exemptions*

(1) The requirements of subdivisions (m) and (n) do not apply to ~~decorative chromium electroplating tanks using a trivalent chromium bath~~tanks using Trivalent Chromium Process with a W~~w~~etting A~~a~~gent.

(2) The requirements of paragraphs (f)(6), (g)(4), and (g)(5) do not apply to buffing, grinding, or polishing operations conducted under a continuous flood of M~~m~~etal R~~r~~emoval F~~f~~luid.

(3) A temporary opening, persisting no more than seven consecutive calendar days, in a wall or roof of a Building Enclosure created to install an air pollution control device shall be:

(A) Excluded from the combined area of all Enclosure Openings referenced in paragraph (e)(1); and

(B) Exempt from paragraph (e)(4), provided the opening is covered when construction is not active and upon the end of each construction work day.

(4) Beginning January 1, 2026, the requirements of paragraphs (h)(2) and (h)(4) do not apply to a Tier III Hexavalent Chromium Tank subject to the requirements of subdivision (w) or (x).

(5) The requirements of paragraph (h)(5) do not apply to a Functional Chrome Plating Facility subject to the requirements of paragraph (x)(3).

(6) The requirements of paragraph (k)(1) do not apply to a Tier III Hexavalent Chromium Tank subject to the requirements of paragraphs (k)(2), (k)(3), or (k)(4).

(7) The requirements of paragraphs (f)(1) through (f)(4), (f)(7), (f)(10), and subparagraph (f)(5)(C) do not apply to a Facility with tank(s) using Trivalent Chromium Process, provided no Tier I, Tier II, or Tier III Hexavalent Chromium Tanks are operated or permitted at the Facility.

(s) *Rule 1402 Inventory Requirements*

The owner or operator of a F~~f~~acility that is in compliance with this rule will not be required to submit an emission inventory to the Executive Officer for emissions of toxic compounds subject to this rule, pursuant to paragraph (p)(1) of Rule 1402 - Control of Toxic Air Contaminants from Existing Sources.

(t) *Conditional Requirements for Permanent Total Enclosure*

(1) The owner or operator of a ~~f~~Facility shall install a Permanent Total Enclosure that does not exceed 3.5% for all ~~e~~Enclosure ~~o~~Openings, as specified in paragraph (e)(1) for a Tier III ~~h~~Hexavalent ~~c~~Chromium ~~t~~Tank:

(A) That results in more than one non-passing source test as required in paragraph (k)(1), (k)(2), or (k)(3) occurring within a consecutive 48-month period; or

(B) That is not immediately shut down pursuant to clause (m)(1)(C)(iii), subparagraph (m)(1)(D) or subparagraph (m)(1)(F):

(i) More than once within a consecutive 48-month period for a ~~f~~Facility that is located more than 1,000 feet from a ~~s~~Sensitive ~~r~~Receptor; or

(ii) Once for a ~~f~~Facility that is located less than or equal to 1,000 feet from a ~~s~~Sensitive ~~r~~Receptor.

(2) Within 30 days of the date of notification by the Executive Officer that a Permanent Total Enclosure is required, the owner or operator of ~~f~~Facility may submit a written report to the Executive Officer providing evidence that the installation of a Permanent Total Enclosure is not warranted based on the following criteria:

(A) The incidents of non-compliance specified in paragraph (t)(1) did not occur; or

(B) The owner or operator of a ~~f~~Facility resolved the incidents of non-compliance specified in paragraph (t)(1) in a timely manner; and

(C) The owner or operator of a ~~f~~Facility implemented specific measures to minimize ~~h~~Hexavalent ~~c~~Chromium emissions.

(3) The Executive Officer shall use the information provided by the owner or operator of a ~~f~~Facility to determine if a ~~p~~Permanent ~~t~~Total ~~e~~Enclosure is required and will notify the owner or operator of a ~~f~~Facility within 90 days of receiving the written report.

(4) The owner or operator of a ~~f~~Facility required to install a ~~p~~Permanent ~~t~~Total ~~e~~Enclosure pursuant to subdivision (t) shall vent the ~~p~~Permanent ~~t~~Total ~~e~~Enclosure to an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective; and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety.

(5) The owner or operator of a ~~f~~Facility required to install a ~~p~~Permanent ~~t~~Total ~~e~~Enclosure pursuant to subdivision (t) shall install the ~~p~~Permanent ~~t~~Total ~~e~~Enclosure no later than 12 months after the South Coast AQMD Permit to Construct is issued

by the Executive Officer. The owner or operator of a ~~f~~Facility shall submit complete South Coast AQMD permit applications for the ~~p~~Permanent ~~t~~Total ~~e~~Enclosure to the Executive Officer no later than:

(A) 180 days after notification by the Executive Officer if the property line of the F~~f~~acility is within 500 feet of the property line of any ~~s~~Sensitive ~~r~~Receptor.

(B) 270 days after notification by the Executive Officer for all other ~~f~~Facilities.

(u) Hexavalent Chromium Phase-Out Plan

(1) The owner or operator of a ~~f~~Facility shall not be subject to the requirements of paragraph (h)(4) to vent a Tier III Hexavalent Chromium Tank, existing on or before November 2, 2018, to an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device, if the owner or operator of a ~~f~~Facility submits a Hexavalent Chromium Phase-Out Plan to the Executive Officer for review and approval no later than January 31, 2019 containing the following:

(A) A commitment that the ~~f~~Facility will permanently eliminate or reduce ~~h~~Hexavalent ~~c~~Chromium concentrations within the subject tank to below the concentration of the definition of a Tier II or Tier III Hexavalent Chromium Tank;

(B) A description of the method by which ~~h~~Hexavalent ~~c~~Chromium concentrations will be permanently eliminated or reduced from the subject tank(s) and the date of final completion, not to exceed two years from approval of the Hexavalent Chromium Phase-Out Plan;

(C) A list of milestones, including any testing required to meet specifications or quality assurance requirements, to allow the ~~f~~Facility to reduce or eliminate ~~h~~Hexavalent ~~c~~Chromium by the completion date;

(D) Completion date for each of the milestones listed in subparagraph (u)(1)(C); and

(E) A list of all control measures that will be implemented for the subject tank(s), including dates of implementation, until the ~~h~~Hexavalent ~~c~~Chromium concentration is eliminated or reduced as stated.

(2) The Hexavalent Chromium Phase-Out Plan shall be subject to the fees specified in Rule 306.

(3) The Executive Officer shall notify the owner or operator of a ~~f~~Facility in writing whether the Hexavalent Chromium Phase-Out Plan is approved or disapproved. Determination of approval status shall be based on, at a minimum, submittal of

information that satisfies the criteria set forth in paragraph (u)(1). If the Hexavalent Chromium Phase-Out Plan is disapproved, the owner or operator of a ~~f~~Facility shall resubmit the plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the Hexavalent Chromium Phase-Out Plan. The resubmitted Hexavalent Chromium Phase-Out Plan shall include any information necessary to address deficiencies identified in the disapproval letter.

(4) Upon approval of the Hexavalent Chromium Phase-Out Plan, the owner or operator of a ~~f~~Facility shall implement the approved plan and shall submit a progress report to the Executive Officer by the first day of every calendar quarter indicating the increments of progress for the previous quarter, or submit according to an alternative schedule as specified in the approved plan.

(5) The Executive Officer shall notify the owner or operator of a ~~f~~Facility to submit complete South Coast AQMD permit applications for an ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device to comply with subdivision (h) if:

(A) The owner or operator does not eliminate or reduce ~~h~~Hexavalent ~~c~~Chromium by the final completion date in the approved Hexavalent Chromium Phase-Out Plan;

(B) The Executive Officer denies a resubmitted Hexavalent Chromium Phase-Out Plan; or

(C) The owner or operator fails to resubmit a Hexavalent Chromium Phase-Out Plan as required under paragraph (u)(3).

(6) The owner or operator shall install the ~~a~~Add-on ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device specified in the permit application submitted pursuant to paragraph (u)(5) no later than 180 days after a South Coast AQMD Permit to Construct has been issued.

(v) *Phase Out of Hexavalent Chromium Use for Chromium Electroplating and Chromic Acid Anodizing Operations*

(1) *New Hexavalent Chromium Facilities Prohibited*

An owner or operator of a Facility shall not construct nor operate a tank that uses Hexavalent Chromium for the purposes of Decorative Chromium Electroplating, Hard Chromium Electroplating, or Chromic Acid Anodizing, unless the Facility has a Chromium Electroplating or Chromic Acid Anodizing Tank using Hexavalent Chromium permitted on or before January 1, 2024.

(2) *Phase Out of Hexavalent Chromium Use for Decorative Chromium Electroplating Operations*

(A) *Default Phase-out Date*

Beginning January 2, 2030, an owner or operator of a Facility shall not use any Hexavalent Chromium for the purposes of Decorative Chromium Electroplating.

(B) *Alternate Phase-out Date for Facilities issued a Permit to Construct After January 1, 2029 for the Alternate Equipment*

In lieu of meeting the requirements of paragraph (v)(2)(A), an owner or operator of a Facility issued a Permit to Construct after January 1, 2029 for the non-Hexavalent Chromium alternative equipment that elects to have an alternative phase out date shall not use any Hexavalent Chromium for the purposes of Decorative Chromium Electroplating beginning the expiration date of the Permit to Construct for the non-Hexavalent Chromium equipment alternative, issuance date of the Permit to Operate for the non-Hexavalent Chromium equipment alternative, or January 2, 2031, whichever is the earliest, provided:

(i) No later than [6 Months after Date of Rule Adoption], the owner or operator submitted a complete permit application for the non-Hexavalent Chromium alternative equipment; and

(ii) No later than October 31, 2029, the owner or operator informs the South Coast AQMD staff processing the application for the non-Hexavalent Chromium alternative equipment that the facility will continue to operate the Decorative Chromium Electroplating equipment after January 1, 2030.

(C) *Alternate Phase-out Date for Facilities issued an Extended Permit to Construct for the Alternate Equipment*

In lieu of meeting the requirements of subparagraph (v)(2)(A), an owner or operator of Facility issued a Permit to Construct for the non-Hexavalent Chromium alternative equipment that elects to have an alternative phase out date shall not use any Hexavalent Chromium for the purposes of Decorative Chromium Electroplating beginning the expiration date of the extended Permit to Construct for the non-Hexavalent Chromium alternative equipment, issuance date of the Permit to Operate for the non-Hexavalent Chromium equipment alternative, or January 2, 2031, whichever is the earliest, provided:

(i) The requirements specified in clauses (v)(2)(B)(i) and (v)(2)(B)(ii) are met; and

(ii) An extension to the Permit to Construct for the non-Hexavalent Chromium alternative equipment was granted for one or more of the following reasons:

(I) The procurement of equipment necessary to replace Hexavalent Chromium is delayed;

(II) The installation of equipment necessary to replace Hexavalent Chromium is delayed; or

(III) More time is needed to complete construction of the non-Hexavalent Chromium alternative equipment.

(3) *Phase Out of Hexavalent Chromium Use for Functional Chrome Operations*

(A) Beginning January 2, 2039 or the date specified in the Air Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations (California Code of Regulations Section 93102.4) prohibiting the use of any Hexavalent Chromium for the purposes of Functional Chrome Plating, whichever is later, an owner or operator of a Facility shall not use any Hexavalent Chromium for the purposes of Functional Chrome Plating.

(B) An owner or operator of a Facility shall not be subject to the requirements of subparagraph (v)(3)(A), if no date is specified in the Air Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations prohibiting the use of any Hexavalent Chromium for the purposes of Functional Chrome Plating.

(w) *Requirements for Facilities Undergoing Modifications*

(1) *Permitted Annual Ampere-Hours*

The owner or operator of a Chromium Electroplating or Chromic Acid Anodizing Tank using Hexavalent Chromium shall not perform a Modification to the Facility on or after January 1, 2024, unless:

(A) The Facility's total permitted Ampere-hours for the Chromium Electroplating and Chromic Acid Anodizing Tanks using Hexavalent Chromium after the Modification does not exceed the total permitted Ampere-hours for the Chromium Electroplating and Chromic Acid Anodizing Tanks using Hexavalent Chromium prior to Modification; and

(B) All Tier I, II, and III Hexavalent Chromium Tanks that undergo a Modification at the Facility comply with all applicable requirements of this rule.

(2) *Emission Limitations for Hexavalent Decorative Chromium Electroplating and Hard Chromium Electroplating and Chromic Acid Anodizing Tanks*

An owner or operator of a Facility that underwent a Modification on or after January 1, 2024 shall control Hexavalent Chromium emissions from all Chromium Electroplating and Chromic Acid Anodizing tanks by:

(A) Venting Hexavalent Chromium emissions to an Add-on Air Pollution Control Device(s) or controlling emissions with an Add-on Non-ventilated Air Pollution Control Device; and

(B) Meeting an Emission Limitation of 0.00075 milligrams of Hexavalent Chromium per Ampere-hour or less as demonstrated by conducting a source test.

(x) *New Requirements for Tier III Hexavalent Chromium Tanks at Functional Chrome Plating Facilities Beginning January 1, 2026*

(1) *Tank Used for Functional Chrome Plating*

Beginning January 1, 2026, an owner or operator of a Functional Chrome Plating Facility shall control Hexavalent Chromium emissions from each Chromium Electroplating and Chromic Acid Anodizing Tank that uses Hexavalent Chromium for either Functional Chrome Plating or both Decorative Chrome Plating and Functional Chrome Plating by meeting the requirements of subparagraphs (w)(2)(A) and (w)(2)(B).

(2) Beginning January 1, 2026, owner or operator of a Functional Chrome Plating Facility shall control Hexavalent Chromium emissions from any Tier III Hexavalent Chromium Tank, excluding Chromium Electroplating and Chromic Acid Anodizing tanks subject to paragraph (x)(1), using an Add-on Air Pollution Control Device or Add-on Non-ventilated Add-on Air Pollution Control Device that meets the following applicable Hexavalent Chromium emission limits as demonstrated by source test:

(A) 0.00075 mg/amp-hr, if the Tier III Hexavalent Chromium Tank is connected to an Add-on Air Pollution Control Device that is also connected to a Functional Chrome Plating Tank;

(B) 0.20 mg/hr, if the Tier III Hexavalent Chromium Tank is either:

(i) Connected to an Add-on Air Pollution Control Device:

(I) With a maximum exhaust rate of 5,000 cubic feet per minute or less as described by either the permit to operate or per manufacturer's specifications submitted to the Executive Officer; and

(II) That is not connected to a Functional Chrome Plating Tank; or

(ii) Connected to an Add-on Non-ventilated Add-on Air Pollution Control Device; and

(C) 0.004 mg/hr-ft^2, with the applicable surface area based on the total surface area of all Tier II and Tier III Hexavalent Chromium Tanks connected to the same Add-on Air Pollution Control Device, for the Tier II and Tier III Hexavalent Chromium Tanks connected to an Add-on Air Pollution Control Device:

(i) With a maximum exhaust rate of greater than 5,000 cubic feet per minute as described by the permit to operate or per manufacturer's specifications submitted to the Executive Officer; and

(ii) That is not connected to a Functional Chrome Plating Tank.

(3) *Tier II Hexavalent Chromium Tanks at a Functional Chrome Plating Facility*
Beginning January 1, 2026, the owner or operator of a Functional Chrome Plating Facility shall control Hexavalent Chromium emissions from a Tier II Hexavalent Chromium Tank by:

(A) Utilizing a tank cover, Mechanical Fume Suppressant, or other method approved by the Executive Officer; or

(B) Meeting the requirements for a Tier III Hexavalent Chromium Tank specified in paragraph (x)(2).

(y) *Permit to Operate Subject to Emission Limits Requirements in Subdivision (x)*

(1) No later than March 1, 2026, an owner or operator of a Functional Chrome Plating Facility shall either:

(A) Have a permit to operate meeting the applicable emission limits in subdivision (x) for each Tier III Hexavalent Chromium Tank and the Add-On Air Pollution Control Device or an Add-On Non-ventilated Air Pollution Control Device controlling the Hexavalent Chromium emissions from a Tier III Hexavalent Chromium Tank; or

(B) Submit a complete permit application to meet the requirements specified in subparagraph (y)(1)(A).

Appendix 1 – Content of Source Test Reports.

Source test reports shall contain, at a minimum, 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 milligrams/~~a~~Ampere-hour;
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;
9. Applicable Industrial Ventilation Limits;
10. Collection slot velocities (if applicable);
11. Measured static, differential, or volumetric flow rate at the push manifold, collection manifold, across each stage of the control device, and exhaust stack (if applicable); and
12. Any other information required by the test method.

Appendix 2 – Content of Initial Compliance Status Reports.

Initial ~~c~~Compliance ~~s~~Status ~~r~~Reports shall contain, at a minimum, the following information:

1. Facility name, South Coast AQMD ID number, F~~f~~acility address, owner and operator name, and telephone number;
2. The distance of the F~~f~~acility to the property line of the nearest commercial/industrial building and S~~s~~ensitive R~~r~~eceptor using measurement methods provided in paragraph (h)(2);
3. Sensitive R~~r~~eceptor locations, if they are located within one-quarter of a mile from the center of the F~~f~~acility;
4. Building parameters
   - Stack height in feet (point sources); or
   - Building area in square feet (volume sources).
5. Maximum potential rectifier capacity per tank and F~~f~~acility maximum operating schedule (more than or less than or equal to 12 hours per day);
6. The applicable E~~e~~mission L~~l~~imitation and the methods that were used to determine compliance with this limitation;
7. Facility-wide emissions, if applicable;
8. If a source test is required, the test report documenting the results of the source test, which contains the elements listed in Appendix 1;
9. If an initial smoke test demonstrating the capture efficiency of the A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice or A~~a~~dd-on N~~n~~on-ventilated A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice is required, the test report documenting the results which contain the elements listed in Appendix 8;
10. The type and quantity, in pounds, of hazardous air pollutants emitted by the S~~s~~ource.;
11. For each monitored parameter for which a compliant value is to be established under subdivision (m), the specific O~~o~~perating P~~p~~arameter V~~v~~alue, or range of values, that corresponds to compliance with the applicable emission limit;
12. The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this section;
13. A description of the A~~a~~ir P~~p~~ollution C~~e~~ontrol T~~t~~echnique for each emission point;
14. A statement that the owner or operator of a F~~f~~acility has completed and has on file the operation and maintenance plan as required by subdivision (n);

15. The actual cumulative Aampere-hour usage expended during the preceding calendar year, if operation occurred;
16. Information on calculations for the Bbuilding Eenclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the applicable building envelope allowance;
17. A statement that the owner or operator of a Ffacility, or personnel designated by the owner or operator of a Ffacility, has completed a SCAQMD-approved training program pursuant to subdivision (j); and
18. A statement by the owner or operator of a Ffacility as to whether the Ssource has complied with the provisions of this section.

Appendix 3 – Content of Ongoing Compliance Status and Emission Reports.

Ongoing ~~e~~Compliance ~~s~~Status and ~~e~~Emission ~~r~~Reports shall, at a minimum, contain the following information:

1. The company name and address of the S~~s~~ource;
2. An identification of the operating parameter that is monitored for compliance determination, as required by subdivision (m);
3. The relevant E~~e~~mission L~~l~~imitation for the S~~s~~ource, and the O~~o~~perating P~~p~~arameter V~~v~~alue, or range of values, that correspond to compliance with this E~~e~~mission L~~l~~imitation ~~as~~ specified in the ~~notification of i~~Initial ~~e~~Compliance ~~s~~Status Report required by Appendix 2;
4. The beginning and ending dates of the calendar year for the reporting period;
5. A description of the type of process performed in the S~~s~~ource;
6. The actual cumulative rectifier usage expended during the calendar year of the reporting period, on a month-by-month basis, if the S~~s~~ource is a H~~h~~ard or D~~d~~ecorative C~~e~~hromium E~~e~~lectroplating T~~t~~ank or C~~e~~hromic A~~a~~cid A~~a~~nodizing T~~t~~ank;
7. Updated F~~f~~acility-wide emissions, if applicable;
8. Hexavalent C~~e~~hromium and T~~t~~rivalent C~~e~~hromium emissions data in grams per year for the reporting period;
9. Sensitive R~~r~~eceptor distances, if they are located within ¼ of mile from the center of the facility and facility maximum operating schedule (more than or less than or equal to 12 hours per day), if changed since submittal of the ~~i~~Initial ~~e~~Compliance ~~s~~Status ~~r~~Report or subsequent ~~o~~Ongoing ~~e~~Compliance ~~s~~Status and ~~e~~Emission ~~r~~Reports. Sensitive R~~r~~eceptor distances shall be measured using methods provided in paragraph (h)(2);
10. A summary of any excess emissions or exceeded monitoring parameters as identified in the records required by paragraph (o)(7);
11. A certification by a R~~r~~esponsible O~~o~~fficial that the inspection and maintenance requirements in subdivision (n) were followed in accordance with the operation and maintenance plan for the S~~s~~ource;
12. If the operation and maintenance plan required by subdivision (n) 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 paragraph (o)(1) documenting that the operation and maintenance plan was not followed;

13. If applicable, results of periodic smoke tests demonstrating capture efficiency of an Aadd-on Aair Ppollution Ccontrol Ddevice or Aadd-on Nnon-ventilated Aair Ppollution Ccontrol Ddevice conducted during the reporting period;
14. A description of any changes in monitoring, processes, or controls since the last reporting period;
15. A statement that the owner or operator of a Ffacility, or personnel designated by the owner or operator of a Ffacility has, within the last 2 years, completed a South Coast AQMD-approved training program pursuant to subdivision (j);
16. Add-on air pollution ventilation measurements conducted during the most recent successful South Coast AQMD approved source test that include:
    (A) The velocity of each collection slot, including the velocity values that would be 95% and 90% of the source-tested value.
    (B) For push-pull systems, the pressure of each push air manifold, including the pressure values that would be 110%, 105%, 95%, and 90% of the source-tested value;
17. A summary of any pollution prevention measures that the Ffacility has implemented that eliminates or reduces the use of Hhexavalent Cehromium in the Cehromium Eelectroplating or Cehromic Aacid Aanodizing process and Aassociated Ppprocess Ttanks.
18. Information on calculations for the Bbuilding Eenclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the applicable building envelope allowance.
19. The name, title, and signature of the Rresponsible Oofficial who is certifying the accuracy of the report; and
20. The date of the report.

Appendix 4 – Summary of Inspection and Maintenance Requirements

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Composite mesh-pad (CMP) system.	1. Visually inspect device to ensure that there is proper drainage, no unusual Cehromic Aacid buildup on the pads, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of Cehromic Aacid mist.	2. Once per quarter.
	3. Visually inspect ductwork from tank to the control device to ensure there are no Lleaks.	3. Once per quarter.
	4. Perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.	4. Per manufacturer.
Packed-Bbed Sscrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no unusual Cehromic Aacid buildup on the packed-beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of Cehromic Aacid mist.	2. Once per quarter.
	3. Same as number 3 above for CMP system.	3. Once per quarter.
	4. Add fresh makeup water to the packed-bed.[A]	4. Whenever makeup is added.

[A] Horizontal Ppacked-Bbed Sscrubbers without continuous recirculation must add make-up water to the top of the packed-bed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
PBS/CMP system	1. Same as for CMP system.	1. Once per quarter.
	2. Same as for CMP system.	2. Once per quarter.
	3. Same as for CMP system.	3. Once per quarter.
	4. Same as for CMP system	4. Per manufacturer.
Fiber-B~~b~~ed M~~m~~ist E~~e~~liminator[B]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no unusual C~~e~~hromic A~~a~~cid buildup in the units, and no evidence of chemical attack that affects the structural integrity of the devices.	1. Once per quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no L~~l~~eaks.	2. Once per quarter.
	3. Perform washdown of fiber elements in accordance with manufacturer's recommendations.	3. Per manufacturer.
High Efficiency Particulate Arrestors filter (HEPA)	1. Look for changes in the pressure drop.	1. Once per week.
	2. Replace HEPA filter.	2. Per manufacturer's specifications or South Coast AQMD's requirement.

[B] Inspection and maintenance requirements for the control device installed upstream of the F~~f~~iber-B~~b~~ed M~~m~~ist E~~e~~liminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Enclosed Hexavalent Chromium Tank ~~Covers~~	1. Drain the air-inlet (purge air) valves at the end of each day that the tank is in operation.	1. Once per day.
	2. Visually inspect access door seals and membranes for integrity.	2. Once per week.
	3. Drain the evacuation unit directly into the electroplating tank or into the R~~r~~inse T~~t~~anks (for recycle into the electroplating tank).	3. Once per week.
	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. Once per month.
	5. Visually inspect all clamps for proper operation; replace as needed.	5. Once per month.
	6. Clean or replace filters on evacuation unit.	6. Once per month.
	7. Visually inspect piping to, piping from, and body of evacuation unit to ensure there are no L~~l~~eaks and no evidence of chemical attack.	7. Once per quarter.
	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 F~~f~~resh W~~w~~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.	Once per quarter.
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.

Table 4-2:
Additional Inspection and Maintenance Requirements for Tier I, II, and III Hexavalent Chromium Tank(s)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Temperature Gauge	1. Install and maintain per manufacturer's specification at each Tier I, II, and III Hexavalent Chromium Tank, except Tier I Hexavalent Chromium Tank not equipped with heating element nor permitted to operate with a heating element	1. Per manufacturer.
	2. Calibrated or confirmed to be accurate.	2. Once per year.
Collection Slots and Push Air Manifolds for Push-Pull Systems	1. Visually inspect slots and push air manifolds to ensure that there are no obstructions or clogs.	1. Once per week.
	2. Clean slots or push air manifolds.	2. Once every 180 days.
	3. Measure slot velocity of each slot and pressure at each push air manifold using a hot-wire anemometer, vein anemometer, or approved device	3. Once every 180 days. Beginning [Date of Rule Adoption] for Functional Chrome Facility: Once every 365 days
Air Flow Gauges	Install and maintain per manufacturer's specifications.	Per manufacturer

Table 4-3
Summary of Inspection and Maintenance Requirements for Sources Not Using Add-on Air Pollution Control Devices to Control Tier II Hexavalent Chromium Tank(s)

Equipment	Inspection and Maintenance Requirement for Monitoring Equipment	Frequency
Temperature Data Logger	1. Install and maintain per manufacturer's specification at each Tier II Hexavalent Chromium Tank.	1. Per manufacturer.
	2. Calibrate ~~or confirm to be accurate~~per manufacturer.	2. Per manufacturer.

Table 4-4
Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants

Equipment	Inspection and Maintenance Requirement for Monitoring Equipment	Frequency
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Stalagmometer/ Tensiometer	Calibrate and maintain per manufacturer's specifications.	Per manufacturer.

Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device

SMOKE TEST TO VERIFY THE SEAL INTEGRITY OF COVERS DESIGNED TO REDUCE CHROMIUM EMISSIONS FROM TIER III HEXAVALENT CHROMIUM TANKS

1. Applicability and Principle

1.1 Applicability. This method ~~is applicable~~applies to all Tier III Hexavalent Chromium Tanks where a chromium tank cover of an Enclosed Hexavalent Chromium Tank or ~~a~~Add-on ~~n~~Non-ventilated ~~a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device is used on the tank for reducing chromium emissions.

1.2 Principle. During electrolytic operations, gas bubbles generated during the process rise to the surface of the tank liquid and burst. Non-electrolytic tanks that are either heated or air sparged generate bubbles that rise to the surface. Upon bursting, tiny droplets of Ce~~h~~romic A~~a~~cid (chromium mist) or H~~h~~exavalent Ce~~h~~romium laden liquid become entrained in the air above the tank. Because the chromium tank cover completely encloses the air above the tank, the chromium mist either falls back into the solution because of gravity or collects on the inside walls of the chromium tank cover and runs back into the solution. A semi-permeable membrane allows passage of the hydrogen and oxygen out of the chromium tank cover. A smoke device is placed inside the chromium tank cover to detect L~~l~~eaks at the membrane, joints, or seals.

2. Apparatus

2.1 Smoke device. Adequate to generate 500 to 1000 ft^3 of smoke/20 ft^2 of tank surface area.

2.2 Small container. To hold the smoke device.

3. Procedure

Place the small container on a stable and flat area at center of the chromium tank cover (you can use a board and place it on the buss bars). Place the smoke device inside the container. After activating the smoke device, quickly close the access door to avoid smoke from escaping. Let smoke device fill the entire space under the chromium tank cover with smoke. An acceptable smoke test shall demonstrate no L~~l~~eaks of smoke from each seal, joint, and membrane of the chromium tank cover. Record these observations including the locations and a qualitative assessment of any L~~l~~eaks of smoke.

When all seals, joints, and membranes have been observed, evacuate the unit to remove the smoke from the chromium tank cover.

Appendix 6 – Approval of Alternatives for Specific Requirements

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
(b)	Applicability	Assisting an owner or operator of a F~~f~~acility in determining whether a F~~f~~acility is subject to the rule	South Coast AQMD	
(h)	Standards	Approving alternative standards	South Coast AQMD	U.S. EPA
(k)(1)	Source Test Requirement	Waiving a source test requirement	South Coast AQMD	
(k)(1)	Use of Existing Source Tests	Approving the use of existing performance test results to demonstrate compliance, based on the "Description of the Technical Review Protocol for Performance Tests of California Chrome Plating Sources" (see Attachment 2 of the July 10, 1998 memorandum from John S. Seitz entitled, "Delegation of 40 CFR Part 63 General Provisions Authorities to State and Local Air Pollution Control Agencies.")	South Coast AQMD	
(k)(5~~2~~)	Test Method	Approving site-specific alternatives to test methods	South Coast AQMD for minor[1] or intemediate[2] changes	U.S. EPA for major[3] changes, and ARB
(k)(7~~4~~)	Pre-Test Protocol	Approving pre-test protocols	South Coast AQMD	
(k)(8~~5~~)	Test All Emission Points	Waiving the requirement to test all emission points	South Coast AQMD	
(m)	Parameter Monitoring	Approving site-specific changes in monitoring methodology	South Coast AQMD for minor[1] or intermediate[4] changes	U.S. EPA for major[3] changes
(n)	Inspection and Maintenance Requirements	Approving site-specific changes to inspection and maintenance requirements	South Coast AQMD	
(n)	Operation and Maintenance Plans	Approving or requiring site-specific changes to operation and maintenance plans	South Coast AQMD	

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
(o)(1)-(o)(12~~11~~)	Recordkeeping	Waiving or altering recordkeeping requirements	South Coast AQMD	U.S. EPA for major[3] changes
(o)(13~~12~~)	Retention of Records	Waiving or altering the requirement to retain records for 5 years	South Coast AQMD	U.S. EPA for major[3] changes
(p)	Reporting	Waiving or altering reporting requirements	South Coast AQMD	U.S. EPA[5] for major[3] changes

1 Minor change to a test method or monitoring is a modification to a federally enforceable test method or monitoring that (a) does not decrease the stringency of the Eemission Llimitation or standard or the compliance and enforcement measures for the relevant standard; (b) has no national significance (e.g., does not affect implementation of the applicable regulation for other affected Ssources, does not set a national precedent, and individually does not result in a revision to the test method or monitoring requirement); and (c) is site specific, made to reflect or accommodate the operation characteristics, physical constraints, or safety concerns of an affected Ssource.

2 Intermediate change to a test method is 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 Eemission Llimitation or standard. Intermediate changes are not approvable if they decrease the stringency of the standard.

3 Major change to a test method or monitoring is a modification to a federally enforceable test method or federally required monitoring that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).

4 Intermediate change to monitoring is 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 compliance and enforcement measures for the relevant standard.

5 U.S. EPA concurrence is not needed for adjustments made according to paragraph (p)(6).

Appendix 7 – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to Subdivision (i)

The owner or operator of a Ffacility applying for approval of an alternative method of compliance must submit to the Executive Officer the following information.

1. A source test as specified in subdivision (i) that is submitted after receipt of the South Coast AQMD Permit to Construct. The test shall have been conducted in a manner consistent with normal electroplating or anodizing operations.
2. A demonstration that the alternative method achieves an equal or greater amount of reductions in Hhexavalent Cehromium emissions than would be achieved with direct compliance with the applicable emission rate in paragraphs (h)(2) or (h)(4).
3. Calculations based on scientifically valid risk assessment methodologies demonstrating that the alternative method results in reducing risk equally or greater than the risk reduction that would be achieved by direct compliance with the applicable emission rate. A Ffacility using in-tank controls shall only be modeled as a volume source and the resulting risk shall be compared to the same Ffacility modeled as a point source.
4. Documentation which demonstrates that the method is enforceable, including an operation and maintenance plan, an inspection and maintenance schedule, and a recordkeeping plan.
5. A demonstration that the Ffacility is at least 75 feet from a Ssensitive Rreceptor.

Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(9~~6~~).

1. Applicability and Principle

1.1 Applicability. This method is applicable to all H~~h~~ard and D~~d~~ecorative C~~e~~hromium E~~e~~lectroplating and C~~e~~hromic A~~a~~cid A~~a~~nodizing operations where an A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice is used to reduce chromium emissions from the C~~e~~hromium E~~e~~lectroplating or A~~a~~nodizing T~~t~~ank.

1.2 Principle. During chromium electroplating or anodizing 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 C~~e~~hromic A~~a~~cid (chromium mist) become entrained in the air above the tank. Collection of this chromium mist is achieved with the A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice for the tank(s) where chromium emissions are reduced downstream. Emission control efficiency at the exhaust of an add-on control device is related to capture efficiency at the inlet of the A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice. For this reason, it is imperative that 100% capture efficiency is maintained. A smoke device placed within the area where collection of chromic mist by the A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice occurs reveals this capture efficiency.

2. Apparatus

2.1 Smoke Generator. Adequate to produce a persistent stream of visible smoke.

3. Testing Conditions

The smoke test shall be conducted while the A~~a~~dd-on A~~a~~ir P~~p~~ollution C~~e~~ontrol D~~d~~evice is in normal operation and under typical draft conditions representative of the F~~f~~acility's C~~e~~hromium E~~e~~lectroplating and/or C~~e~~hromic A~~a~~cid A~~a~~nodizing O~~o~~perations. This includes cooling fans and openings affecting draft conditions around the tank area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups. The smoke generator must be at full generation during the entire test and operated according to manufacturer's suggested use.

3. Procedure

The smoke test shall be conducted for each Chromium Electroplating or Chromic Acid Anodizing Tank vented to the Add-on Air Pollution Control Device at locations evenly distributed over the entire liquid surface over a minimum twelve point matrix or an alternative number of points approved by the Executive Officer in the most recently approved source test protocol. ~~evenly distributed over the entire liquid surface . of each chromium electroplating or chromic acid anodizing tank vented to the add-on air pollution control~~

~~device~~. Place the aperture of the smoke device at each point of the matrix at a height within one inch above the tank top. Observe collection of the smoke to the collection location(s) of the Aadd-on Aair Ppollution Ceontrol Ddevice. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the Aadd-on Aair Ppollution Ceontrol Ddevice without meanderings out of this direct path. Record these observations at each of the points on the matrix providing a qualitative assessment of the collection of smoke to the Aadd-on Aair Ppollution Ceontrol Ddevice. The test shall also be documented by photographs or video at each point of the matrix.

Appendix 9 – Surface Tension Measurement Procedure for a Stalagmometer

The Sstalagmometer shall 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 Sstalagmometer in stand in 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 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 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 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 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 Sstalagmometer twice with isopropyl alcohol and allow the stalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room temperature. Measure the specific gravity and record reading.
8. Fill a clean 150 mL beaker with solution to be tested. Immerse bottom end of Sstalagmometer into the beaker. Fill the Sstalagmometer per 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 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 number of drops until the level reaches the bottom etched line.

Calculations for Surface Tension

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

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

PRECAUTIONS:

1. Make sure the Sstalagmometer 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 Sstalagmometer 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 Sstalagmometer; or
    b) Use the number of drops recorded for the distilled water run as (Nw) in the equation instead of the number of drops etched on the Sstalagmometer.
7. Sample at room temperature.

Appendix 10 – Tier II and Tier III Hexavalent Chromium Tank Thresholds

1. -Tier II Hexavalent Chromium Tank's Hhexavalent Cechromium concentrations shall remain in the concentration range for the specified temperature and be required to comply with paragraph (h)(5). Tanks that exceed the Hhexavalent Cechromium concentration for a corresponding temperature for Tier II Hexavalent Chromium Tanks shall be considered a Tier III Hexavalent Chromium Tank and shall be required to comply with subparagraph (h)(4)(A) or paragraph (x)(2).

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

2. Electrolytic tanks, such as Cechromium Eelectroplating or Cechromic Aacid Aaanodizing Ttanks, with Hhexavalent Cechromium concentration greater than 1,000 ppm shall be considered a Tier III Hexavalent Chromium Ttank regardless of operating temperature.

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

4. The owner or operator of a Ffacility shall not be subject to the requirement of subparagraph (h)(4)(A) or paragraph (x)(2) to vent a Tier III Hexavalent Chromium Tank to an Aadd-on Aair Ppollution Ceontrol Ddevice for one tank at a Ffacility if the tank meets the following requirements:
   a) The surface area is less than or equal to four (4) square feet;
   b) The Hhexavalent Cechromium concentration is less than or equal to 11,000 ppm based on one or more of the following:;
      - Maximum operating concentration of Hexavalent Chromium specified in a permit condition
      - Laboratory analysis of the concentration of Hexavalent Chromium in the tank solution conducted within the last 12 months and using an approved ASTM, CARB, or U.S. EPA test method, where total chromium may serve as a surrogate for Hexavalent Chromium
   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; and
   e) The tank complies with the tank cover requirements in paragraph (h)(5) and the temperature data logger requirements in paragraph (n)(3), and the data logger must log the duration of time and temperature of the tank to demonstrate compliance with (d) above.

A Tier III Hexavalent Chromium Tank that fails to comply with any of the conditions listed in a through e shall be subject to subparagraph (h)(4)(A) or paragraph (x)(2).

Appendix 11 – Implementation Schedule

Requirement	Affected Tanks	Implementation Date
(d)(6)	Tier I Hexavalent Chromium Tank	Beginning January 1, 2023
(f)(10)	Tier I, Tier II, or Tier III Hexavalent Chromium Tank	Beginning January 1, 2023
(g)(1)	Chromium Eelectroplating or Cehromic Aacid Aanodizing ~~tank~~Tank	Beginning April 2, 2021 for (g)(1)(A)(i), (g)(1)(B)(i), (g)(1)(B)(ii)(I), and (g)(1)(C) Beginning [Date of Rule Adoption] for (g)(1)(A)(ii) and (g)(1)(B)(ii)(II)
	Tier I or Tier II Hexavalent Chromium Tank or Tier III Hexavalent Chromium Tank (except Cehromium Eelectroplating or Cehromic Aacid Aanodizing Ttanks)	Beginning January 1, 2023 for (g)(1)(A)(i), (g)(1)(B)(i), (g)(1)(B)(ii)(I), and (g)(1)(C) Beginning [Date of Rule Adoption] for (g)(1)(A)(ii) and (g)(1)(B)(ii)(II)
(g)(2)	Tier II or Tier III Hexavalent Chromium Tank	Beginning April 2, 2021
	Tier I Hexavalent Chromium Tank	Beginning January 1, 2023
(g)(5)	Chromium Eelectroplating or Cehromic Aacid Aanodizing Ttank	Beginning April 2, 2021
	Tier I or Tier II Hexavalent Chromium Tank or Tier III Hexavalent Chromium Tank (except Cehromium Eelectroplating or Cehromic Aacid Aanodizing Ttanks)	Beginning January 1, 2023

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

~~Draft~~ Final Staff Report
Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

~~November~~ December 2025

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EXECUTIVE SUMMARY

South Coast Air Quality Management District (South Coast AQMD) Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations (Rule 1469) was adopted in October 1998 and addresses hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. It was last amended in 2021.

In December of 2023, the California Air Resources Board (CARB) amended the Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations (Chrome ATCM). The amended Chrome ATCM includes phase out dates for the use of hexavalent chromium for decorative chromium electroplating as early as 2027, hard chromium electroplating and chromic acid anodizing by 2039 dependent on the findings from two pending technology reviews. The Chrome ATCM prohibits new hexavalent chromium electroplating or chromic acid anodizing facilities and includes many Rule 1469 requirements such as conducting operations within building enclosures and best management practices to control hexavalent chromium emissions from this industry. Finally, facilities that undergo modifications to an electroplating tank using hexavalent chromium or a chromic acid anodizing tank will be required to meet new requirements, including the more stringent emission limits.

Proposed Amended Rule 1469 (PAR 1469) will incorporate the more stringent requirements in the Chrome ATCM while retaining the existing requirements in Rule 1469 in place to prevent backsliding on control of hexavalent chromium emissions. In addition, PAR 1469 also includes clarifications for existing requirements, changes to source test protocol submittal deadlines, a new best management practice, and procedures that assist in implementation.

This Staff Report is organized into four chapters. Chapter 1 provides background information on PAR 1469 and the general description of the different types of operations conducted by affected facilities as well as the regulatory history for this industry. Chapter 2 provides a summary and explanation of amended provisions. Chapter 3 provides a summary of the impact assessments of PAR 1469 and comparative analysis. Chapter 4 provides the comments received from just before and after the public workshop and staff responses to the comments received. Appendix A includes the list of affected facilities. Appendix B includes public comments received and staff responses to comments.

CHAPTER 1 – BACKGROUND

INTRODUCTION

Adopted in October 1998, Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations (Rule 1469) addresses hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. The rule was last amended in April 2021 to align Rule 1469 with amendments to Rule 1426 – Emissions from Metal Finishing Operations for consistency and to avoid duplicate requirements. The amendments adopted in November 2018 include significant requirements to address uncontrolled sources of hexavalent chromium identified by community investigations in the cities of Newport Beach and Paramount. These requirements included control equipment, building enclosure, enhanced best management practices and routine housekeeping.

In 2023, the California Air Resources Board (CARB) amended the Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations (Chrome ATCM). The Chrome ATCM requires the phase out of hexavalent chromium use for decorative chrome operations as early as January 1, 2027, but no later than January 1, 2030, for facilities meeting building enclosure requirements. The Chrome ATCM requires the phase out of use of hexavalent chromium for functional chrome operations (i.e., hard chrome plating and chromic acid anodizing) by January 1, 2039, dependent on the findings from two pending technology reviews to be conducted by CARB and released January 1, 2032 and January 2036 to determine the feasibility of viable alternatives to hexavalent chromium. The Chrome ATCM also prohibits new hexavalent chromium electroplating or chromic acid anodizing facilities and included many of Rule 1469 requirements such as conducting operations within building enclosures and best management practices to control hexavalent chromium emissions from this industry. Facilities that undergo modifications to an electroplating tank using hexavalent chromium or a chromic acid anodizing tank will be required to meet new requirements, including the more stringent emission limits, for all electroplating tanks using hexavalent chromium and chromic acid anodizing tanks at the facility.

Health and Safety Code Section 39666(d) mandates the South Coast Air Quality Management District (South Coast AQMD) to implement and enforce ATCMs or enforce equally effective or more stringent rules than ATCMs adopted by CARB. Proposed Amended Rule 1469 (PAR 1469) is being amended to incorporate the more stringent requirements of the Chrome ATCM.

In addition to incorporation of Chrome ATCM requirements, PAR 1469 also includes clarifications of existing requirements, changes to source test document submittal deadlines, and a new best management practice.

INDUSTRY CHARACTERIZATION

Metal finishing is the surface treatment of a metal substrate to give it a desired characteristic. This can include anti-corrosion, durability, and adhesion. Due to the beneficial properties that can be imparted to products, metal finishing supports many industries including fixtures (home, kitchen, and bath), machinery and industrial equipment, and commercial and military aerospace. Facilities subject to Rule 1469 include those using electrolytic chromium tanks for primarily aesthetic purposes (decorative chrome plating), as well as hard chrome and chromic acid anodizing for functional purposes (functional chrome plating).

DECORATIVE CHROME PLATING

Decorative chromium electroplating involves depositing a thin layer of chromium (measured in millionths of an inch), which gives a decorative and protective finish. Examples of parts which are decorative chromium electroplated include furniture components, bathroom fixtures, and car bumpers and wheels. Electroplating duration is measured in seconds or minutes. Decorative chrome plating operations can use either hexavalent chromium or trivalent chromium and the tanks are commonly referred to as decorative chrome plating tanks.

FUNCTIONAL CHROME PLATING

Hard Chromium Electroplating (Hard Chrome Plating)

Hard chromium electroplating involves depositing a "thick" layer of chromium (measured in thousandths of an inch) on a part, imparting corrosion protection, wear resistance, and lubricity and oil retention, among other properties. Examples of parts which are hard chromium electroplated include engine parts and industrial machinery and tools. It is nearly always applied to parts made of steel. Because of the thickness of the electroplating layer, electroplating duration is measured in hours or days. Hard chrome plating operations use hexavalent chromium and the tanks are commonly referred to as hard chrome plating tanks.

Chromic Acid Anodizing

Chromic acid anodizing involves electrolytic oxidation of a surface to produce a wear and corrosion resistant surface without depositing a metallic chromium layer. Anodizing is an electrochemical process during which aluminum is the anode. When an electric current passes through the electrolyte, it converts the metal surface to a durable aluminum oxide. The difference between electroplating and anodizing is that, in anodizing, the oxide coating is integral to the metal substrate as opposed to being a metallic coating deposition. The oxidized surface is hard and abrasion resistant, and it provides some degree of corrosion resistance. Chromic acid anodizing operations use hexavalent chromium, and the tank is commonly referred to as chromic acid anodizing tank.

Continuous Passivation

Continuous passivation is part of an automated process by which parts are passed continuously through an electrolytic hexavalent chromium solution for the purpose of creating a chemically inert surface on the part. These tanks may be referred to as continuous passivation tanks.

Other Tanks with Hexavalent Chromium Emissions (Tiered Hexavalent Chromium Tanks)

Fugitive emissions are emissions that are not collected through air pollution controls. Emissions from the stacks of air pollution controls are known as point source emissions. Recent rules, including Rule 1469, have incorporated requirements such as routine housekeeping and best management practices to prevent fugitive emissions. If the tank's solution leaves the tank, the solution containing hexavalent chromium can become a source of fugitive emissions if not properly maintained through best management practices and routine housekeeping.

Tier I, Tier II, and Tier III Hexavalent Chromium Tanks are tanks that contain hexavalent chromium and may have the potential to be a source of fugitive or point source hexavalent chromium emissions. Decorative chrome plating, hard chrome plating, chromic acid anodizing, and continuous passivation tanks, described above, are categorized as Tier III Hexavalent Chromium Tanks. Other tanks also contain hexavalent chromium due to:

- Tank solution operating specifications (e.g., dichromate seal tanks); and
- Accumulation of hexavalent chromium in the tank from:
    - Specific tank operations (e.g., chrome strip tanks)
    - Tank solution from another tank adhering to part (e.g., rinse tanks).

These tanks can emit hexavalent chromium emissions if the tank is rectified (i.e., stripping tanks), air sparged, or heated above a specific temperature. These emissive tanks make up the other tanks that are categorized as Tier I, Tier II, or Tier Hexavalent Chromium Tanks. Tier III Hexavalent Chromium Tanks being the most emissive tanks have the most stringent requirements, such as air pollution control devices, to control emissions from these tanks. Tier II Hexavalent Chromium Tanks are heated tanks, but due to a combination of hexavalent chromium concentration and temperature, would emit hexavalent chromium at an equivalent emission rate achieved as a controlled Tier III Hexavalent Chromium. As such, Tier II Hexavalent Chromium Tanks are not required to have add-on controls, but still are considered a potential source of fugitive emissions. Tier I Hexavalent Chromium Tanks, the least emissive, are only considered a potential source of fugitive emissions.

Rinse Process

When parts are removed from a chrome plating or chromic acid anodizing tank, facilities will rinse the parts to remove any residual tank solution that is remaining on the parts and conveyance equipment. This is done by use of dragout/rinse tanks, counter-flow rinsing, or spray rinsing. Some rinse tanks, although initially filled with water, can accumulate hexavalent chromium over time. As the rinse tank collects dragout from a tank that contained hexavalent chromium, the hexavalent chromium concentration increases, unless the rinse tank water is changed out on a regular schedule. These tanks are often referred to as stagnant or static rinse tanks.[1] These static rinse tanks, if not changed out frequently enough, may reach the threshold to be considered Tier I, Tier II, or even Tier III Hexavalent Chromium Tanks, depending on the hexavalent chromium concentration of the rinse tank water, operating temperature, and use of air sparging.

HEXAVALENT CHROMIUM

A substance is considered toxic if it has the potential to cause adverse health effects in people. A toxic substance released to the air is considered a "toxic air contaminant" or "TAC." A TAC is defined as an "air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health" (Health and Safety Code Section 39655(a)). TACs are identified by state and federal agencies based on a review of available scientific evidence. In California, the Office of Environmental Health Hazard

[1] U.S. EPA. (2007). *Clean Lines: Strategies for Reducing Your Environmental Footprint - Metal Finishing Operations*. https://www.epa.gov/sites/production/files/2015-03/documents/finishing.pdf

Assessment (OEHHA) is responsible for the scientific evaluation and determination of the health values for TACs that guide regulatory actions, including those of South Coast AQMD. South Coast AQMD Rule 1401 – New Source Review of Toxic Air Contaminants lists these TACs on Table 1 – Toxic Air Contaminants. Metal finishing operations that use tanks to prepare or treat the surface of parts may use solutions that contain metal TACs, including hexavalent chromium.

Hexavalent chromium[2] is one of the most potent carcinogens. Hexavalent chromium is a multi-pathway toxic air contaminant, meaning there are multiple exposure pathways for a person to be exposed, such as inhalation and ingestion. Inhalation of hexavalent chromium can cause both cancer and non-cancer health effects. Inhalation of hexavalent chromium over a long period of time increases the risk of lung cancer and nasal cancer. The non-cancer effects of being exposed to hexavalent chromium at high levels over time can cause or worsen health conditions such as irritation of the nose, throat and lungs; allergic symptoms (wheezing, shortness of breath); and nasal sores and perforation of the membrane separating the nostrils.

REGULATORY HISTORY

Chromium electroplating facilities have been subject to regulation for almost four decades. These facilities are subject to local, state, and federal requirements. These operations may also subject to other rules such as Rule 1426 – Emissions from Metal Finishing Operations, Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, and Rule 1480 – Ambient Monitoring and Sampling of Metal Toxic Air Contaminants, Rule 1469 specifies the control requirements for point sources and fugitive sources of hexavalent chromium emissions. Below is a chronology of regulatory activity prior to 2018.

Pre-2018 Regulatory Efforts at Local, State, and Federal Levels

- In 1986, CARB identified hexavalent chromium as a toxic air contaminant.
- In February 1988, CARB adopted the Chrome ATCM. Compliance with the Chrome ATCM was based on reducing uncontrolled emissions by a specified percentage or meeting an emission limit.
- In June 1988, South Coast AQMD adopted Rule 1169, "Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing", which met the requirements of the Chrome ATCM.
- In 1995, the U.S. EPA adopted the National Emission Standard for Hazardous Air Pollutants (NESHAP). The federal regulations established emission limits for hard chromium electroplating operations, increasing in stringency with a facility's mass emissions and cumulative rectifier capacity. Decorative chromium electroplating and chromic acid anodizing operations are required to meet an exhaust standard, or maintain their electroplating bath at 45 dynes/cm or less. Trivalent chromium operations are subject to the regulation. Numerous monitoring, recordkeeping and reporting requirements are specified.
- In 1998, the Chrome ATCM was amended for consistency with the NESHAP. The Chrome ATCM was expanded to include trivalent chromium operations, and tightened emission limits for hard chromium electroplating, among other things.

[2] Office of Environmental Health and Hazard Assessment. (2016). *Health Effects of Hexavalent Chromium*. https://oehha.ca.gov/air/health-effects-hexavalent-chromium

- South Coast AQMD Rule 1469 was adopted in 1998 as a replacement to Rule 1169. Rule 1469 incorporates the 1998 Chrome ATCM requirements.
- South Coast AQMD Rule 1469 was amended in 2003 as part of the Governing Board's Chairman's Strategic Alliance Initiative #8 – Negotiated Rulemaking Pilot Program through a negotiated rulemaking pilot program.
- In 2004, the U.S. EPA amended the NESHAP. The amendments addressed the use of fume suppressants in hard chromium electroplating tanks, surface tension limits when using a tensiometer, alternate emission limits for hard chromium electroplating tanks equipped with enclosing hoods, revised definition of electroplating and anodizing tanks, and pressure drop monitoring requirements for composite mesh pad systems.
- In December 2006, CARB amended the Chrome ATCM to maximize hexavalent chromium emission reductions from chromium electroplating and chromic acid anodizing facilities by requiring the use of BACT for all facilities. The regulation also ensured that new facilities are isolated from sensitive receptors.
- On October 24, 2007, the amended Chrome ATCM became effective.
- On December 5, 2008, South Coast AQMD Rule 1469 was amended to incorporate the stricter requirements from the amended Chrome ATCM.
- In September 2012, U.S. EPA amended the NESHAP. The federal regulation reduced emission limits, decreasing a facility's mass emissions. Chromium electroplating and chromic acid anodizing which utilize chemical fume suppressants must maintain their electroplating bath to 40 dynes/cm or less. The addition of perfluorooctane sulfonic acid (PFOS) based fume suppressants would be prohibited.

2018 Amendments to Rule 1469

During the 2018 rule development for Rule 1469, South Coast AQMD identified that the process of air sparging and heating of tanks with solutions containing chromic acid generated hexavalent chromium emissions. Rule 1469 was amended to address these previously uncontrolled sources of hexavalent chromium through point source controls. Additional requirements to control fugitive emissions included enhanced housekeeping and best management practices as well as new building enclosure requirements.

Investigations of several Rule 1469 facilities through ambient air monitoring demonstrated the effectiveness of implementation of these control measures to control emissions, both point source and fugitive emissions. Staff conducted ambient air monitoring of hexavalent chromium near two chromic acid anodizing facilities in the South Coast Air Basin: a facility in Newport Beach and a facility in Paramount, where hexavalent chromium levels were above background levels near those facilities. This monitoring provided information about previously unknown sources of hexavalent chromium emissions. Ambient air monitoring also showed that ambient levels of hexavalent chromium were reduced after the facilities implemented control measures for fugitive emissions and installed add-on controls.

The basis for the 2018 rule amendments to Rule 1469 was that there were hexavalent chromium emissions from uncontrolled tanks determined by ambient air monitoring, emissions testing, and other investigative activities. Additionally, implementing control measures to minimize fugitive emissions, while not quantifiable, were effective in reducing ambient levels of hexavalent

chromium. As a result, the 2018 amendments to Rule 1469 required pollution controls on these tanks to address point source emissions, while fugitive emissions were addressed through building enclosure requirements, enhanced housekeeping, and best management practices. Additional details on the 2018 amendments to Rule 1469 are located in the corresponding Final Staff Report.[3]

2021 Amendments to Rule 1469

Rule 1469 was amended to incorporate provisions under Proposed Amended Rule 1426 (PAR 1426) that affect Rule 1469 facilities to streamline implementation of these rules for these facilities. Additional amendments to Rule 1469 removed a reference to a chemical that is no longer used for testing HEPA filters and to update an incorrect table reference. Additional details on the 2021 amendments to Rule 1469 are in the corresponding Final Staff Report.[4]

2023 Amendments to the Chrome ATCM

In 2023, CARB amended the Chrome ATCM.[5] The amended Chrome ATCM includes many existing requirements included in Rule 1469, such as building enclosure, best management practices, and enhanced housekeeping. The Chrome ATCM also includes phase out requirements for both decorative and functional chrome operations as well as restrictions for new sources of hexavalent chromium (Cr^{+6}), whereas Rule 1469 does not contain such requirements. As such, for existing facilities, Rule 1469 is more stringent than the Chrome ATCM until January 1, 2026, when the lower emission limits for hard chrome plating and chromic acid anodizing becomes effective. For new facilities, the Chrome ATCM is more stringent than Rule 1469. Table 1-1 lists the key requirements and timeline.

Table 1-1 – Key Differences between Chrome ATCM and Rule 1469

Requirements	Chrome ATCM	Rule 1469
New Cr^{+6} Plating or Anodizing Facility	Prohibited	Allowed
Decorative Cr^{+6} Phase-out	2030	[None]
Functional Cr^{+6} Phase-out	2039	[None]
Emission Limit for Cr^{+6} Plating and Anodizing Tanks	0.00075 mg/amp-hr (Functional Chrome and Modified Facilities)	0.0015 mg/amp-hr (0.0011 mg/amp-hr for Facilities that begin operation on or after October 24, 2007)
Source Testing Interval	2 years (Functional only)	5 or 7 years (All)

[3] South Coast AQMD. (2018). *29. Certify Revised Final Environmental Assessment and Amend Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations*. https://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-nov2-029.pdf

[4] South Coast AQMD. (2021). *26. Determine That Proposed Amendments to Rule 1426 – Emissions from Metal Finishing Operations, and Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, Are Exempt from CEQA, and Amend Rule 1426 and Rule 1469*. https://www.aqmd.gov/docs/default-source/agendas/governing-board/2021/2021-apr2-026.pdf

[5] California Air Resources Board. (2023). *Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations.* https://ww2.arb.ca.gov/sites/default/files/2024-01/Chrome%20Plating%20FRO_clean_23Jan2024.pdf

The effective dates of some of the more notable requirements are:

- January 1, 2024
  - Prohibits new hexavalent chrome plating and chromic acid anodizing facilities
  - Lower emission limit (0.00075 mg/amp-hr) for facilities that undergo a modification
- January 1, 2026
  - Facilities to operate within a building enclosure[6]
  - Lower emission limit (0.00075 mg/amp-hr) for hard chrome plating and chromic acid anodizing
- January 1, 2027 – Phase out of hexavalent decorative chrome plating not within a building enclosure
- January 1, 2030 – Phase out of hexavalent decorative chrome plating within a building enclosure
- January 1, 2039 – Phase out of hexavalent hard chrome plating and chromic acid anodizing (pending two technology reviews to be completed by January 1, 2032, and January 1, 2036)

AFFECTED FACILITIES

Within the South Coast AQMD there are currently 72 known facilities conducting decorative chrome, hard chrome, and chromic acid anodizing operations. Of these 72 facilities, there are 30 decorative chrome plating facilities, 18 hard chromium electroplating facilities, 21 chromic acid anodizing facilities, and 3 that conduct both hard chrome plating and chromic acid anodizing. Table 1-2 lists the different North America Industry Classification System (NAICS) codes for the affected facilities.

Table 1-2 – NAICS Codes for the 72 Affected PAR 1469 Facilities

Industry	NAICS Code	Number of Facilities
Fabricated metal product manufacturing	**332**	**66**
Machine Shops	332710	2
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	1
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	2
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	60
Plumbing Fixture Fitting and Trim Manufacturing	332913	1
Other Manufacturing	**334 and 336**	**5**
Totalizing Fluid Meter and Counting Device Manufacturing	334514	1
Aircraft Manufacturing	336411	1
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	3
Repair and maintenance	**811**	**1**
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	1

[6] Rule 1469 requires a Tier I, II, or III Hexavalent Chromium Tank to be operated within a building enclosure

NEED FOR PROPOSED AMENDED RULE 1469

As previously discussed, while the 2023 amendments to the Chrome ATCM incorporate many of the requirements of Rule 1469, there are additional requirements that include the phase out of the use of hexavalent chromium for decorative chrome plating operations by January 1, 2030, and the phase out of the use of hexavalent chromium for functional chrome operations by January 1, 2039. The Chrome ATCM also prohibits new hexavalent chrome plating and chromic acid anodizing facilities that would be subject to Rule 1469, includes more stringent requirements for existing facilities that undergo a modification, and more stringent requirements beginning January 1, 2026, for functional chrome operations.

PAR 1469 is needed to ensure that Rule 1469 is at least as strict as the current Chrome ATCM by incorporating the more stringent requirements that includes the prohibition of new hexavalent chromium for new chrome plating or chromic acid anodizing facilities, new requirements for modified facilities as well as the more stringent requirements for functional chrome plating operations prior to the phase out of the use of hexavalent chromium for decorative chrome plating operations and functional chrome operations.

Additionally, there are existing requirements in Rule 1469 which need to be amended to:

- Clarify applicability of requirements for specific facilities
- Clarify the timeframe for cleaning prior to roof cutting activities
- Further prohibit actions that would generate fugitive emissions
- Clarify the acceptable methods to comply with best management practices

Further discussion on the requirements and changes are discussed in Chapter 2.

Health and Safety Code Section 39666(d) mandates the South Coast AQMD to implement and enforce ATCMs or enforce equally effective or more stringent rules than ATCMs adopted by CARB. Proposed Amended Rule 1469 (PAR 1469) is being amended to incorporate the more stringent requirements of the Chrome ATCM.

PUBLIC PROCESS

Development of PAR 1469 ~~is being~~has been conducted through a public process. A PAR 1469 Working Group was formed to provide the public and stakeholders an opportunity to discuss important details about the proposed amended rule and provide staff with input during the rule development process. The Working Group ~~is~~ was composed of representatives from businesses, environmental groups, public agencies, and consultants. South Coast AQMD ~~has~~ held two working group meetings conducted virtually using Zoom. The meetings were held on March 11, 2025, and July 23, 2025. ~~Since~~ After the adoption of the Chrome ATCM, two regulatory advisories ~~have been~~were released. The first regulatory advisory[7] was sent out March 2024 to facilities subject to Rule 1469 to inform them that the South Coast AQMD planned to amend Rule 1469 to incorporate

[7] South Coast AQMD. (2024). *REGULATORY* ADVISORY *Implementation of South Coast AQMD Rule 1469 and CARB Airbourne Toxic Control Measure*. https://www.aqmd.gov/docs/default-source/rule-book/support-documents/rule-1469/2024-chrome-atcm-regulatory-advisory-for-rule-1469-facilities-032724.pdf

the provisions of the Chrome ATCM. The advisory was also appended to Rule 1469 to increase awareness for stakeholders. Another regulatory advisory[8] was sent out to stakeholders in June 2025 to remind the facilities of the more stringent Chrome ATCM requirements for functional chrome facilities required by January 1, 2026. In addition, a Public Workshop was held on August 27, 2025, to present the proposed amended rule and receive public comment.

[8] South Coast AQMD. (2025). *REGULATORY ADVISORY Upcoming Deadlines and Compliance Requirements*. https://www.aqmd.gov/docs/default-source/rule-book/proposed-rules/1469-(2025)/par-1469-2025-regulatory-advisory_final.pdf

CHAPTER 2 – SUMMARY OF PROPOSED AMENDED RULE 1469

OVERVIEW OF PAR 1469

Rule 1469 applies to owner or operator of any facility performing chromium electroplating or chromic acid anodizing. PAR 1469 does not change the applicability of the rule.

PAR 1469 requirements incorporate the more stringent requirements in the Chrome ATCM. These can be categorized into three key types:

- New facility and modified facility requirements;
- Phase out dates for decorative chrome and functional chrome operations; and
- New emission limits and more frequent source testing.

PAR 1469 prohibits new facilities that use hexavalent chromium for chromium electroplating or chromic acid anodizing. PAR 1469 requires facilities, upon completion of the modification (as defined by PAR 1469), to meet all the new requirements such as emission limits. Furthermore, PAR 1469 requires all electroplating and chromic acid anodizing tanks using hexavalent chromium at a facility that underwent a modification to meet the new emission limit.

PAR 1469 will require the phase out of the use of hexavalent chromium for decorative chrome plating by January 1, 2030. The phase out date of the use of hexavalent chromium for functional chrome plating is referenced to a date specified in the Chrome ATCM, currently January 1, 2039. PAR 1469 will also require functional chrome facilities to submit application(s) to update permits to incorporate new emission limits and for evaluation to ensure compliance with the more stringent requirements.

Additional changes being proposed beyond the Chrome ATCM, include, but are not limited to:

- Further prohibit activities as to prevent fugitive emissions
- Clarify that secondary containment devices may not be used to comply with certain existing requirements
- Labelling of tanks with open permit application
- Capitalize defined terms throughout the rule
- Clarify applicability of existing requirements

PROPOSED AMENDED RULE 1469

Applicability – Subdivision (b)

The applicability was not changed. This rule applies when a facility performs chromium electroplating or chromic acid anodizing. A facility may have an assortment of equipment where certain ones are subject to a specific rule, so the facility itself is subject to multiple rules.

For example, a facility that conducts chromium electroplating or chromic acid anodizing, may have a paint booth that applies coatings with VOCs. This equipment would not be subject to PAR 1469 or its requirements as the paint spray booth is not associated with chrome plating.

Definitions – Subdivision (c)

PAR 1469 deleted the following terms as they were used in previous rule language related to new facilities which are no longer allowed.

- MAXIMUM CUMULATIVE POTENTIAL RECTIFIER CAPACITY (deleted)

PAR 1469 added or modified the following terms used in the proposed amendment. Please refer to PAR 1469 for actual definitions.

- APPROVED CLEANING METHOD (modified)
- AUTOMATED LINE (added)
- ASSOCIATED PROCESS TANK (modified)
- AUTOMATED LINE (added)
- BASE MATERIAL (deleted)
- CHROMIUM ELECTROPLATING (added)
- CONTAINMENT DEVICE (added)
- CONTINUOUS PASSIVATION (added)
- ENCLOSED HEXAVALENT CHROMIUM TANK (added)
- FUNCTIONAL CHROME PLATING (added)
- HARD CHROMIUM ELECTROPLATING (modified)
- MODIFICATION (modified)
- NEW FACILITY (deleted)
- PACKED-BED SCRUBBER (modified)
- RECENT FACILITY (added)
- RINSE TANK (added)
- SECONDARY CONTAINMENT (added)

- SPLASH GUARD (added)
- TIER I HEXAVALENT CHROMIUM TANK (modified)
- TIER II HEXAVALENT CHROMIUM TANK (modified)
- TIER III HEXAVALENT CHROMIUM TANK (modified)
- TRIVALENT CHROMIUM PROCESS (modified)

ASSOCIATED PROCESS TANK was modified to align with the Chrome ATCM to clarify that these tanks may contain hexavalent chromium in lower concentrations than Tier I Tanks.

AUTOMATED LINE was added to clarify the distinction between automated and non-automated lines for best management practice requirements in subdivision (g). Automated lines move the base material (parts) along a well-defined path through the line of tanks. The movement of the parts includes the use of cranes, hoists, or other mechanized conveyance equipment such as rollers.

BASE MATERIAL was deleted. Part is used in rule language to represent the workpiece or part being processed within tanks subject to this rule. The workpiece or part being processed does not affect the requirements. PAR 1469 requirements are dependent on operation and type of material (e.g., containing hexavalent chromium, trivalent chromium). Therefore, defining the workpiece or material did not provide any added value.

CHROMIUM ELECTROPLATING was added to establish a term encompassing hexavalent and trivalent chromium electroplating. Chromic acid anodizing would be excluded from this definition. This approach also aligns with the Chrome ATCM for existing and new requirements.

CONTAINMENT DEVICE was added to clarify the broad category of devices to capture or direct spills, dragout, or overspray.

Examples of a Containment Device include a drip tray, Splash Guards, portable devices (e.g., a cart or oil catch pan) and Secondary Containment (an area typically found on the floor underneath a raised Tank Process Area).

Secondary Containment or Splash Guard are specific types of Containment Devices, each with their own definitions.

Requirements regarding operation and maintenance of a Containment Device are discussed in subdivision (f) and subdivision (g) in this chapter.

CONTINUOUS PASSIVATION was added to align with the Chrome ATCM to include an electrolytic process not previously identified. The Chrome ATCM classifies this operation as hard chrome plating. This operation is not synonymous with the passivation process typically occurring in hexavalent chromic acid anodizing (subject to Rule 1469) or non-hexavalent anodizing (e.g., sulfuric acid anodizing) where a chemical reaction passivates the surface of a part. Staff has not identified any facilities using this process in South Coast AQMD.

ENCLOSED HEXAVALENT CHROMIUM TANK was added to clarify which equipment is subject to the parametric monitoring requirements in the two appendices.

FUNCTIONAL CHROME PLATING was added to align with the Chrome ATCM to simplify references in requirements that apply to both hard chromium electroplating and chromic acid anodizing. Continuous Passivation is included to align with the Chrome ATCM.

HARD CHROMIUM ELECTROPLATING has been modified to align with the Chrome ATCM with the removal of the alternative term Industrial Chromium Electroplating that is no longer used in rule language.

MAXIMUM CUMULATIVE POTENTIAL RECTIFIER CAPACITY was deleted as it was no longer used in rule language.

MODIFICATION has been modified to clarify that increase in hexavalent chromium emissions are from the facility as a whole rather than a permit unit. While the Chrome ATCM included language that construction of building enclosures to meet requirements does not constitute a modification, South Coast AQMD facility construction has already been implemented thus this addition was not needed. The Chrome ATCM also states that the changes related to conversions from hexavalent chromium to alternative technologies also do not constitute a modification. As the addition of non-hexavalent chromium equipment would not result in the increase of hexavalent chromium emissions, this addition was not needed in the definition.

NEW FACILITY was deleted and replaced with RECENT FACILITY to avoid confusion. Rule 1469 used the term New Facility relative to the date of the 2008 amendment. The Chrome ATCM prohibits a new facility from beginning the use of hexavalent chromium for purposes of chromium electroplating or chromic acid anodizing.

PACKED-BED SCRUBBER has been modified to align with the Chrome ATCM with removal of unnecessary information.

RECENT FACILITY was added to replace former NEW FACILITY (deleted). The definition for RECENT FACILITY was taken from NEW FACILITY and modified with a date range to include only those facilities previously considered a NEW FACILITY that were subject to existing rule requirements prior to PAR 1469 adoption.

For example, a facility that began chromium electroplating or chromic acid anodizing operations in 2023 would be considered a Recent Facility. A facility that would begin conducting chromium electroplating in 2027 would be a new facility that is prohibited by PAR 1469 and the Chrome ATCM. Additional details regarding the prohibition of this facility is discussed in subdivision (v) of this chapter.

SECONDARY CONTAINMENT has been added to define a type of Containment Device which is a space or structure on the floor. This Containment Device is used to contain tank solutions (liquid) in the event of a failure of tank integrity (e.g., earthquake cracks the tank and tank solution is released). It serves a backup of the primary container(s), in this case the plating tank structure. With the use of Secondary Containment, if there was a failure of the tank integrity, tank solutions

would not release its contents in the facility where it could end up in sewage systems, storm drains, or tracked out by workers. The rule distinguishes the use of Secondary Containment from other types of Containment Devices.

An example of Secondary Containment used for plating operations is a lined containment area with a berm (wall) along the perimeter designed to hold a required minimum volume of liquid from leaks from equipment above. The Secondary Containment is located beneath one or more elevated tanks with associated walkways.

SPLASH GUARD has been added to provide further clarification on what Containment Devices are considered Splash Guards.

TIER I HEXAVALENT CHROMIUM TANK/TIER II HEXAVALENT CHROMIUM TANK/TIER III HEXAVALENT CHROMIUM TANK have been modified to clarify that the classification is based on either how the tank operated or if a permit allows the operation of the tank to meet the criteria. These definitions have also been restructured to clarify the tank designation would be based on the highest applicable tier.

For example, a tank permitted to operate a maximum concentration of 10,000 ppm and up to 190 degrees Fahrenheit would be considered a Tier III Hexavalent Chromium Tank even if it has sometimes operated at a concentration of 750 ppm and at ambient temperature. To lower the applicable tier, the permit must be modified to limit operations to prevent the tank from being operated at a higher tier. This can include modifying the permit to reduce the allowable maximum concentration of hexavalent chromium, to lower maximum operating temperature, to prohibit air sparging, or to prohibit electrolytic operations. If the tank were to operate contrary to permit conditions (e.g., operating the tank so that it is considered a higher-tiered tank), the owner or operator may be subject to enforcement action for violating permit conditions and not complying with applicable higher-tiered tank PAR 1469 requirements. These revisions are for clarification as the classification methodology and justification were discussed during the 2018 development of Rule 1469.

TRIVALENT CHROMIUM PROCESS has been modified to align with the Chrome ATCM with minor edits including the strikeout of the word thin and the replacement of the term chromic acid with hexavalent chromium. This modification is intended to include all electroplating that uses trivalent chromium.

Requirements – Subdivision (d)

Paragraph (d)(1) has been modified to clarify that the requirement is applicable for only Chromium Electroplating and Chromic Acid Anodizing Tanks instead of all rectified tanks. This would exclude electrolytic stripping tanks or non-Chromium Electroplating tanks, such as a nickel plating tank or a cadmium plating tank. Other electrolytic tanks would be regulated by Rule 1426 and permit conditions may still require installation of the ampere-hour meters.

Paragraph (d)(2) has been modified to correct the references of the certification process for Chemical Fume Suppressants. The certification process was conducted jointly by South Coast AQMD and CARB. Certified products are listed on a South Coast AQMD website. This

modification does not change the requirements for Chemical Fume Suppressants and only serves to correct the reference.

Requirements for Building Enclosures for Tier II and Tier III Hexavalent Chromium Tanks – Subdivision (e)

Paragraph (e)(9) has been moved to subdivision (r) as it is an exemption.

Housekeeping Requirements – Subdivision (f)

Subdivision (f) specifies the required housekeeping requirements. This includes how materials are handled and stored, including chemicals and waste containing hexavalent chromium, as well equipment potentially contaminated with hexavalent chromium. Routine cleaning using approved cleaning methods of specified areas and equipment at specified intervals and prompt cleanup of accidental spills are required.

Paragraph (f)(3) has been modified to clarify the housekeeping requirements to address liquid or solid spilled materials that may contain hexavalent chromium. The owner or operator would be required to address spills by at least one of the following:

- Capture the material using a Containment Device
- Clean the material immediately but no later than one hour after being spilled

A Containment Device used to contain a spill or redirect tank solutions would be subject to weekly cleaning requirements now clarified by inclusion into paragraph (f)(4) as it is a surface that would be potentially contaminated with Hexavalent Chromium.

Examples of spills include:

- Liquid in Containment Device that is accidentally bumped and the liquid falls out of the Containment Device onto a walkway
- Chromic acid flakes being transported in a closed container accidentally dropped and releasing its contents onto the floor
- During the transfer of waste from weekly cleaning of an open floor area around a Tier III Hexavalent Chromium Tank to a closed container in an Enclosed Storage Area, the waste is partially spilled onto the floor.

PAR 1469 specifically excludes materials that are meeting the requirements of either paragraph (g)(1) for Dragout or (g)(2) for overspray from the requirements in paragraph (f)(3), as the material would be captured/directed or contained with a Containment Device. In the event, Dragout or overspray is not properly captured, directed or contained, the facility may not be in compliance with paragraph (g)(1) or (g)(2) and the material would be considered a spill and subject to the requirements of paragraph (f)(3). Further discussion on Dragout or overspray is found in the discussion of paragraph (g)(1) or (g)(2).

Paragraph (f)(5) requires that containers with chromium-containing waste be kept closed except when waste is being added to the container or emptied. For facilities that use hexavalent chromium

for chrome plating operations, the 2023 Chrome ATCM includes a new requirement to store these closed containers in an Enclosed Storage Area.[9] An Enclosed Storage Area shall be designated only for storage to prevent spills and other accidental releases. As such a Building Enclosure by itself would not satisfy this requirement unless the entire Building Enclosure is exclusively used for storage only. To align with the Chrome ATCM, clause (f)(5)(C)(i) has been added in PAR 1469 to include an additional requirement to store Hexavalent Chromium-containing waste in a container that is inside an Enclosed Storage Area. Enclosed Storage Areas include, but are not limited to cabinets, closets, sheds, drums, totes, bins, or other spaces or structures that meet the definition to prevent its contents from being emitted into the atmosphere. Images below show examples that would satisfy the requirement of an Enclosed Storage Area.

Waste containers are typically stored in separate enclosed storage rooms or areas where there is a physical barrier to separate it from other non-storage activities. However, changeout of tank solutions, which occurs infrequently, might result in larger volume of waste solutions. Some facilities might not have a designated storage area for the temporary storage of the large volume of waste generated from tank changeouts. As such, PAR 1469 clause (f)(5)(C)(ii) includes an equally effective compliance pathway by allowing the use of physical barriers to designate a storage area within a Building Enclosure to prevent spills and other accidental releases. The physical barriers may be either portable or permanent, including use of building walls, welding screens, plastic strip curtains, or other equipment that serves as a physical barrier to personnel and

[9] California Air Resources Board. (2022). Staff Report: Initial Statement of Reasons. https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2023/chromeatcm2023/isor.pdf

equipment. Images below show examples of physical barriers that can be used to create a designated storage area within a Building Enclosure.



Requirements in paragraph (f)(8) for roof cutting of Building Enclosures was modified to specify the earliest roof surfaces could be cleaned before roof cutting activities start and additionally requires that both HEPA vacuuming and wet wiping be conducted prior to roof cutting activities. Rule 1469 did not specify a timeframe when the roof cleaning would need to occur, so a roof cleaning that occurred two years earlier could have met this requirement. The original intent was to require measures just prior to roof cutting activities to prevent the generation of fugitive emissions. If roof cleaning is conducted too far in the past, residual Hexavalent Chromium material may redeposit over time. The timeframe restriction of 48 hours is based on the minimum time prior to notifying South Coast AQMD that roof cutting activities will occur. Roof cutting activities include preparation of the work area such as setting up equipment needed for the roof cutting and site cleanup afterwards. The following timeline outlines the appropriate steps to meet the requirements.

January 1, 2026
- 7:00 AM - Notify South Coast AQMD when roof cutting activities will begin (i.e. January 4, 2026 8:00 AM)

January 2, 2026
- 5:00 PM – Roof cleaning completed

January 4, 2026
- 8:00 AM – Roof cutting activities begin

Best Management Practices Requirements – Subdivision (g)

Subdivision (g) specifies the best management practices that a facility is required to comply with to minimize fugitive emissions.

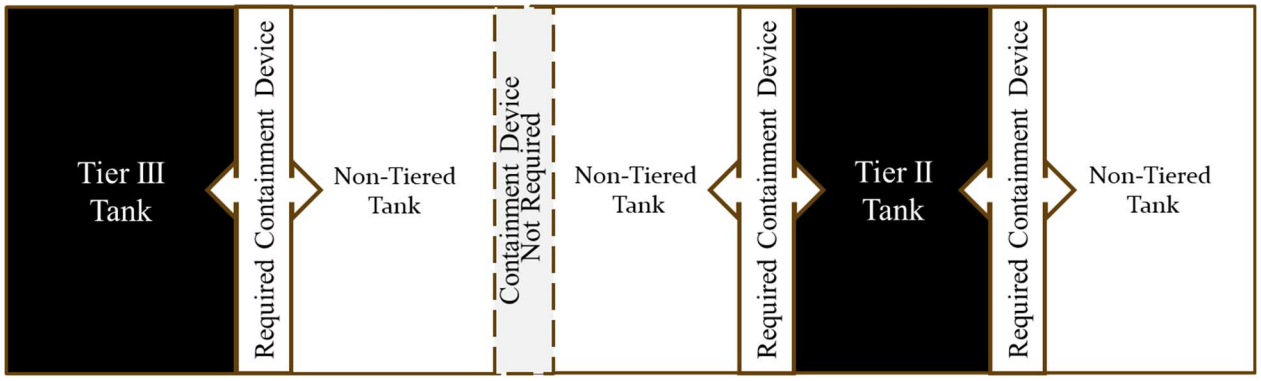
Paragraph (g)(1) has been modified to clarify the requirements for an Automated Line and non-Automated Line to reduce Dragout. A process line or individual tank that does not meet the definition of an Automated Line would be subject to the requirements of a non-Automated Line.

Automated Lines

Automated lines are characterized by using additional equipment to hang parts and move them from tank to tank in a defined path. Hoist, cranes, or other conveyance equipment are used when large or many parts are processed at once in a series of large tanks. The tanks are positioned adjacent to each other, where the defined path for the part is over a tank. As the part is over a tank, Dragout would mostly return to a tank, except when Dragout falls in between two tanks or on the lip of a tank. A common industry practice is to use a sloped containment device that returns Dragout back to a tank. These containment devices are commonly referred to as drip trays. However, if Dragout falls where there is no drip tray, additional containment devices may be needed to prevent Dragout from falling outside a tank. Preventing loss of tank solutions due to Dragout helps reduce costs incurred by the facility by reducing the amount chemicals needed to prepare new tank solutions as well as hazardous waste disposal fees required for waste generated due to required cleaning.

Subparagraph (g)(1)(A) requires that for Automated Lines, all Dragout is captured by Containment Device. Containment Devices for Automated Lines are required to be installed and maintained between a Tier I, Tier II, and Tier III Hexavalent Chromium Tank and the adjacent tank in the tank line. Figure 2-1 illustrates an example of where Containment Devices are required in a tank line with Tier II and Tier III Hexavalent Chromium Tanks (Tier II and III Tank) and adjacent tanks.

Figure 2-1 – Example of Required Containment Devices for an Automated Line*

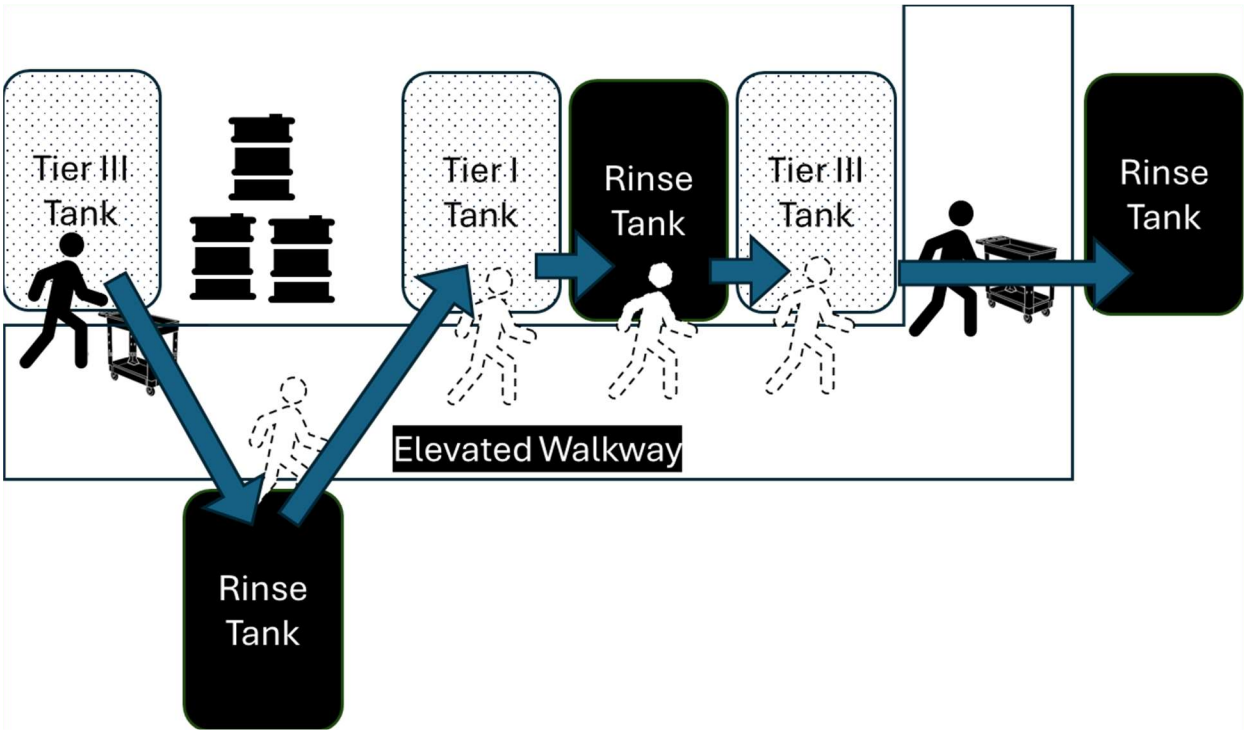


** Additional Containment Devices may be needed to prevent Dragout from falling outside a tank*

Non-Automated Lines

Non-Automated lines differ from Automated Lines where parts and hangers are manually moved from tank to tank by workers. Tanks in a Non-Automated Line may be adjacent to each other or located across walkways or further away in the tank process area. While a Containment Device can be installed between adjacent tanks to address Dragout, when tanks are not adjacent, workers will use portable containment devices such as trays or carts to capture and contain the Dragout so that it does not fall onto walkways. Figure 2-2 illustrates the route a part may be treated in a non-Automated Line where a worker manually moves part, using a cart across walkways to capture Dragout, and treats the part in multiple tanks. As illustrated, the part follows a path going from non-adjacent tanks or crossing a walkway to get to the next tank in the process line. As such, it would not be practical to install a permanent device as required by an Automated-Line.

Figure 2-2 – Example a Non-Automated Line



Non-Automated Lines are required by subparagraph (g)(1)(B) to either utilize a Containment Device or handle the part or equipment such that no Dragout is dripped outside the tanks. A portable Containment Device, such as a catch pan, tray, or cart, may be used provided the Dragout that is captured by the Containment Device is returned to a tank.

For both Automated and non-Automated Lines, PAR 1469 clarifies that Secondary Containment would not be an acceptable method to meet these requirements. The Chrome ATCM and Rule 1469 have prohibited this action since 2008, as Dragout would be falling between tanks to land

onto Secondary Containment that are on the floor beneath the tank line. Use of Secondary Containment is not an acceptable method to prevent Dragout, as Dragout that is not captured and sent back to a tank may become a potential source of fugitive emissions. PAR 1469 requires Dragout captured by a Containment Device is returned to the tank and cleaned on weekly basis to align with the Chrome ATCM.

Spray rinsing requirements from subparagraph (g)(1)(B) have been relocated into paragraph (g)(2) that specify other spray rinsing requirements. Paragraph (g)(2) has been restructured to incorporate the requirement.

Paragraph (g)(3) specify tank labeling requirements for tanks located within a Tank Processing Area. The original intent behind labeling was to assist both operators and South Coast AQMD inspectors in identifying Tier I, II and III Hexavalent Chromium Tanks and to ensure the appropriate operating conditions are maintained. Tank labeling must be legible and visible to the reader from the walkway adjacent to the tank. PAR 1469 has moved the existing tank labeling requirements to subparagraph (g)(3)(A). A tank label would need to be updated to reflect any new operating parameters if a permit is reissued by the South Coast AQMD.

Subparagraph (g)(3)(B) has been added to include additional labeling for a tank that has been physically altered and has not yet been issued a permit or reissued a new permit by the South Coast AQMD. An application for an existing tank may be submitted due to 1) Proposed modifications to the tank (e.g., permitted or previously exempt), or 2) Align the permit to operate for a previously altered tank (which is not allowed and usually the result of a Notice issued to a facility). After issuance of the new permit to operate, there would no longer be an open permit application, and the additional labeling would no longer be required as a new tank label pursuant to subparagraph (g)(3)(A) would reflect all the current information. This provision facilitates the proper identification of each tank.

Subparagraph (g)(3)(C) has been added to include labeling information required by the Chrome ATCM for tanks that contain trivalent chromium to align with the Chrome ATCM.

Paragraph (g)(7) has been added to prohibit walking or standing on Containment Devices unless measures have been taken to minimize track-out of material that may generate fugitive emissions. South Coast AQMD recently observed a practice where operators walked on a Containment Device and stored materials on the Containment Device. This practice could lead to track-out of hexavalent chromium laden liquid and contamination of objects stored on the Containment Device. To prevent the generation of fugitive hexavalent chromium emissions, the practice would be prohibited unless preventative measures are followed. Staff has not observed this as a common practice and it is not anticipated to impact a significant number of facilities.

Air Pollution Control Technique Requirements – Subdivision (h)

A footnote has been added to Table 1 to clarify that Functional Chrome Plating tanks would be subject to more stringent requirements that are specified in a later subdivision. This is to provide clarity to the structure of PAR 1469. Revisions were made to make clearer who is subject to the specific requirements in this subdivision.

Subparagraph (h)(2)(B), (C), and (D) have been modified to clarify that the requirements are only applicable to specific facilities permitted between 2007 to [Date of Adoption]. The term New Facility has been replaced by Recent Facility in rule language and the table. These requirements are retained for enforceability purposes in the event a Recent Facility has not met these requirements. The term New Facility has been replaced by Recent Facility in other relevant parts of the rule.

Subparagraph (h)(3) specifies the emission standards for tanks using a Trivalent Chromium Process. PAR 1469 was updated to align with Chrome ATCM where the emission standards are not limited to decorative purposes only but for any chrome plating using a Trivalent Chromium Process.

Paragraph (h)(6) has been modified to include an alternative ventilation velocity approved by the Executive Officer. During the development of Rule 1469 (2018) an acceptable capture velocity was either based on *Industrial Ventilation, A Manual of Recommended Practice for Design* or an alternate velocity approved by the Executive Officer. This compliance alternative was included in paragraph (k)(7), which established the source testing requirements for capture efficiency. However, this was not incorporated into paragraph (h)(6), which specified the appropriate capture velocity an air pollution control technique. PAR 1469 corrects this oversight and allows an alternative ventilation velocity under both (h)(6) and (k)(9).

Training and Certification – Subdivision (j)

Paragraph (j)(1) has been modified to remove training and certification requirements for new facilities which are now prohibited.

Source Test Requirements and Test Methods – Subdivision (k)

Subdivision (k) specifies the source testing related requirements for Tier II and Tier III Hexavalent Chromium Tanks to demonstrate compliance with the applicable emission limits. This includes the submission of a source test protocol with applicable methods and procedures to be approved by the South Coast AQMD. A source test is required to be conducted pursuant to the approved source test protocol to demonstrate compliance with the emission limit.

A footnote has been added to Table 3 to clarify that Functional Chrome Plating tanks would be subject to more stringent requirements that are specified in a later subdivision. This is to provide clarity to the structure of PAR 1469.

Paragraphs (k)(2) through (k)(4) have been added to incorporate the more stringent source testing requirements in the Chrome ATCM for facilities undergoing a modification (as defined by PAR 1469) or for Functional Chrome Plating facilities. This includes requirements for:

- Protocol submission;
- Addendum submission;
- Due date for the first source test to demonstrate meeting the new emission limit;
- Conducting the source test;

- Measurement and calculation of the emission rate; and
- Subsequent source test.

Facilities subject to existing Rule 1469 have been required to conduct a periodic source test to verify the emission limits. While PAR 1469 does not expand the type of sources that would be required to conduct a source, PAR 1469 modifies how to calculate the emission rate (this is further discussed later in discussion of subdivision (x)). To verify the source test, conducted no earlier than 2024, used to demonstrate compliance with the new applicable emission limit was conducted pursuant to the PAR 1469 subdivision (k), facilities would be required to submit an addendum that identifies the differences between the source test conducted to meet the new emissions limit and the most recently approved source test protocol. Based on the information, the Executive Officer may require the submission of a new or updated source test protocol. If the addendum demonstrates the source test conducted earlier meets the applicable requirements, no further action needs to be taken. If the conducted source test does not meet the requirements of PAR 1469 subdivision (k), the source test could not be used to demonstrate compliance with the more stringent emission limits.

For example, if a Functional Chrome Plating Facility's source test separately evaluated emissions from plating and non-plating Tier III Hexavalent Chromium Tanks connected to the same Add-on Air Pollution Control Device, this source test could not be used to meet the applicable source test requirements. The facility would need to submit a new protocol for approval and conduct the source test as required for Functional Chrome Plating facilities specified in subdivision (x).

A source test conducted in calendar year 2024 or 2025 could serve as the first source test if it was conducted consistent with the requirements of PAR 1469 and demonstrated to meet the more stringent emission limit. An emission screening test (one-run test) would not meet the requirements of the first source test.

Subsequent source tests are due every two calendar years for Functional Chrome Plating facilities. The following provides an example of a source testing schedule that would meet the requirements of both the initial and subsequent source test, provided no modifications are made to the equipment.

- 1st Source Test: February 1, 2025
- 2nd Source Test Due Date: December 31, 2027
- 3rd Source Test Due Date: December 31, 2029

A decorative electroplating facility that underwent a modification would be required to conduct a source test to demonstrate compliance with the more stringent emission limit but would not be subject to the subsequent source testing requirements of the new paragraph. However, decorative electroplating facilities are still subject to the retest schedule of once every 60 or 84 months as specified in Table 3 – Source Tests Schedules, found in paragraph (k)(1).

Paragraph (k)(6) has been modified to exclude a facility subject to subdivision (w) (modifications) or (x) (new Tier III Tank requirements) from utilizing an emission screening test to demonstrate

compliance with the applicable limit. This incorporates the more stringent requirement of the Chrome ATCM, which does not allow the use of an emission screening test. As subdivision (w) or (x) have specific effective dates, an emission screening test meeting the applicable requirements would be acceptable prior to the effective date. Decorative electroplating facilities could continue to conduct an emission screening test to demonstrate compliance with the applicable emission limit(s) in paragraph (h)(2) or (h)(4), unless they modify and are required to meet the requirements to subdivision (w).

Subparagraph (k)(7)(B) has been modified to require the submission of source test protocol if the Executive Officer requests an updated or new source test protocol. This is consistent with other recently adopted South Coast AQMD rules.

Wetting Agent Chemical Fume Suppressant Requirements – Subdivision (l)

The heading for subdivision (l) has been changed as the certification and approval process for certified chemical fume suppressants are conducted outside this rule.

Paragraphs (l)(4) through (l)(9) have been deleted as they are no longer needed. These paragraphs were relevant if South Coast AQMD decertified a chemical fume suppressant based on the evaluation of emissions of PFAS (per- and polyfluoroalkyl substances) commonly referred to as forever chemicals. Stakeholders were concerned with these emissions during the 2018 PAR 1469 rulemaking. U.S. EPA had already banned the use of PFOS (perfluorooctane sulfonate), a subgroup of PFAS. South Coast AQMD conducted an evaluation of the PFAS emissions, finding the emissions of PFAS to be low. These results were presented to the South Coast AQMD Governing Board during the November 2019 Stationary Source Committee.[10] As a result, no chemical fume suppressants were removed from certification. Emissions of PFAS are expected to decrease with the staggered phase out of the use of Hexavalent Chromium for both Decorative Chromium Electroplating and Functional Chrome Plating operations that use chemical fume suppressants containing PFAS to comply with emission limits for Hexavalent Chromium.

Parameter Monitoring – Subdivision (m)

Subdivision (m) includes parameter monitoring requirements for add-on air pollution devices and add-on non-ventilated air pollution control devices. Parameter monitoring verifies that both the capture of emissions and operation of the control devices are working as designed in between source tests. The Chrome ATCM requires more frequent source tests and did not add the parameter monitoring requirements from Rule 1469. PAR 1469 retains the parameter monitoring requirements, but makes the following modifications:

- Monitoring frequency for air velocities at collection slots measurements (slot velocity) and push air manifold pressure at Functional Chrome Facilities

- Procedures to monitor air velocities at collection slots

[10] South Coast AQMD. (2019). NOVEMBER STATIONARY SOURCE COMMITTEE MEETING – Item #4. https://www.aqmd.gov/docs/default-source/agendas/ssc/ssc-agenda-11-15-19.pdf?sfvrsn=6cd4c561_16

PAR 1469 has modified the parameter monitoring schedule to assess slot velocity and push air pressure to be based on the most recent source test date as both parametric measurements are also conducted as part of the source tests. Additionally, the parameter monitoring frequency for slot velocities and push air pressure measurements were modified from once every 180 days to once every 365 days. The modification to the parameter monitoring schedule for slot velocities and push air pressure measurements was due to an increase in source test frequency and a determination that an evaluation every 365 days was sufficient for facilities that conduct source tests every two years (i.e., Functional Chrome Plating facilities). The frequency of conducting a smoke test remains unchanged to retain a periodic evaluation of capture efficiency to ensure emissions are being captured and vented to control equipment. All other parametric monitoring requirements remain in place to ensure pollution control equipment are operated in compliance to control hexavalent chromium emissions between source tests.

Decorative Chrome Plating parameter monitoring frequency remains unchanged.

Footnotes have been added to Table 5 to clarify the location where slot velocity measurements and pressure measurements would occur and to clearly state that alternative slot velocities less than 2,000 fpm would be based on the most recently approved source test report.

For example, if the approved source test report showed that the equipment met the emission limit at 1,800 fpm, then a measurement of at least 1,710 fpm (i.e., 95%) would be the acceptable measurement. Additionally, the source test report may indicate that an alternative velocity would be allowed due to the control configuration (e.g., a pull-pull system).

Inspection, Operation, and Maintenance Requirements – Subdivision (n)

Paragraph (n)(5) has been modified to specify the requirement to maintain an operation and maintenance plan that reflects the current operation. Rule 1469 did not specify when the operation and maintenance plan would be required to be prepared. PAR 1469 clarifies the requirement by requiring the operation and maintenance to be maintained (updated and kept current). This incorporates the updating requirements from former paragraph (n)(9).

Paragraph (n)(8) has been modified to specify how changes to the operation and maintenance plan would be documented: Changes would now be incorporated into a revised plan instead of in an addendum.

Paragraph (n)(9) (amended operations and maintenance plan) has been deleted as the requirements have been incorporated into paragraph (n)(5) (operation and maintenance plan).

Recordkeeping – Subdivision (o)

Subdivision (o) requires that records are maintained to demonstrate compliance with requirements from other subdivisions of this rule such as emission limits, parameter monitoring, inspections, and maintenance.

Paragraph (o)(12) has been added to specify how to demonstrate the first rinse tank following a tiered tank is not a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. Rule 1426 has a similar process to exempt a rinse tank from certain housekeeping requirements.

Rinse tanks that follow process tanks will gradually accumulate metals from the process tank solution still adhering to the parts or equipment. As discussed in Chapter 1, rinse tanks may be static (no automatic addition of water, no treatment of water to remove metals) where the metal concentration can build up or be part of the counter-flow system/counter-flow rinsing. Counter-flow rinsing is the process of utilizing multiple rinse tanks connected in series. Fresh water flows into the rinse tank located furthest from the process tank and overflows, in turn, to the rinse tanks closer to the process tank. This technique is called counter-flow rinsing because the work piece and the rinse water move in opposite directions. Over time, the first rinse becomes increasingly contaminated with drag-out. The second rinse tank has a lower concentration of hexavalent chromium compared to the first rinse tank. The more counter-flow rinse tanks, the lower the water flow needed for adequate removal of the process solution.

A rinse tank that is designed to be continuously refreshed or connected to an on-site water treatment system where the metals are removed would also be exempt from laboratory analysis of its tank solution. As the concentration may vary, periodic analysis of the tank solution or records of tank solution change-outs (e.g., photographs or work orders) may also be used to exempt a first rinse tank from the requirement of laboratory analysis of its tank solution. In general, since rinse tanks accumulate metals slower than stripping, etch, or electropolish tanks, the tank solution change out or testing interval required is at least once every 12 calendar months. However, if the hexavalent chromium concentration of the rinse tank increases where the rinse tank meets the definition of a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, the rinse tank would still be subject to the respective requirements regardless of the preventative maintenance undertaken.

The first rinse tank is the rinse tank that would rinse the part after it has been treated in a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. An assessment of subsequent rinse tanks would not be required as the potential accumulation of hexavalent chromium would be highest from the first rinse tank. If a rinse tank is a Tier I Hexavalent Chromium Tank, the subsequent rinse tank would be considered the first rinse tank, as it the first rinse tank following a Tier I Hexavalent Chromium Tank. South Coast AQMD may collect a sample of any tank to verify the concentration of hexavalent chromium to determine the applicable requirements.

Paragraph (o)(13) has been modified to clarify that the most recent source test is required to be kept on site, even if it is more than two years old. Most South Coast AQMD rules require records be kept on site for two years and maintained for five years. However, there are some source tests that may have been conducted more than five years ago (i.e., decorative chrome tank on 84-month schedules). PAR 1469 modifies the requirement to assist the owner, operator and South Coast AQMD verify the compliance status of various requirements by having the most recent source test of the applicable equipment on-site.

Reporting to Meet the Requirements of Rule 1469 – Subdivision (p)

Subdivision (p) specifies the reporting required to demonstrate compliance with Rule 1469 requirements. Other equipment or operations at the facility that are not related to chrome plating

would not be subject to the reporting requirements in PAR 1469. For example, paint coatings used for a paint spray booth independent from chrome plating would not be subject to PAR 1469 but may be subject to other rules for VOCs or other toxics. The title for this subdivision was revised to clarify the intent.

Subparagraph (p)(1)(A) has been modified to change the notification to the Executive Officer from 60 days to 14 days for a scheduled source test. This change still provides sufficient notice to the Executive Officer while allowing facilities additional flexibility as they can schedule source tests 14 days instead of 60 days ahead with their source testing contractors. This schedule is consistent with other South Coast AQMD recent rules. Notifications should be emailed to sourcetesting@aqmd.gov and should include the facility's South Coast AQMD ID number, date and time of scheduled source test, what permitted equipment will be tested, and contact information in case there are questions.

Subparagraph (p)(5)(A) has been modified to include additional information required by the Chrome ATCM that accompanies the initial reporting requirements for facilities that begin operations of tanks using a Trivalent Chromium Process.

Exemptions – Subdivision (r)

Subdivision (r) specifies exemptions for facilities or equipment subject to this rule from specific requirements of this rule.

Paragraph (r)(3) has been added to provide exemptions for roof openings during the installation of air pollution control equipment. This exemption incorporates the requirements specified in Rule paragraph (e)(9) which has been removed. The exemption limits the duration a temporary opening would be excluded from building enclosure requirements. This is to prevent circumvention of subdivision (e) (building enclosure requirements).

Paragraphs (r)(4), (r)(5), and (r)(6) have been added to exempt tanks subject to more stringent requirements from the existing requirements in Rule 1469.

Paragraph (r)(7) has been added to exempt facilities that have tanks using trivalent chromium process and do not have any Tier I, II, or III Hexavalent Chromium Tanks from housekeeping requirements intended to address material containing hexavalent chromium.

Conditional Requirements for Permanent Total Enclosure – Subdivision (t)

Subparagraph (t)(1)(A) has been modified to include references to the source test requirements of newly added paragraphs (k)(2) and (k)(3) for functional chrome plating facilities to meet the new emission requirements.

Phase out of Use of Hexavalent Chromium for Chromium Electroplating and Chromic Acid Anodizing Operations – Subdivision (v)

This subdivision has been added to implement the phase out of the use of hexavalent chromium required by the Chrome ATCM. This does not include the incidental formation of hexavalent chromium as a byproduct during plating or anodizing using trivalent chromium.

Paragraph (v)(1) prohibits new facilities conducting chromium electroplating or chromic acid anodizing using hexavalent chromium. This does not affect facilities that have permitted (i.e., permit to construct or permit to operate) equipment that uses hexavalent chromium for chromium electroplating or chromic acid anodizing.

Paragraph (v)(2) incorporates the Chrome ATCM requirement to phase out the use of hexavalent chromium for decorative chromium electroplating by January 1, 2030. The Chrome ATCM phases out the use of hexavalent chromium for decorative chromium electroplating by January 1, 2027, but allows for a longer phase out date (January 1, 2030), for facilities meeting building enclosure requirements. Rule 1469 requires facilities to meet building enclosure requirements currently. Therefore, it is appropriate to use the later phase out date for facilities within South Coast AQMD. A facility that violates building enclosure requirements would be in violation of the respective requirement, but would not be subject to a different phase-out date.

For facilities switching to non-hexavalent alternatives, the Chrome ATCM allows for an extension for the use of hexavalent chromium if the alternative technology takes additional time to procure or install. PAR 1469 allows for facilities to extend the use of hexavalent chromium from one year after the issuance of a permit to construct for the alternative equipment (up to January 1, 2031) if certain criteria are met. Facilities that are not replacing the decorative chromium electroplating tanks using hexavalent chromium with an alternative technology, such as trivalent chromium, would not be eligible for this extension.

A facility issued a permit to construct after January 1, 2029, would be eligible for an alternative phase out date to phase out from the use of hexavalent chromium, provided a complete application was submitted and notification was made to the Executive Officer in a timely manner. Further documentation is not required for an alternative phase out date to phase out from the use of hexavalent chromium.

A facility would be eligible for an alternative phase out date to phase out from the use of hexavalent chromium regardless to when the permit construct was issued, provided an extension to permit to construct was granted due to delays in implementing the alternative equipment.

A facility could use both compliance pathways. For example, if a facility has a permit to construct issued on July 29, 2029, for alternative technology, provided timely submissions are made, would be eligible for an alternative phase out date of one year from the issuance of the permit to construct at the latest. If the permit to construct is extended beyond the one year, then the phase out date could be delayed, provided the extension was due to delays in implementing the alternative equipment.

Paragraph (v)(3) incorporates the Chrome ATCM requirement to phase out the use of hexavalent chromium for functional chromium electroplating after January 1, 2039. The phase-out is dependent on two technology reviews. PAR 1469 references the Chrome ATCM in the event the date of the phase out is updated in the future. If a phase out is not required by the Chrome ATCM, PAR 1469 would not require a phase out of Hexavalent Chromium for the purposes of functional chrome plating.

Requirements for Facilities Undergoing Modifications – Subdivision (w)

This subdivision has been added to implement the requirements for any facility undergoing a Modification, as defined in subdivision (c), on or after January 1, 2024. This amendment incorporates the more stringent requirements of the Chrome ATCM for facilities that undergo a modification. This requirement is applicable to any facility that conducts a modification of a chromium electroplating tank using Hexavalent Chromium or chromic acid anodizing tank. Demonstration of the emission limit would be made with a source test conducted to meet the requirements of paragraph (k)(4). Periodic source tests every two calendar years would be required for functional chrome plating facilities while decorative chrome facilities would continue to follow the 60 or 84 month schedule specified in Table 3 of paragraph (k)(1).

New Requirements for Tier III Hexavalent Chromium Tanks at Functional Chrome Plating Facilities Beginning January 1, 2026 – Subdivision (x)

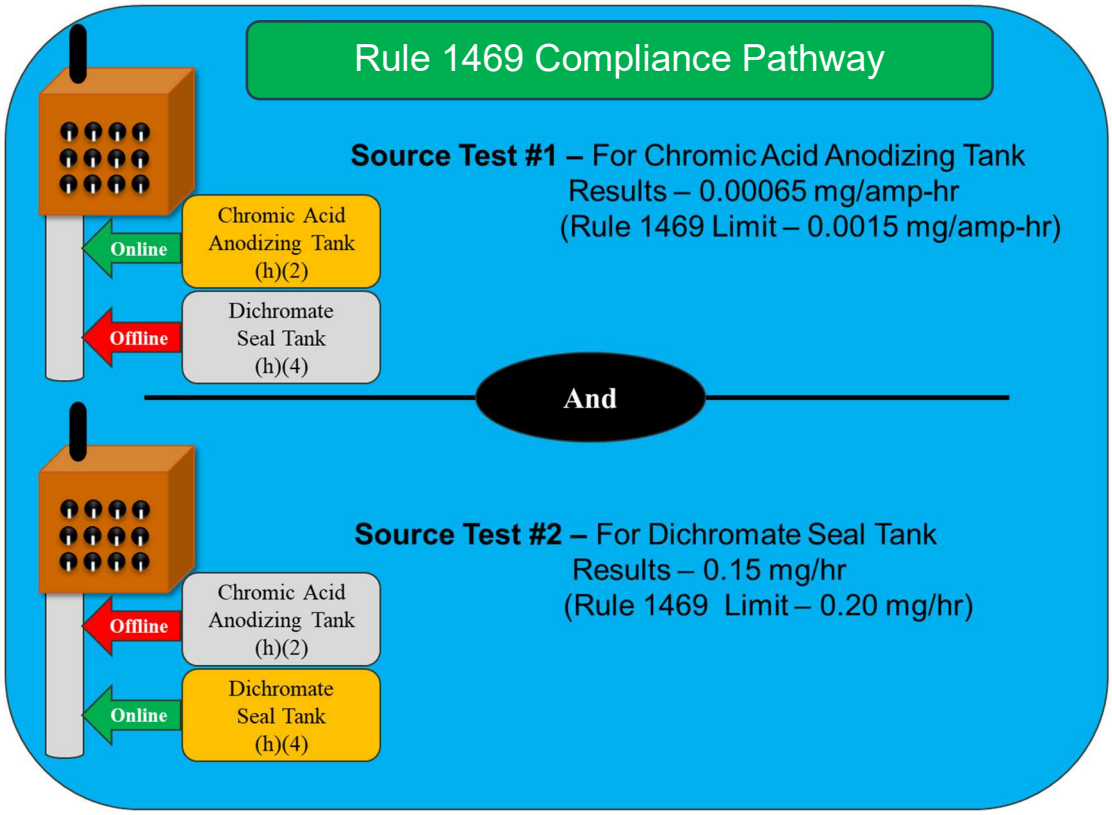
This subdivision has been added to implement the new requirements for Tier III Hexavalent Chromium Tanks at Functional Chrome Plating facilities. This amendment incorporates the more stringent requirements of the Chrome ATCM for this type of equipment.

Paragraph (x)(1) specifies the emission limit for chromium electroplating tanks using Hexavalent Chromium and chromic acid anodizing tanks. Demonstration of the emission limit would be through source test(s) conducted to meet the requirements of paragraph (k)(2). A tank used for both functional and decorative plating would be subject to these requirements, but a tank used exclusively for decorative plating using Hexavalent Chromium would not be subject to these requirements.

Paragraph (x)(2) specifies the emission limits for Tier III Hexavalent Chromium Tanks that are not subject to the requirements of paragraph (x)(1), such as chromium electroplating tanks using Hexavalent Chromium and chromic acid anodizing tanks. Demonstration of the emission limit would be made with the source test(s) pursuant to the requirements of paragraph (k)(2).

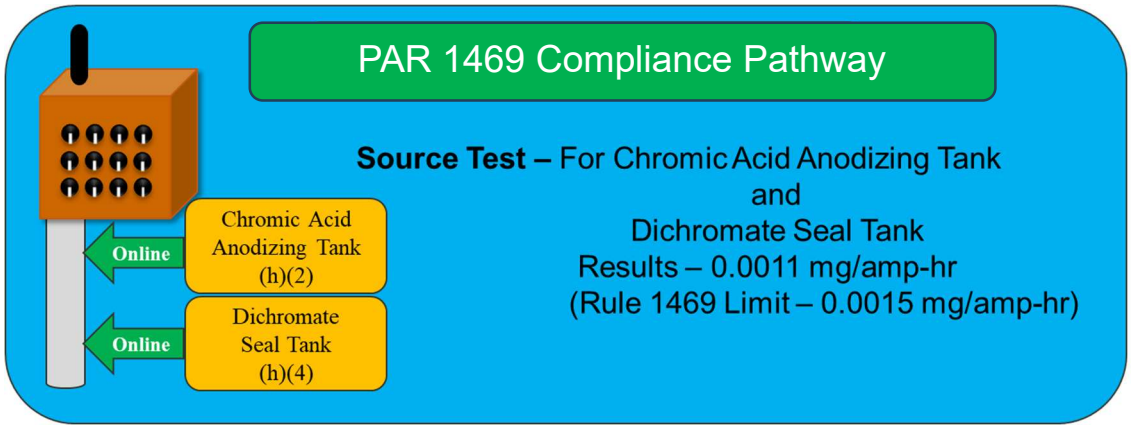
Paragraph (x)(2) lists different emission limits depending on the type of Tier III Hexavalent Chromium Tanks, and size and configuration of air pollution control device. Subparagraph (x)(2)(A) is for Tier III Hexavalent Chromium Tanks vented to the same air pollution control device as a chromium electroplating tank using Hexavalent Chromium or a chromic acid anodizing tank. While existing Rule 1469 allowed separate source tests for tanks subject to the emission limits specified in paragraphs (h)(2) and (h)(4). Figure 2-3 below shows an example how a facility with a single chrome plating tank (chromic acid anodizing tank) and a single Tier III non-plating tank (dichromate seal tank) controlled by the same air pollution control device currently could conduct two separate source tests to comply with Rule 1469.

Figure 2-3 – Example How Facility Could Conduct Source Tests Separately to Demonstrate Compliance with Existing Rule 1469



PAR 1469 would require the emission limit be based on all Tier III Hexavalent Chromium Tanks (and any Tier II electing to meet Tier III requirements by controlling emissions using air pollution control equipment) controlled by the shared add-on air pollution control device per the ATCM. Figure 2-4 below shows an example of how a source test must be conducted to comply with PAR 1469 in the same tank and air pollution control configuration as Figure 2-4.

Figure 2-4 – Example of PAR 1469 Compliance Pathway for a Tier III Tank Vented to Same Control as a Chrome Plating Tank

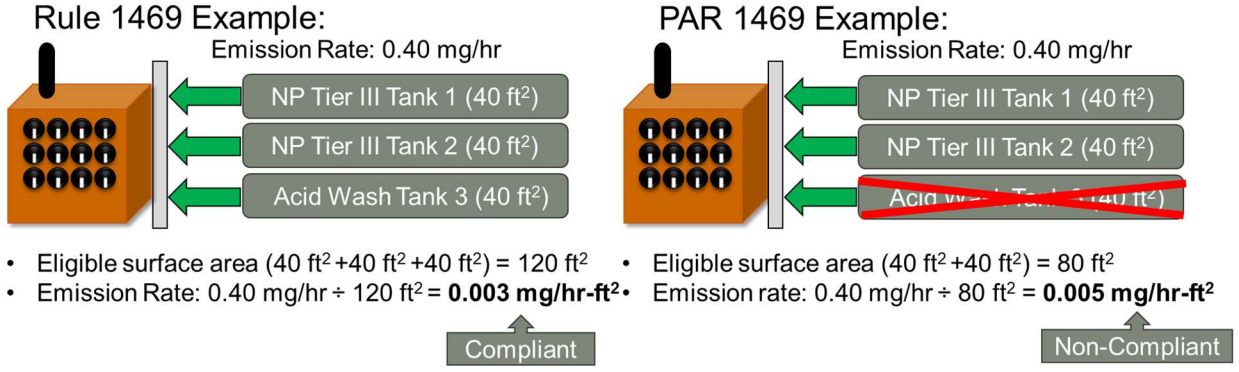


Rule 1469 also allows the compliance pathway shown in Figure 2-4 with a single source test (or sum up emission rates from multiple source tests) to demonstrate compliance with a single emissions limit. PAR 1469 only allows this compliance pathway. While PAR 1469 would result in fewer compliance pathways and a lower emission limit, an evaluation of source tests of Tier III Hexavalent Chromium Tanks subject to this requirement indicated that a minimal number of facilities may be impacted by this modification as most facilities conducted a source test consistent with Figure 2-4.

Subparagraphs (x)(2)(B) and (x)(2)(C) specifies the emission limits for Tier III Hexavalent Chromium Tank that is not vented to the same air pollution control device as a chromium electroplating tank using Hexavalent Chromium or a chromic acid anodizing tank, depending on the ventilation rate of the air pollution control equipment based on the manufacturer's specifications submitted to the South Coast AQMD. This information is included during the permitting process for evaluation and typically incorporated into the permit to operate for air pollution control equipment.

PAR 1469 and Rule 1469 has the same emission limit for a Tier III Hexavalent Chromium Tanks, excluding a Functional Chromium Plating Tank, equipped with air pollution control device with a maximum exhaust rate greater than 5,000 cubic feet per minute. However, the emission limit is calculated differently in PAR 1469. Rule 1469 bases the emission limit on the surface area of the tanks required to be controlled, which can include non-Hexavalent Chromium tanks such tanks as nitric acid or sulfuric acid tanks. PAR 1469 and the Chrome ATCM bases the emission limit only on the surface area of Tier II or Tier III Hexavalent Chromium Tanks controlled by the add-on air pollution control device. Figure 2-5 below illustrates a scenario where the emission rate of equipment would increase due to the exclusion of surface area from previously included tanks.

Figure 2-5 – Rule 1469 vs. PAR 1469 Calculations on Square Footage for Air Pollution Control Device with Exhaust Rate Greater than 5,000 Cubic Feet per Minute



Permits to Operate Subject to Emission Limit Requirements in Subdivision (x) – Subdivision (y)

Subdivision (y) has been added to ensure that the permit conditions, for equipment subject to the lower emission limit in PAR 1469, reflect the more stringent emission limit. As discussed, the Chrome ATCM established a new lower emission limit for functional chrome plating facilities. To implement this new requirement, PAR 1469 requires a permit update to reflect the new rule

requirements. This would include an engineering evaluation to verify compliance with the new lower emission limit. Fees would be assessed at rates consistent with Rule 301 – Permitting and Associated Fees.

Appendices

As discussed earlier, minor corrections have been made throughout the appendices for capitalization and references. The following provides an overview of the substantive edits made to the appendices.

Appendix 4 – Table 4-2 Additional Inspection and Maintenance Requirements of Tier I, Tier II, and III Hexavalent Chromium Tank(s)

Table 4-2 has been amended to exclude Tier I Hexavalent Chromium Tanks that do not have a heating element (e.g., burner, electrical heat coil) and not permitted to have a heating element from being required to install a temperature gauge. Temperature gauges are required on Tier I, Tier II, and Tier III Hexavalent Chromium Tanks, in order to verify the temperature of the tank. If a facility installs a heating element for Tier I Hexavalent Chromium Tank, the tank would no longer be eligible for this exclusion. In addition, a Tier I Hexavalent Chromium Tank may become a Tier II or Tier III Hexavalent Chromium Tank if heated above a certain temperature. Additionally, the frequency for slot velocity and push air measurements beginning [date of adoption] at Functional Chrome Plating facilities was added to align with amendments in subparagraph (m)(1)(B).

Inspection and maintenance requirements have been updated to reflect the applicable changes in requirements discussed throughout this chapter.

Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(9)

This appendix has been amended to allow a smoke test to be conducted using an alternative number of points, provided this alternative method is consistent with the most recently approved source test protocol. Due to the variety of sizes of a tank, the twelve-point matrix may not be necessary for a tank with a small surface area, where the measurement points would be minimally spaced apart. Consistent with other recent toxic rules, PAR 1469 would allow an appropriate alternate measurement procedure that has been reviewed and approved by South Coast AQMD. The evaluation and approval would occur during the assessment of a source test protocol for the tank. If an alternate measurement procedure is approved, the owner or operator may use either the specified twelve-point matrix or the alternate measurement procedure.

Appendix 10 – Tier II and Tier III Hexavalent Chromium Tank Thresholds

This appendix has been amended to reflect the new emission limits referenced in paragraph (x)(2). Item #4 requirements for hexavalent chromium concentration include clarification of verification options similar to the options available to verify the concentration of a rinse tank (discussed earlier).

Appendix 11 – Implementation Schedule

This appendix has been amended to reflect the implementation schedule of the new requirements required by the ATCM in paragraph (g)(1).

CHAPTER 3 – IMPACT ASSESSMENT

AFFECTED SOURCES

Based on South Coast AQMD permit database, and internet searches, there are a total of 72 facilities that conduct decorative chrome plating, hard chrome plating, or chromic acid anodizing.

EMISSIONS IMPACT

Impacts from Building Enclosure, Best Management Practices, and Enhanced Housekeeping

Based on an evaluation of best available information for facilities, all facilities subject to Rule 1469 already implemented practices and measures to reduce fugitive emissions of hexavalent chromium in the Chrome ATCM using building enclosure, best management practices, and enhanced housekeeping. PAR 1469 further clarifies the allowed methods to meet these requirements and actions needed to prevent the generation of fugitive emissions. By specifying the allowed methods, a decrease in fugitive emissions should occur as practices that may have led to generating more fugitive emissions are prohibited. While these provisions are intended to reduce fugitive emissions, quantifying the fugitive source emission reductions associated with these provisions is difficult as there are no source tests or other ways to measure the reductions. Monitoring data included in the 2018 Rule 1469 Final Staff Report demonstrated that ambient air concentrations of metals are reduced after the implementation of similar measures.

Impacts from Facility Modification

Functional Chrome Facilities would be subject to the same stringent emission limits if they elected to modify their operations or not. Discussion on Functional Chrome Facilities emission impacts is below.

Decorative Chrome Facilities using Hexavalent Chromium would be subject to the more stringent emission limits if they elected to modify their operations. It is not feasible to estimate the number of facilities that would elect to modify their operations. However, as Decorative Chrome Facilities using Hexavalent Chromium would be subject to a phase-out effective as earlier as January 1, 2030, it is unlikely for a Decorative Chrome Facility using Hexavalent Chromium to undergo a modification. No emission reduction is quantified from these requirements.

Impacts from More Stringent Emission Limit for Functional Chrome Facility

Despite requiring functional chrome tanks to meet a more stringent emission limit of 0.00075 mg/amp-hr compared to the current Rule 1469 emission limit of 0.0015 mg/amp-hr (or 0.0011 mg/amp-hr for facilities that begun operations after October 24, 2007, and before the anticipated date of rule adoption), all of these facilities are expected to comply without the need to modify or install additional control equipment based on evaluation of available source test records and feedback from affected facilities. As it is expected that all facilities will be able to meet the more stringent emission limit of 0.00075 mg/amp-hr without modification to control equipment, no emission reduction is expected.

Phase Out of Use of Hexavalent Chromium at Decorative Chrome and Functional Chrome Facilities

By 2030, 26 decorative chromium electroplating facilities would be required to phase out their use of hexavalent chromium for decorative chromium electroplating. Assuming no change to the Chrome ATCM phase out date for functional chrome by 2039, 42 facilities would be required to phase out the use of hexavalent chromium for hard chromium electroplating and chromic acid

anodizing operations by 2039. Table 3-1 shows the distribution of affected facilities by county. Four facilities are excluded from Table 3-1 because they only use trivalent chromium for decorative electroplating.

Estimated emission reductions of hexavalent chromium from the phase out of its use for both decorative and functional chrome were calculated based on CARB data for all affected facilities in California. There were 51 decorative and 62 functional chrome plating facilities required to phase out hexavalent chromium in California that were identified by CARB on *Table IX.4 Approximate Number of Facilities by Type* in the Initial Statement of Reasons (staff report).[9] There are 26 decorative chrome plating facilities in South Coast AQMD comprising 51% of those in California. There are 42 functional chrome plating facilities in South Coast AQMD comprising 67.7% of those in California. Table 3-1 shows the distribution of affected facilities by county.

Table 3-1 - Number of Facilities Phasing Out Hexavalent Chromium by County

County	Phase Out of Use of Hexavalent Chromium	
	Decorative Chromium Electroplating Facilities by January 1, 2030	Functional Chrome Plating Facilities by January 1, 2039*
Los Angeles	18	30
Orange	7	11
Riverside	1	1
San Bernardino	0	0
Total	**26**	**42**

* Two technology assessments by CARB staff to be completed by 2032 and 2036, based on these reviews, CARB staff may recommend amendments to the phase out dates

The Sstaff Rreport for CARB Chrome ATCM,[9] included an estimation on the annual emission reductions for the entire state summarized below:

- Decorative chrome plating – 1.3 lbs/year
- Functional chrome plating – 8.8 lbs/year

Based upon CARB's estimated reductions and the share of facilities located in South Coast AQMD, it is estimated a maximum reduction of 0.66 lbs/year of hexavalent chromium (1.3 lbs/year x 51% located in South Coast AQMD) could be achieved from the phase out of decorative chrome plating.

For functional chrome plating, based upon CARB's estimated reductions of hexavalent chromium from the phase out for the functional chrome plating operations and the share of facilities located in South Coast AQMD, it is estimated there would be a reduction 5.9 lbs/year (8.8 lbs/year x 67.7%) located in South Coast AQMD) due to the phase out for functional chrome plating.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1469) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption ~~will be~~has been prepared pursuant to CEQA Guidelines Section 15062, and if the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

SOCIOECONOMIC IMPACT ASSESSMENT

On March 17, 1989, the South Coast Air Quality Management District (South Coast AQMD) Governing Board adopted a resolution which requires an analysis of the socioeconomic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Sections 40440.8 and 40728.5 require a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. Thus, this Socioeconomic Impact Assessment has been prepared in accordance with Health and Safety Code and South Coast AQMD Governing Board requirements. Lastly, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes Best Available Retrofit Control Technology (BARCT) or "all feasible measures" requirements relating to emissions of ozone, carbon monoxide (CO), sulfur oxides (SOx), nitrogen oxides (NOx), volatile organic compounds (VOC), and their precursors. Because the focus of PAR 1469 is to control and reduce emissions of hexavalent chromium, a toxic air contaminant, and not criteria pollutants or their precursors, a cost-effectiveness analysis is not required and has not been prepared.

Introduction

Rule 1469 addresses hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. Health and Safety Code Section 39666 mandates the South Coast AQMD to implement CARB's ATCMs or adopt equally effective or even more stringent rules. In 2023, CARB amended the Chrome ATCM to phase out the use of hexavalent chromium in decorative and functional chrome plating operations and PAR 1469 aims to incorporate its more stringent requirements accordingly. Additionally, PAR 1469 includes clarifications for existing requirements, changes to source test document submittal deadlines, a new best management practice, and procedures that assist in rule implementation. Upon full implementation, PAR 1469 is projected to reduce hexavalent chromium emissions by approximately 6.56 pounds per year, based on CARB's annual emission reduction estimates.

Because CARB previously analyzed the compliance costs associated with implementing the requirements in the Chrome ATCM in its Standardized Regulatory Impact Assessment (SRIA) and Staff Report: Initial Statement of Reasons (ISOR)[11,12], this Socioeconomic Impact Assessment analyzes a range of probable compliance costs of implementing only the new provisions in PAR 1469 which are not related to the Chrome ATCM for the affected facilities and industries, including small-businesses. It is important to note, however, that for some provisions taken directly from the

[11] California Air Resources Board. (2022). Standardized Regulatory Impact Analysis. https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2023/chromeatcm2023/isor_appc-1.pdf.

[12] California Air Resources Board. (2022). Staff Report: Initial Statement of Reasons.https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2023/chromeatcm2023/isor.pdf.

Chrome ATCM and included in PAR 1469, such as the permit requirements set forth in subdivision (y) and the hexavalent chromium-containing waste material storage requirements set forth in paragraph (f)(5) of PAR 1469, the compliance costs for these specific provisions were not delineated from the overall cost analysis in CARB's SRIA and ISOR for the Chrome ATCM. Thus, while CARB already accounted for these costs when adopting the Chrome ATCM, for informational purposes, this Socioeconomic Impact Assessment also includes and analyzes the portion of the compliance costs that are attributable to the Chrome ATCM which are incorporated into PAR 1469.

Legislative Mandates

The legal mandates directly related to the Socioeconomic Impact Assessment of PAR 1469 include South Coast AQMD Governing Board resolutions and various sections of the Health and Safety Code.

South Coast AQMD Governing Board Resolution

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution that requires an analysis of the economic impacts associated with adopting and amending rules and regulations which consider all of the following elements:

- Affected industries;
- Range of probable costs;
- Cost-effectiveness of control alternatives; and
- Public health benefits.

Health and Safety Code Requirements

The state legislature adopted legislation which reinforces and expands the South Coast AQMD Governing Board resolution requiring socioeconomic impact assessments for rule development projects. Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations."

To satisfy the requirements in Health and Safety Code Section 40440.8, the scope of the analysis should include all of the following information:

- Type of affected industries;
- Impact on employment and the regional economy;
- Range of probable costs, including those to industry;
- Availability and cost-effectiveness of alternatives to the rule;
- Emission reduction potential; and
- Necessity of adopting, amending, or repealing the rule in order to attain state and federal ambient air quality standards.

However, since the focus of PAR 1469 is to reduce emissions of hexavalent chromium emission, a toxic air contaminant, a cost-effectiveness analysis was not conducted because it is not required by Health and Safety Code Section 40440.8. Additionally, the estimated annual cost of PAR 1469 is less than one million dollars, which is less than the threshold at which the macroeconomic

modeling tool provides reliable employment impact estimates. Therefore, a job impact analysis was not conducted.

Health and Safety Code Section 40728.5 requires the South Coast AQMD Governing Board to: 1) actively consider the socioeconomic impacts of regulations; 2) make a good faith effort to minimize adverse socioeconomic impacts; and 3) include small business impacts. To satisfy the requirements in Health and Safety Code Section 40728.5, the socioeconomic impact assessment should include the following information:

- Type of industries or business affected, including small businesses; and
- Range of probable costs, including costs to industry or business, including small business.

Finally, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes BARCT or "all feasible measures" requirements relating to emissions of ozone, CO, SOx, NOx, VOC, and their precursors. Because the focus of PAR 1469 is to control and reduce emissions of hexavalent chromium, a toxic air contaminant, and not criteria pollutants or their precursors, a cost-effectiveness analysis is not required and has not been prepared.

Affected Facilities and Industries

Implementation of PAR 1469 would affect approximately 72 facilities in the South Coast AQMD jurisdiction with 51 facilities in Los Angeles County, 19 facilities in Orange County, two facilities in Riverside County and zero facilities in San Bernardino County. Table 3-2 presents the distribution of the affected facilities across various industrial sectors under the North American Industrial Classification System (NAICS). As summarized in the table, 92 percent of the affected facilities are from the Fabricated Metal Product Manufacturing industry (NAICS 332), followed by six percent of the facilities from the Transportation Equipment Manufacturing industry (NAICS 336). Other affected industries include Computer and Electronic Product Manufacturing (NAICS 334) and Repair and Maintenance (NAICS 811), each accounting for roughly one percent of the affected facilities.

Table 3-2 - Affected Facilities by Industry

NAICS	Industry Name	Number of Facilities	Percentage of Facilities
332	Fabricated metal product manufacturing	66	92%
336	Transportation Equipment Manufacturing	4	6%
334	Computer and Electronic Product Manufacturing	1	1%
811	Repair and maintenance	1	1%
Total		**72**	**100%**

Small Business Analysis

The South Coast AQMD defines a "small business" in Rule 102 for purposes of fees as one which employs 10 or fewer persons and which earns less than $500,000 in gross annual receipts. The

South Coast AQMD also defines "small business" for the purpose of qualifying for access to services from the South Coast AQMD's Small Business Assistance Office as a business with an annual receipt of $5 million or less, or with 100 or fewer employees. In addition to the South Coast AQMD's definition of a small business, the United States (U.S.) Small Business Administration and the federal 1990 Clean Air Act Amendments (1990 CAAA) each have their own definition of a small business.

The 1990 CAAA classifies a business as a "small business stationary source" if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either VOC or NOx; and 3) is a small business as defined by the U.S. Small Business Administration. Based on firm revenue and employee count, the U.S. Small Business Administration definition of a small business varies by six-digit NAICS codes.[13] The majority of facilities affected by PAR 1469 are within the Electroplating, Plating, Polishing, Anodizing and Coloring industry (NAICS 332813). According to the U.S. Small Business Administration, businesses in this industry with fewer than 500 employees are classified as small businesses.

South Coast AQMD mostly relies on Dun and Bradstreet data to conduct small business analyses for private companies. In cases where the Dun and Bradstreet data are unavailable or unreliable, other external data sources such as Manta, Hoover, LinkedIn, and company website data will be used. The determination of data reliability is based on data quality confidence codes in the Dun and Bradstreet data as well as staff's discretion. Revenue and employee data for publicly owned companies are gathered from Securities and Exchange Commission (SEC) filings. Since subsidiaries under the same parent company are interest-dependent, the revenue and employee data of a facility's parent company will be used for the determination of its small business status.

Employment and revenue estimates from 2024 Dun and Bradstreet data as well as other external sources are available for 71 of the 72 affected facilities. Note that although the employment and revenue data for some facilities are unknown or missing, the current data used for this small business analysis represents the most thorough and accurate information obtainable as of the date of this ~~Draft~~ Staff Report. Table 3-3 presents the number of affected facilities that qualify as small businesses, based on each of the four small business definitions. For the 71 facilities with available employment and revenue data, up to 68 of them may qualify as small businesses. Note that only 39 of the 71 facilities have reported their annual VOC or NOx emissions to South Coast AQMD, of which 27 facilities qualify as small businesses, based on the 1990 CAAA definition.

Table 3-3 - Number of Small Business Based on Various Definitions

Small Business Definition	Number of Facilities
South Coast AQMD Rule 102	12
South Coast AQMD Small Business Assistance Office	61
U.S. Small Business Administration	68
1990 CAAA	27

[13] U.S. Small Business Administration. (2023). Small Business Size Standards. https://www.sba.gov/document/support-table-size-standards.

Compliance Costs

CARB's SRIA for the Chrome ATCM conducted a detailed cost analysis for the phase out of hexavalent chromium, including trivalent chromium equipment and installation, hazardous waste disposal, permit application, source testing, operation and maintenance (O&M) for this equipment. It is important to note, however, that for some provisions taken directly from the Chrome ATCM and included in PAR 1469, such as the permit requirements set forth in subdivision (y) and the hexavalent chromium-containing waste material storage requirements set forth in paragraph (f)(5) of PAR 1469, the compliance costs for these specific provisions were not delineated from the overall cost analysis in CARB's SRIA and ISOR for the Chrome ATCM. While the Chrome ATCM includes requirements for both permit fees and the storage of hexavalent chromium-containing waste, these costs in the SRIA and ISOR are generally described without providing specific values by air district.

In particular to PAR 1469, 42 functional chrome plating facilities will be required to pay one-time permit application fees in order to update their permits to reflect revised emission limits. Additionally, all 42 functional chrome plating facilities and 26 decorative chrome plating facilities will be required to store hexavalent chromium-containing waste in a designated storage area to prevent spills and other accidental releases, which may be achieved through enclosed storage equipment or physical barriers within a building enclosure.

Thus, while CARB already accounted for these costs when adopting the Chrome ATCM, for informational purposes, this Socioeconomic Impact Assessment also includes and analyzes the portion of the compliance costs that are attributable to the Chrome ATCM which are incorporated into PAR 1469.

The following sections present the estimated one-time permit application costs, waste storage equipment-related costs, and total compliance costs related to these requirements for PAR 1469, as well as new requirements that are not in the Chrome ATCM that may result in minimal to no costs. All dollar amounts are presented in 2024 U.S. dollars.

Permit Application Fees for Change of Condition

PAR 1469 contains a provision which requires all existing functional chrome plating facilities to submit one-time permit applications to update their permits to reflect the revised emission limits. Within South Coast AQMD jurisdiction, there are 42 functional chrome facilities comprised of 21 hard chrome plating facilities and 21 chromic acid anodizing facilities that are subject to PAR 1469 which contains a provision which requires all existing functional chrome plating facilities to submit one-time permit applications to update their permits to reflect the revised emission limits. The number of permit applications to be submitted will vary by facility type. For example, each hard chrome plating facility is anticipated to submit seven permit applications, on average, while each chromic acid anodizing facility is anticipated to submit three permit applications on average. In total, 210 permit applications are expected across all functional chrome facilities. The fees for these permit applications are subject South Coast AQMD Rule 301 – Permitting and Associated

Fees, Schedule C.[14] Specifically, the fee rates are outlined in Table Fee Rate-A for fiscal year (FY) 2025-26, which details the permit fees for processing, changes of conditions, and alterations or modifications. In general, the application fee for change of condition is $3,393 per application unless the facility qualifies as a small business as defined in Coast AQMD Rule 102 or is subject to the South Coast AQMD's Title V program as set forth in Regulation XXX – Title V Permits. The fee rate for any facility qualifying as small business as set forth in Rule 102 will be reduced by 50 percent (e.g. $1,696.54 per application) while the fee rate for each Title V facility is $4,252 per application. Of the 42 functional chrome facilities subject to PAR 1469, three facilities qualify as small businesses as defined in Rule 102 small business and two facilities are subject to the Title V program. Based on the applicable fee rates, the total one-time permit application fees for all 42 functional chrome facilities are estimated to be approximately $682,070.

Hexavalent Chromium-Containing Waste Storage

Under PAR 1469, all existing functional and decorative chrome plating facilities that use hexavalent chromium for electroplating or chromic acid anodizing are required to store hexavalent chromium-containing waste in a designated enclosed storage area. These facilities periodically perform tank changeouts by discarding the tank solutions that contain hexavalent chromium and use water to clean the tanks, creating more liquid waste. The waste generated from the infrequent changeout events could either be stored temporarily at the facility until being removed by waste disposal contractors or be immediately pumped out and removed by a vacuum truck. Some facilities may store the large volume of waste generated from changeout events temporarily outdoors or within a building enclosure that is not exclusively designated for storage. This waste is subject to the new Chrome ATCM storage requirements. PAR 1469 includes two compliance options via either an enclosed storage area or by creating physical barrier, as a means to satisfy the requirements in the Chrome ATCM.

Enclosed Storage Area

The use of an enclosed storage area to store closed containers of waste, typically a dedicated storage room, is one way to satisfy the Chrome ATCM. A facility may use enclosed hard-top containers as the enclosed storage area, and these containers can be located either inside a building enclosure or outdoors. Each container costs approximately $5,500, including a 10 percent sales tax, and has an estimated useful life of 15 years based on vendor feedback. Minor assembly costs are estimated at $50 per container, and delivery costs are approximately $500 per facility. Half of the 68 affected facilities (or 34 facilities) are assumed to choose this option, with each facility purchasing three containers capable of accommodating up to six intermediate bulk containers (275-gallon totes). The total cost for creating an enclosed storage area at 34 facilities, including container purchase, installation, and delivery is estimated at $583,100.

Physical Barrier

Alternatively, affected facilities may use portable physical screen barriers to isolate a designated storage area up to 20 feet wide by 20 feet long, within a building enclosure to prevent spills and other accidental releases. Each screen has the dimensions of six feet by 10 feet and is estimated to cost $226, including a 10 percent sales tax. Each screen is expected to have a useful life of 15

[14] South Coast AQMD. (2025). *Rule 301 – Permitting and Associated Fees, Table Fee Rate-A. FY 2025-26 and thereafter, Summary Permit Fee Rates – Permit Processing, Change of Conditions, Alteration/Modification*, p. 68, https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-301.pdf.

years. The delivery cost is estimated at $500 per facility. If 34 facilities elect to use physical barriers, each will need to purchase eight barriers. The total estimated cost of the barriers plus delivery is estimated at $78,472.

Although all 68 facilities would be expected to incur cost impacts for the new waste storage requirements, some of these facilities may already have existing enclosed storage areas to store waste generated from changeout events that would be adequate to satisfy the Chrome ATCM requirements. Instead of storing the tank solution waste onsite, some facilities may elect to have the tank waste pumped out and removed via a vacuum truck, which may result in minimal additional costs during these changeout events. Also, some decorative chrome plating facilities might not have another changeout event prior to the phase out in 2030. Although there are scenarios where the incremental cost to comply with the new waste storage requirements is minimal, the number of facilities that could comply with these less costly alternatives is uncertain. Thus, the analysis assumes the worst-case, e.g., all 68 impacted facilities would incur the estimated cost impacts associated with the new waste storage requirements, which would result in a total one-time cost of approximately $662,000.

PAR 1469 Requirements with Minimal to No Costs

PAR 1469 includes an additional requirement to use wet wiping and HEPA vacuuming to clean the roof surfaces prior to roof cutting activities. Requiring wet wiping is expected to incur minimal to no additional cost as using multiple cleaning methods is a common practice prior to conducting roof cutting activities.

PAR 1469 includes additional labeling requirements for tanks when a permit application seeking to change the parameters that the tank(s) proposed to be operated at is submitted to the South Coast AQMD for evaluation. No cost is attributed to this requirement because the additional labeling requirement in PAR 1469 simply memorializes an existing practice where facilities periodically replace their labels due to wear and tear.

PAR 1469 also includes a prohibition from walking or standing on containment devices unless specific conditions are met (e.g., cleaning). No cost is attributed to this requirement as this is more a preventative measure since employees at the affected facilities do not routinely walk or stand on containment devices for safety reasons. The requirement to maintain all Containment Devices, which are used to satisfy the requirements of paragraph (g)(1) and keep them clear of all objects is also for safety reasons. As such, minimal to no incremental costs are expected.

Total Compliance Costs of PAR 1469

The total compliance costs of PAR 1469 include all of the estimated costs over a 15-year forecast period, from 2025 to 2039. To calculate the present value of the total compliance costs, all of the annual compliance costs were discounted to 2025, the anticipated first year the requirements in PAR 1469 will go into effect. Table 3-4 presents the average annual of the amortized costs from 2025-2039 and the present value of the costs discounted to 2025. The total present value of the amortized compliance cost of PAR 1469 is estimated to be $1,649,861 and $1,323,953 at one percent and four percent discount rates, respectively. The average annual compliance cost is estimated to range from $95,713 to $115,162 at a one percent to four percent real interest rate, respectively.

Table 3-4 - Estimated Compliance Costs of PAR 1469

Cost Categories	Present Worth Value (2025)		Average Annual (2025-2039)	
	1 Percent Discount Rate	4 Percent Discount Rate	1 Percent Real Interest Rate	4 Percent Real Interest Rate
Permitting Fees - Functional: Hard Chrome	$542,807	$428,212	$32,913	$39,349
Permitting Fees - Functional: Chromic Acid Anodizing	$256,565	$202,400	$15,557	$18,599
Waste Storage: Physical Barrier Pathway Equipment	$79,026	$64,424	$4,390	$5,316
Waste Storage: Physical Barrier Pathway Delivery	$21,854	$17,816	$1,214	$1,470
Waste Storage: Enclosed Storage Area Pathway Equipment	$721,197	$587,939	$40,061	$48,516
Waste Storage: Enclosed Storage Area Pathway Delivery	$21,854	$17,816	$1,214	$1,470
Waste Storage: Enclosed Storage Area Pathway Assembly	$6,556	$5,345	$364	$441
Total	**$1,649,861**	**$1,323,953**	**$95,713**	**$115,162**

Macroeconomic Impacts on the Regional Economy

Regional Economic Models, Inc. (REMI) developed the Policy Insight Plus Model (PI+ v3) is a tool that South Coast AQMD typically uses to assess the impacts of rule development projects on the job market, prices, and other macroeconomic variables in the region when the average annual compliance cost is greater than one million current U.S. dollars ($1 MM).[15] However, when the average annual compliance cost of a project is less than $1 MM, the model cannot reliably determine the macroeconomic impacts, because resultant impacts from the project would be too small relative to the baseline economic forecast.

Since the total average annual compliance cost of PAR 1469 is estimated to range from $95,713 to $115,162, at a one percent to four percent real interest rate, respectively, which is less than the $1 MM threshold, a macroeconomic impact analysis has not been conducted for PAR 1469.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity,

[15] Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3. 2023.

authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the S~~s~~taff R~~r~~eport.

Necessity
PAR 1469 is needed to reduce emissions of hexavalent chromium from chromium electroplating and chromic acid anodizing operations and to incorporate the more stringent requirements found in CARB Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations.

Authority
The South Coast AQMD Governing Board has authority to adopt PAR 1469 pursuant to Health and Safety Code Sections 39002, 39650 *et. seq*., 40000, 40440, 40441, 40702, 40725 through 40728, 41508, and 41700.

Clarity
PAR 1469 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency
PAR 1469 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication
PAR 1469 will not impose the same requirements as or in conflict with any existing state or federal regulations (except that it implements Chrome ATCM provisions). The proposed amended rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference
By adopting PAR 1469, the South Coast AQMD Governing Board will be implementing, interpreting or making specific the provisions of the Health and Safety Code Sections 39666 (airborne toxic control measures), 41700 (nuisance), and federal Clean Air Act Section 112 (Hazardous Air Pollutants) and Section 116 (Retention of State authority).

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed amended rule requirements with those of any federal or District rules and regulations applicable to the same equipment or source category.

The following regulations are compared to PAR 1469 in this analysis:

- Federal – National Emission Standards for Hazardous Air Pollutant Emissions: Hard and Decorative Chromium Electroplating and Chromium Anodizing (NESHAP)
- State – Airborne Control Toxic Measures for Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Facilities (ATCM)

Rule Element	PAR 1469	ATCM	NESHAP
Building Enclosures – Tier I, II, and III Hexavalent Chromium Tanks	Only operate a Tier I, Tier II or Tier III Hexavalent Chromium Tank within a Building Enclosure that is designed to minimize fugitive emissions	Same as PAR 1469	None Specified
Housekeeping – Chemicals that may contain hexavalent chromium	Store in closed container and in Enclosed Storage Area	Same as PAR 1469	Store in closed container in enclosed storage area or building
Housekeeping – Spills	Contain or clean spills	Same as PAR 1469	Same as PAR 1469
Housekeeping – Routine Cleaning	Weekly cleaning	Weekly cleaning	Weekly Cleaning

Rule Element	PAR 1469	ATCM	NESHAP
Housekeeping – Wastes	• Keep containers with chromium-containing waste closed except when being filled or emptied; • Store containers with hexavalent chromium-containing waste in an Enclosed Storage Area or in a designated storage area using physical barriers within a building enclosure	• Keep containers with chromium-containing waste closed except when being filled or emptied; • Store containers with chromium-containing waste in an Enclosed Storage Area	Chromium or chromium-containing waste maintained to not lead to fugitive dust and in accordance with hazardous waste requirements
Housekeeping – Buffing, Grinding, or Polishing Areas	• Clean using approved cleaning methods 20 ft of workstations on days operations occurred	• Clean using approved cleaning methods 20 ft of workstations at end of day operations occurred	None Specified
Housekeeping – Other	• Eliminate fabric floors from tank process area • Minimize emissions due to roof cutting • Maintain HEPA vacuum	None Specified	None Specified
Best Management Practices – Dragout from Automated Lines	• Install Containment Device between Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) and its adjacent tank and return dragout back to a tank • Cleaned weekly with no visible accumulation	• Drip tray or other containment devices between Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) such that liquid does not fall through space between tanks and returns to a tank • Cleaned weekly with no visible accumulation	Bath solutions maintained by one of the following: • Install drip trays to collect and return any bath solution • Contain and return to the tank any bath solution • Collect and treat in an onsite wastewater treatment plant any bath solution

Rule Element	PAR 1469	ATCM	NESHAP
Best Management Practices – Dragout from Non-automated Lines	• Install Containment Device or not allow dragout to drip outside a Tier I, Tier II, Tier III Hexavalent Chromium Tank or Associated Process Tank • Cleaned weekly with no visible accumulation	• Chromic Acid is not dripped outside the tank, unless the liquid is captured and returned to the tank • Cleaned weekly with no visible accumulation	One of the following: • Drip trays to return solution to tank • Contain and return the solution into tank • Collect and treat using onsite wastewater treatment plant
Best Management Practices – Spray Rinsing	• Not spray rinse parts or equipment that have chromium-containing liquid unless: o Parts are lowered in a tank o Utilize low pressure spray nozzle o Install a splash guard at the tank and liquid returns to the tank	Same as PAR 1469	• Minimize overspray when rinsing parts or equipment that have chromium-containing liquid by utilizing a splash guard
Best Management Practices – Labeling	• Label parameters and pending parameters for each: o Tier I, II, and Tier III Hexavalent Chromium Tanks o Trivalent Chromium containing tanks	• Label parameters for each: o Tier I, II, and Tier III Hexavalent Chromium Tanks o Trivalent Chromium containing tanks	None specified
Best Management Practices – Buffing Grinding	• Separate buffing, grinding, polishing, and compressed air cleaning/drying from tanks electroplating or anodizing operation	Same as PAR 1469	• Separate buffing, grinding, or polishing from electroplating or anodizing operation
Add-on Air Pollution Control Devices and Emission Standards: Tier	• Decorative plating tank (hexavalent) o 0.0015 mg/amp-hr o 0.0011 (former new) • Modified facilities – chrome plating tanks	• Decorative plating tank (hexavalent) o Same as PAR 1469 • Modified facilities – chrome plating tanks o Same as PAR 1469	If not complying using chemical fume suppressants • 0.006 mg/dscm

Rule Element	PAR 1469	ATCM	NESHAP
III Tank Requirements	○ 0.00075 mg/amp-hr Function plating facility (2026) • Functional chrome plating tank ○ 0.00075 mg/amp-hr • Other Tier III Hexavalent Chromium Tank: ○ 0.00075 mg/amp-hr, if also connected to APCD venting a chrome plating tank ○ 0.20 mg/hr, if connected to: ▪ APCD with a maximum exhaust rate of 5,000 cfm or less; or ▪ Add-on nonventilated air pollution control device ○ 0.004 mg/hr-ft^2, if connected to an APCD with an exhaust rate of greater than 5,000 cfm. ▪ Based on the tank surface area of all Tier II and Tier III Hexavalent Chromium Tanks	Function plating facility (2026) • Functional chrome plating tank ○ Same as PAR 1469 • Other Tier III Hexavalent Chromium Tank: ○ Same as PAR 1469	○ New affected sources (hard, decorative, anodizing) • 0.007 mg/dscm ○ Decorative plating tank ○ Anodizing tank • 0.011 mg/dscm ○ Hard chrome plating tank at large facility • 0.015 mg/dscm ○ Hard chrome plating tank at small facility • Other Tier III Hexavalent Chromium Tank: ○ None Specified
Add-on Air Pollution Control Devices and Emission Standards: Tier II Tank Requirements	• Utilize a physical control method; or • Meet the Tier III Tank emission limit requirements	Same as PAR 1469	None Specified
Add-on Air Pollution Control Devices and Emission	Operate air pollution control techniques at the applicable minimum hood induced capture velocity	None Specified	None Specified

Rule Element	PAR 1469	ATCM	NESHAP
Standards: General			
Source Test Requirements for Functional Chrome Facility:	• At least 60 days before the first source test submit: o Previously approved source test protocol; and o Addendum identifying change(s) in operation or procedures to meet new emission limits • First Source Test: o No later than January 1, 2026 o Source test conducted in 2024 or 2025 • Subsequent test: o Every two calendar years • Notify South Coast AQMD at least 14 days before the scheduled source test	• At least 60 days before the source test submit: o Submit source test protocol • Initial Source Test: o Same as PAR 1469 • Subsequent test: o Same as PAR 1469 • Notify the District at least 60 days before the scheduled source test	• Source test protocol submittal not required o Use listed test methods • Initial Source Test: o Prior to beginning operations o Only if not using a chemical fume suppressant • Subsequent test: o None Specified • No prior notification for the scheduled source test required
Source Test Requirements for Decorative Chrome Facility	• At least 60 days after initial start-up of new or modified air pollution control technique submit source test protocol • Initial Source Test: o No later 120 days after approval of protocol • Subsequent source tests: o Every 60 months for facilities permitted for more than 1,000,000 ampere-hours per year o Every 84 months for facilities permitted for less than or equal to 1,000,000 ampere-hours	None Specified	• Source test protocol submittal not required o Use listed test methods • Initial Source Test: o Prior to beginning operations o Only if not using a chemical fume suppressant • Subsequent test: o None Specified

Rule Element	PAR 1469	ATCM	NESHAP
	○ May be demonstrated with an emission screen		• No prior notification for the scheduled source test required
Source Test: Procedures	Each source test conducted: • Pursuant to an approved method and approved source test protocol • Demonstrates ventilation velocities specified in *A Manual of Recommended Practice for Design* or alternative design criteria and ventilation velocities approved by the Executive Officer • Smoke test for all applicable tanks	Each source test conducted: • Pursuant to an approved method and approved source test protocol • Smoke tests for chrome tank covers	Each source test conducted: • Pursuant to listed test methods • No smoke tests required
Wetting Agent Chemical Fume Suppressants (Hexavalent Chromium Tanks)	• Not add PFOS-based fume suppressant to any chromium electroplating or chromic acid anodizing bath • Surface tension below: ○ 40 dynes/cm (stalagmometer) ○ 33 dynes/cm (tensiometer) • Chemical fume suppressant certified by the Executive Officer based on a certification process	• Use a listed chemical fume suppressant • A non-listed chemical fume suppressant may be used if: ○ Approved by the Executive Officer ○ Does not contain PFAS or PFAS compound ○ Meets 0.01 mg/amp-hr when surface tension did not exceed ▪ 45 dynes/cm (stalagmometer) ▪ 35 dynes/cm (tensiometer)	• Not add PFOS–based fume suppressant • Surface tension of the electroplating or anodizing bath shall not exceed: ○ 40 dynes/cm (stalagmometer) ○ 33 dynes/cm (tensiometer)
Parameter Monitoring: Pressure Air Flow	• Monitor the add-on air pollution control device with mechanical gauges measuring the applicable pressures and air flows	• Monitor pressure drop and inlet velocity	Daily pressure drop and inlet velocity monitoring and recording
Add-On Air Pollution Control Device Periodic	• Conduct slot velocity measurement and smoke test every 365 days since the last source test	None Specified	None Specified

Rule Element	PAR 1469	ATCM	NESHAP
Parameter Monitoring	• Shut down a tank due to a failing test until appropriate collection is demonstrated		
Parameter Monitoring: Surface Tension	• Measured daily for 20 operating days, and every third operating day thereafter, but no less than once weekly.	Same as PAR 1469	• Monitor and record surface tension of electroplating baths once every 40 hours of operation.
Inspection and Maintenance and Operation and Maintenance Plan	Maintain and implement an Operation and Maintenance Plan	Same as PAR 1469	Same as PAR 1469
Reporting of Notification of Incidents	Notify the Executive Officer within four hours of an incident	None Specified	None Specified
Chromium Electroplating or Chromic Acid Anodizing Kit Requirements	Removed in 2018 Amendment	• Prohibit for sale in California, chromium electroplating or chromic acid anodizing kits	None Specified
Conditional Requirements for Permanent Total Enclosures: Triggers	Install a PTE due to: • More than one non-passing source test • More than one failure to cease operating a tank due to a failing measurement of the collection system or a failed smoke test, if the facility is greater than 1,000 feet of a sensitive receptor • One failure to cease operating a tank due to a failing measurement of the	None Specified	None Specified

Rule Element	PAR 1469	ATCM	NESHAP
	collection system or a failed smoke test, if the facility is less than or equal to 1,000 feet of a sensitive receptor		
Phaseout of Hexavalent Chromium	Decorative chrome plating • January 2030 Functional chrome plating • Same as ATCM	Decorative chrome plating • January 2027 • January 2030 (if meeting building enclosure requirements) Functional chrome plating • January 2039 (pending two technology reviews)	Not Required

APPENDIX A – LIST OF AFFECTED FACILITIES

LIST OF AFFECTED FACILITIES

Facility ID	COMPANY
154758	A & Z GRINDING INC
25087	AAA PLATING & INSPECTION INC
5137	ACCU CHROME PLATING CO INC
70220	AERO CHROME PLATING
21321	AIRCRAFT X-RAY LABS INC
47835	ALL METALS PROCESSING OR ORANGE CO INC
205903	ALLEN INDUSTRIAL & MACHINE
178908	ALLFAST FASTENING SYSTEM INC
117435	ALLOY PROCESSING
16951	ANAPLEX CORP
144438	ANDRES TECH PLATING INC
205141	ANILLO INDUSTRIES
7011	ANODYNE INC
55661	ARTISTIC SILVER PLATING
147364	AVIATION REPAIR SOLUTIONS INC
121215	BARKEN'S HARDCHROME INC
13618	BARRY AVE PLATING CO INC
146448	BEO-MAG PLATING INC
118602	BOWMAN FIELD, INC - CHROME NICKEL PLATING
18989	BOWMAN PLATING CO INC
42645	BRITE PLATING CO INC
171832	C&R PLATING, INC
9120	CAL ELECTROPLATING INC
147653	CALIFORNIA FAUCETS INC
1953	CAL-TRON PLATING INC
53447	CARTER PLATING INC
18460	CHRISTENSEN PLATING WKS INC
180575	CHROMADORA, INC
6616	CHROMAL PLATING CO
13844	CHROMPLATE CO
107644	CPPG
98554	DECORE PLATING
12748	DIXON HARD CHROME INC
82730	DNR INDUSTRIES, INC.
143630	ELECTRODE TECH INC, REID METAL FINISHING
7978	ELECTROLIZING INC
10005	ELECTRONIC CHROME GRINDING CO INC
45938	EME INC

Facility ID	COMPANY
47329	FINE QUALITY METAL FINISHING
148373	FULLERTON CUSTOM WORKS INC
11818	HIXSON METAL FINISHING
133930	HYDROFORM USA
236	K & L ANODIZING CORP
17168	KRYLER CORP
140017	LA HABRA PLATING CO INC
132333	LM CHROME CORP
41229	LUBECO INC
122365	METAL FINISHING MARKETERS
20280	METAL SURFACES INC
102334	MOOG INC
136913	MORRELL'S ELECTRO PLATING INC
129249	MULTICHROME CO INC/MICROPLATE
8408	OMNI METAL FINISHING INC
80799	PALM SPRINGS PLATING
187040	PEMACO METAL PROCESSING CORP
24129	PENNOYER-DODGE CO
177440	PLATINUM SURFACE COATING
117804	PRODUCT ENGINEERING CORP
52525	QUAKER CITY PLATING
150363	RE-BILT METALIZING CO
15021	S & K PLATING INC
18845	STUTZMAN PLATING INC
181234	SUNVAIR
124325	SUPERIOR PLATING & BUMPERS, INC
131232	THE BOEING COMPANY-C13 FACILITY
153762	TOOL & JIG PLATING COMPANY
186519	TRIUMPH-EMBEE
180918	V&M AEROSPACE LLC
188380	VALENCE SURFACE TECHNOLOGIES - LYNWOOD
109562	VALLEY PLATING WORKS INC
13945	VAN NUYS PLATING INC
52142	YOLANDAS PLATING

APPENDIX B – PUBLIC COMMENTS AND STAFF RESPONSES

PUBLIC COMMENTS AND STAFF RESPONSES

A PAR 1469 public workshop was held on August 27, 2025. In addition to the oral comments at the meeting, staff received written comments for PAR 1469 before and during a comment period that closed on September 5, 2025. The following are responses to these written comments, followed by South Coast AQMD responses. Comments received before the Public Workshop were included because there were no public meetings after Working Group #2 held before the Public Workshop where staff could formally respond to the comments received.

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1. Comments from Hixson Metal Finishing email, submitted 7/25/25

Min Sue

From: Bruce Greene <bruce.greene@hmfgroup.com>
Sent: Friday, July 25, 2025 11:59 AM
To: Min Sue
Subject: [EXTERNAL] PAR 1469 - Concern

Min,

It's been a while, hope you are doing well.

I recently attended the second working group meeting this past Wednesday and I did have a question/concern of one of the new requirements in the PAR.

This refers to section (g)(7) that also refers to section (g)(1)(B) in our case. In our anodize and chemfilm lines we have, what we refer to as "Drip Trays" that are installed at the floor level and then the walkway grating is installed inside these "Drip Trays". These were designed and installed to capture any drag out that might be spilled outside of the tank during processing. These "Drip Trays" are washed down on a daily basis and plumbed to our waste treatment system so any residue or water collected in these trays is treated before entering the OCSD sewer system. I have attached a picture of one of the "Drip Trays" below for reference.

In looking at the definitions of both a "Drip Tray" and a "Containment Devise" neither of these fit since the material possibly containing Hex Chrome is not returned to the tank but is instead treated and disposed of. 1-1

I know this is probably a matter of semantics, but if an inspector sees this as a "Drip Tray" as we have in the past, then technically per (g)(7), we can't walk on or store anything on these drip tray/walkways while processing parts. This would basically make it impossible to access the processing line and/or any of the tanks.

I believe our system, as installed, meets and/or exceeds the spirit of the regulation by capturing any drag out before hitting the containment system but the wording seems to open us up to possible violations. I'm not sure exactly how to fix this except for maybe adding another definition of "Drag Out Capture Tray" that we could point to in the case of a conflict between AQMD enforcement staff and ourselves.

Any ideas and/or suggestions would be most welcome.

Thanks

Bruce Greene
Environmental/Health & Safety

Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663
Direct: 949.722.3459
Office: 800.900.9798
www.HMFgroup.com

Supporting Flight Excellence

1. Staff Response to Hixson Metal Finishing email, submitted 7/25/25

1-1 Response Rule 1469 currently requires that dragout does not fall outside the tank or be captured by a drip tray or other containment device. To align with the Chrome ATCM, PAR 1469 further requires that dragout that is captured by a containment device be returned back to a tank. Additionally, PAR 1469 (g)(7) prohibits walking on a containment device and that the containment device must be kept free of all objects during operation of the tanks. As such the scenario described in the comment letter does not meet the requirements of PAR 1469.

As the facility is subject to subparagraph (g)(1)(B), which applies to a non-automated line, a cart or tray may be used to capture and return the dragout back to a tank to meet the requirements of PAR 1469 (further discussed in Chapter 2 - Best Management Practices - Subdivision (g)). ~~As discussed in Chapter 1, non-Automated Lines with dragout may use containment devices such as a tray or cart to capture dragout and return the dragout back to a tank.~~

2. Comments from Communities for a Better Environment email, submitted 8/01/25

August 1, 2025
Min Sue, Neil Fujiwara, Kalam Cheung, and Michael Krause
Planning, Rule Development, and Implementation
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

COMMUNITIES FOR A BETTER ENVIRONMENT
40 years | established 1978

RE: Comments on Proposed Amended Rule 1469: Hexavalent Chromium Emission from Chrome Plating and Chromic Acid Anodizing Operations

Dear Proposed Rule 1469 Staff:

Communities for a Better Environment ("CBE") submit these comments on Proposed Rule 1469 Hexavalent Chromium Emission from Chrome Plating and Chromic Acid Anodizing Operations ("Proposed Rule"). We appreciate the South Coast Air Quality Management District ("AQMD") amending the Proposed Rule to reduce hexavalent chromium emissions in frontline communities given CARB's amended Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations ("Chrome ATCM"). While we applaud AQMD for new control measures, monitoring requirements, and phase out of hexavalent chromium use, we are concerned that the current language still falls short of meaningfully protecting environmental justice communities that already face a disproportionate amount of air pollution from transportation, industry, warehouses, and many other sources.

CBE participates in the Southeast Los Angeles ("SELA") AB 617 Steering Committee and has participated in the first two working groups for the Proposed Rule. The mission of CBE is to build people's power in California's frontline communities to achieve environmental health and justice by preventing and reducing pollution and building green, healthy, and sustainable communities and environments. We support AQMD amending the Proposed Rule to reflect the latest updates to Chrome ACTM given the toxicity and harm from hexavalent chromium exposure and hope that these recommendations are reflected in the Proposed Rule language:

1. Regular and Consistent Source Testing
2. Including a Signage Provision for Facilities next to Sensitive Receptors
3. Need More Worker Protections

I. Regular and Consistent Source Testing

The Proposed Rule lacks consistent and periodic source testing schedules for all facilities that use hexavalent chromium. Given the toxicity of the pollutant, this source testing schedule fails to protect workers and communities from exposures. The Proposed Rule has subsequent source testing 5-7 years after the day of the most recent source test that demonstrates compliance with

2-1

South East LA Office
6325 Pacific Blvd, Suite 300
Huntington Park, CA 90255
323.826.9771

all applicable requirements[1]. This source testing schedule rule is too lax and instead needs ongoing compliance. Sometimes air pollution control devices, equipment, and best management practices fail to reduce or prevent air pollution, so adding provisions for regular and consistent source testing [yearly] for hexavalent chromium emissions would create additional safeguards for frontline communities and workers.

2-1 (Cont.)

II. Including a Signage Provision that Requires Facilities that Use Hexavalent Chromium to Notify Adjacent Communities of Potential Hexavalent Chromium Exposure

While we applaud AQMD for the process of phasing out hexavalent chromium use and strengthening best management practices, we worry that the amended rule lacks a signage provision, given the toxic nature of hexavalent chromium and its proximity to environmental justice communities. According to CARB, hexavalent chromium is a carcinogen that is the second most potent toxic air contaminant identified by the state, and it is 500 times more toxic than diesel exhaust.[2] This is alarming since SELA communities house several chrome plating facilities which are also next to other polluting industries and heavily trafficked freeways and trucking routes.[3] Additionally, the Proposed Rule lacks fenceline or real-time monitoring, which makes communities susceptible to potential fugitive emissions, with regulators not addressing the problem until after exposure occurs.

2-2

2-3

III. Need More Protections for Frontline Workers

As mentioned previously, hexavalent chromium is a known carcinogen, and no level of exposure is considered safe. CBE understands that AQMD's jurisdiction is to regulate stationary sources of air pollution, but workers' health and safety is weaved into policies that center around mitigating or eliminating toxic air exposures. The Proposed Rule references OSHA in terms of Permanent Total Enclosure[4] and Requirements for Building Enclosures for Tier II and Tier III Hexavalent Chromium Tanks[5] but fails to provide any specificities on how to adhere to OSHA regulations for best management practices or other maintenance operations. The Proposed Rule can be strengthened by including an interagency coordination requirement with OSHA to educate and better protect workers from hexavalent chromium exposure.

2-4

IV. Conclusion

It is critical that AQMD update the Proposed Rule to address any gaps that could potentially put SELA communities at risk of hexavalent chromium exposure. AQMD should not take lightly the dangers of hexavalent chromium exposures and its carcinogenic toxicity. We appreciate AQMD strengthening the Proposed Rule, even stricter than Chrome ATCM, but these recommendations

[1] Initial Rule Language, https://www.aqmd.gov/docs/default-source/rule-book/proposed-rules/1469-(2025)/par-1469_071825_irl.pdf?sfvrsn=59f26e7e_5

[2] https://ww2.arb.ca.gov/news/carb-passes-new-amendments-phase-out-toxic-hexavalent-chromium

[3] https://www.aqmd.gov/nav/find and https://laist.com/brief/news/health/usc-diesel-truck-pollution-map

[4] Initial Rule Language, pg. 50.

[5] Ibid, pg. 13.

South East LA Office
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323.826.9771

must provide additional safeguards for our communities. We welcome the opportunity to discuss these recommendations.

Sincerely,
Ambar Rivera
Staff Researcher

2. Staff Responses to Communities for a Better Environment email, submitted 8/01/25

2-1 Response Rule 1469 required source tests every five or seven years. PAR 1469 will require functional plating facilities to conduct source tests every two years, which is as stringent as the Chrome ATCM. In addition to source testing, PAR 1469 requires inspection and maintenance of the air pollution control devices and periodic parametric monitoring between source tests to verify the air pollution control device captures and controls hexavalent chromium emissions, which is above and beyond the Chrome ATCM.

2-2 Response PAR 1469 does not have a signage provision. Recent rules that address dust, observable emissions crossing the property line, or odors require signage informing the public who to contact if they observe air quality issues. However, this is not an alert of potential exposure. For inquiries regarding facilities in an area, the public may utilize the South Coast AQMD FIND website database to identify facilities in an area. This would include facilities subject to PAR 1469.

2-3 Response PAR 1469 does not propose fenceline or real-time monitoring but includes requirements to minimize fugitive emissions and control point source emissions. Rule 1480 – *Ambient Monitoring and Sampling of Metal Toxic Air Contaminants* addresses toxic metal emissions not only from facilities subject to PAR 1469, but any other facility that may be emitting metal emissions.

2-4 Response Subdivision (e) refers to OSHA and other agencies in the event another agency creates or has a conflicting requirement with PAR 1469. In this unlikely circumstance, the owner or operator would be allowed to propose an alternate equivalent method to meet the Building Enclosure requirements specified in paragraph (d)(6) or subdivision (e).

Worker protection is outside the scope and purpose of PAR 1469. However, PAR 1469 requirements reduce emissions and may provide a co-benefit to minimize worker exposure (e.g., installation of add-on air pollution control devices, prescriptive handling and storage requirements of materials that may contain hexavalent chromium).

3. Comments from RadTech International email, submitted 8/01/25

August 1, 2025

Mr. Min Sue
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765
msue@aqmd.gov

Re: Public comments on Proposed Amended Rule 1469— Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing

Dear :

RadTech International hereby reiterates the comments we made during the recent working group meeting on proposed amended rule (PAR) 1469. RadTech is the association for the advancement of Ultraviolet/Electron Beam/Light Emitting Diodes (UV/EB/LED) technology. We represent over 800 members nationwide and have sister chapters worldwide. Our processes are environmentally friendly and generate essentially zero VOC emissions. Our technology has been recognized by the district and board members have been very supportive of our industry.

UV/EB/LED materials do not contain chrome and can be used in some operations as potential replacements for conventional materials. We would urge the district to provide incentives to companies who choose to reformulate their process and eliminate emissions of Hexavalent Chrome. Our comments to specific provisions of PAR 1469 follow:

Section (b)—Applicability

PAR 1469 applies to "the owner or operator of any Facility performing Chromium Electroplating or Chromic Acid Anodizing". During the consultation meeting, staff clarified that a UV/EB/LED chrome-free coating process at a facility performing Electroplating or Anodizing would not be subject to the rule as said process would fall under one of the district's coatings rules. We would very much appreciate clarification of Section (b) to incorporate the comments made by staff during the consultation meeting so that there is no confusion about the rule's applicability. 3-1

Section (p)—Reporting

We are concerned that facilities that chose to convert to UV/EB/LED may be subjected to overly prescriptive reporting requirements. A facility may incorporate UV/EB/LED in some of their processes while retaining their conventional materials in other parts of their operation. We request that the rule clearly state that UV/EB/LED operations at facilities that are subject to PAR 1469, will not be subject to the reporting requirements of the rule. As mentioned during the consultation meeting, facilities who choose to eliminate toxics should be encouraged and supported to do so. We are concerned that facilities who convert some or all of their operations to UV/EB/LED will be subjected to Initial Compliance Status Reports and Ongoing Compliance Status and Emissions Reports. Adding yet another regulatory burden as a condition for conversion, is not helpful to businesses or to the district. 3-2

Section (q)-- Procedure for Establishing Alternative Requirements

It is unclear if Section (q) will apply to an operator who choses to replace a chrome based operation with a chrome-free coating process such as UV/EB/LED. We suggest adding language to exempt conversion to UV/EB/LED from these onerous procedures. 3-3

Section (r)—Exemptions

We request the addition of language to exempt UV/EB/LED materials from PAR 1469. The proposed rule includes a specific exemption from trivalent chrome operations and we simply ask for our processes to be given the same consideration. 3-4

Additionally, businesses have expressed concern regarding the financial hardships they face in meeting the requirements of PAR 1469. We urge the district to partner with our industry and the regulated community and provide financial support for conversion to chrome-free projects. 3-5

We appreciate your attention to these issues and look forward to a productive rulemaking effort.

Sincerely

Rita M. Loof
Director, Environmental Affairs

Cc: Kalam Cheung, Michael Krause, Wayne Nastri

3. Staff Responses to RadTech International email, submitted 8/01/25

3-1 Response: As referenced in subdivision (b), PAR 1469 establishes a clear applicability by specifying the type of facilities that would be subject to the requirements of this rule. South Coast AQMD rules specify the applicable sources instead of the non-applicable sources.

3-2 Response: The heading to subdivision (p) has been revised to clarify that the reporting is for meeting the requirements of this rule.

3-3 Response: PAR 1469 subdivision (q) is only applicable to an alternate process to measure surface tension for facilities complying with subparagraph (l)(2)(B). Subdivision (q) is not relevant to the replacement of hexavalent chromium operations with non-hexavalent chromium alternatives.

3-4 Response: Chromium electroplating using trivalent chromium is subject to the requirements of PAR 1469. PAR 1469 paragraph (r)(1) exempts chromium electroplating using trivalent chromium using a wetting agent from subdivisions (m) and (n), which are the monitoring and reporting requirements of this rule. These operations would not have add-on control equipment that would need the verification of operation and recordkeeping.

As discussed in Response 3-1, PAR 1469 specifies the applicability in subdivision (b). As such, UV/EB/LED operations that are separate from chrome plating operations would not be subject to requirements specified in subdivision (m) or (n). Therefore, an exemption from a specific requirement is not warranted for equipment not subject to PAR 1469.

3-5 Response: Incentives are available to convert to chrome free technologies. Prior to and during the development of PAR 1469, industry stakeholders were engaged regarding the availability of incentive funding to transition to a non-hexavalent chromium alternative process. Additionally, a state funded program is being administered by Placer County APCD to assist in the transition to a non-hexavalent chromium alternative process.

4. Comments from The Boeing Company email, submitted 8/04/25

The Boeing Company
4000 Lakewood Blvd.
Long Beach CA 90808-1700

August 04, 2025

S C A Q M D
21865 E. Copley Drive
Diamond Bar, CA 91765

ATTN: Min Sue
Air Quality Specialist
Planning and Rule Development

Re: SCAQMD Rule 1469 Proposed Amendments

Thank you for the opportunity to provide comments relating to the proposed amendments to SCAQMD Rule 1469 (Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations). Boeing requests that the following changes/clarifications be incorporated into the proposed amendments to the rule:

- (c)(27) definition of Enclosed Storage Area states that any space or structure satisfies the requirements. Seek clarification that these types of areas include building enclosures that satisfy the requirements under Section (e). 4-1
- (f)(10) requires that cleaning equipment be kept within Enclosed Storage Areas when not in use. This requirement has resulted in less cleaning operations being performed throughout the day as was done prior to this change in regulatory language. Cleaning equipment (such as HEPA vacuums) are no longer stationed next to or nearby the equipment and readily available to shop floor personnel for a 'clean as you go" basis and now occurs at end of shift. This type of equipment should be excluded from this requirement. 4-2
- (m)(1) imposes parametric monitoring requirements for facilities to follow to assure system compliance between source testing (every five years). CARB has significantly increased source testing requirements (every two years) and the associated costs for these source tests will increase significantly, both due to frequency and consolidation within the industry. SCAQMD should consider adopting an annual requirement for parametric monitoring requirements. 4-3
- Table 4-2 requires temperature gauges for Tier I, Tier II, and Tier III tanks. Request that the requirement be removed for tanks that are not heated/operate at ambient temperature. 4-4
- Appendix 8 details the requirements for conducting smoke tests. The requirements allow no adjustments due to the size of the tanks (minimum 12 points). For our smaller tanks that only have three ventilation slots on each side, the points are only a few inches apart. 4-5

Boeing looks forward to continuing to work with District staff in the development of the proposed amendments to SCAQMD Rule 1469. If you should have any questions or require additional information, please do not hesitate to contact me.

William Pearce
Senior Environmental Engineer
Environmental Services
Environment, Health & Safety

4. Staff Responses to The Boeing Company email, submitted 8/04/25

4-1 Response PAR 1469 has been updated to reflect the requirements of the Chrome ATCM. The intent of the Enclosed Storage Area requirement is to prevent spills and other accidental release of hexavalent chromium-containing waste. As such, physical separation of the stored closed containers from other non-storage areas is required; a building enclosure would not satisfy this requirement unless the entire building is exclusively used for storage only. PAR 1469 includes a compliance pathway where physical barriers may be used to temporarily isolate a designated storage area within a building enclosure. This will allow a facility to temporarily store the unusually large amounts of waste generated from a tank changeout until it can be removed from the facility. Alternately a facility without sufficient space inside a building enclosure may use an enclosed container as the enclosed storage area to store the closed containers.

4-2 Response The storage requirements are in line with the requirements included in the Chrome ATCM. As State law requires a local rule (i.e., PAR 1469) to be at least as stringent as the Chrome ATCM if it is to be implemented in lieu of the Chrome ATCM, the storage requirements in PAR 1469 must be at least as stringent as those in the Chrome ATCM.

4-3 Response PAR 1469 has been updated to allow add-on air pollution control devices subject to the emission limits of subdivision (x) to conduct measurements of slot velocity and push air manifold pressures once every 365 days as they are subject to more frequent source testing.

4-4 Response PAR 1469 has been updated to incorporate the comment.

4-5 Response PAR 1469 has been updated to incorporate the comment.

5. Comments from Metal Finishing Association of Southern California email, submitted 9/05/25

Min Sue

From: Jerry Desmond <jerry@desmondlobbyfirm.com>
Sent: Friday, September 5, 2025 3:48 PM
To: Michael Krause; Min Sue; Neil Fujiwara; Kalam Cheung
Cc: Bryan Leiker (bleiker@klanodizing.com)
Subject: [EXTERNAL] SCAQMD PAR 1469 - Comments of MFASC

Hi Mike, Min, Neil and Kalam –

The Metal Finishing Association of Southern California [MFASC] provides the following comments on the Proposed Amended Rule 1469.

The association requests that the rule language be clear that::

1. The storage enclosure requirements in the rule only apply to hexavalent chromium bearing materials directly related to Rule 1469 processes. 5-1
2. Sealed drums, totes, and bins qualify as compliant storage enclosures. 5-2

Thanks you in advance for the consideration of these comments, and for the ongoing process of stakeholder engaement. MFASC is cretainly available to discuss at your convenience.

Best,
Jerry Desmond

Jerry Desmond, Esq.

DESMOND & DESMOND LLC

CALIFORNIA GOVERNMENT RELATIONS
925 L Street, Suite 260, Sacramento CA 95814
916.441.4166
jerry@desmondlobbyfirm.com
www.DesmondLobbyFirm.com

5. Staff Responses to Metal Finishing Association of Southern California email, submitted 9/05/25

5-1 Response The Chrome ATCM requires containers with hexavalent chromium to be closed and stored in an enclosed storage area. This requirement is not limited to hexavalent chromium waste generated from operations subject to the Chrome ATCM or PAR 1469.

5-2 Response Examples have been added to the Staff Report in subdivision (f) in Chapter 2.

ATTACHMENT H

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

PROJECT TITLE: **PROPOSED AMENDED RULE 1469 – HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation for posting on their CEQAnet Web Portal which may be accessed via the following weblink: https://ceqanet.lci.ca.gov/search/recent. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2025.

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: County Clerks for the Counties of Los Angeles, Orange, Riverside, and San Bernardino; and Governor's Office of Land Use and Climate Innovation – State Clearinghouse	**From:** South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Project Title: Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Project Location: The proposed project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: Proposed Amended Rule 1469 (PAR 1469) implements the 2023 California Air Resources Board (CARB) amendments to the Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Operations (Chrome ATCM) including the phase out of hexavalent chromium used for decorative chrome operations and functional chrome operations dependent on findings from pending technology reviews to be conducted by CARB. The Chrome ATCM also prohibits new hexavalent chromium electroplating or chromic acid anodizing facilities and includes enhanced best management practices and housekeeping requirements. In addition, PAR 1469 includes clarifications of existing rule requirements, changes to source test deadlines, and procedures that assist in rule implementation. Upon full implementation, PAR 1469 is projected to reduce hexavalent chromium emissions by approximately 6.56 pounds per year which will reduce risk of exposure of this toxic chemical to workers, nearby receptors, and the public.

Public Agency Approving Project:	**Agency Carrying Out Project:**
South Coast Air Quality Management District	South Coast Air Quality Management District

Exempt Status: CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

Reasons Why Project Is Exempt: South Coast AQMD, as Lead Agency, has reviewed the proposed project (PAR 1469) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because PAR 1469 incorporates provisions from the Chrome ATCM, an existing regulation whose environmental impacts were analyzed in the Final Environmental Analysis for the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations which was certified by CARB on May 25, 2023, and because PAR 1469 includes other requirements which are separate from the Chrome ATCM and do not require physical modifications, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Public Hearing: December 5, 2025

CEQA Contact Person:	**Phone Number:**	**Email:**
Kevin Ni	(909) 396-2462	kni@aqmd.gov
PAR 1469 Contact Person:	**Phone Number:**	**Email:**
Min Sue	(909) 396-3241	msue@aqmd.gov

Date Received for Filing: _____ **Signature:** *(Signed and Dated Upon Board Approval)*

Kevin Ni
Program Supervisor, CEQA
Planning, Rule Development, and
Implementation

ATTACHMENT I

Proposed Amended Rule 1469

Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Governing Board Meeting
December 5, 2025

Background

- Rule 1469 addresses hexavalent chromium emissions from chromium electroplating and chromic acid anodizing (chrome plating and anodizing)
- Hexavalent chromium is a potent carcinogen
- 72 facilities in South Coast AQMD
  - 30 decorative plating facilities – automotive parts, bathroom fixtures (shine and corrosivity)
  - 42 functional plating which includes hard chrome and anodizing facilities – airplane parts, safety parts (protective layer, corrosivity, functional properties)

Air Quality Regulations for Chrome Plating

Chrome plating facilities are subject to federal, state and local regulations

- CARB amended Chrome ATCM in 2023
  - Beginning January 1, 2026, Chrome ATCM will be more stringent than Rule 1469
- State law requires local rule to be at least as stringent as the Chrome ATCM
  - Proposed Amended Rule 1469 (PAR 1469) will align with the Chrome ATCM

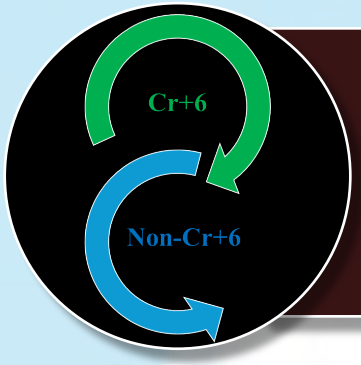
Key Chrome ATCM Alignments in PAR 1469

	Rule 1469	PAR 1469 to Align with Chrome ATCM
Phase Out Hexavalent Chromium	None	Decorative – 2030 Functional – 2039[1]
 Source Test Frequency	Every 5 or 7 Years	Decorative – No change Functional – Every 2 years[2]
 Emission Limits (mg/amp-hr)	0.0015 or 0.0011	Decorative – No change Functional – 0.00075[2]
 Storage of Hexavalent Chromium Waste	In Closed Container	In Close Container and Designated Storage Area

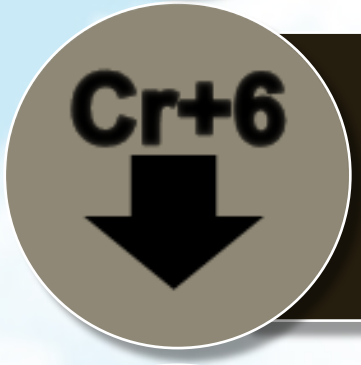
[1] *Pending two technology reviews by CARB before 2039*

[2] *Effective January 1, 2026*

Phase Out of Hexavalent Chromium



In CARB's evaluation of the Chrome ATCM, facilities are expected to transition to non-hexavalent chromium technologies



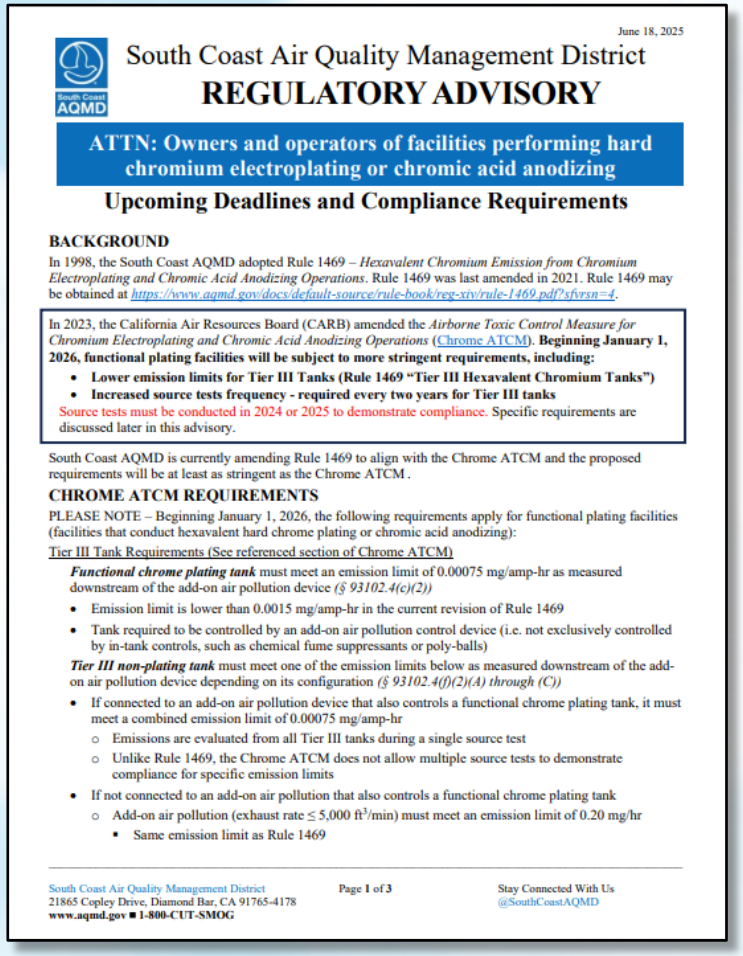
Phase out will result in a reduction of 6.6 pounds per year of hexavalent chromium emissions

State has approved $10 million to assist in the transition to alternative technologies

($150K for any facility or $300K for a small business)

Public Process for PAR 1469

- Two working group meetings and one Public Workshop
- Two versions of rule language released for public review
- Two regulatory advisories distributed to stakeholders
  - March 2024 - to notify facilities about amending Rule 1469 to align with Chrome ATCM
  - June 2025 - to remind facilities about upcoming compliance deadlines



June 18, 2025

South Coast Air Quality Management District

REGULATORY ADVISORY

ATTN: Owners and operators of facilities performing hard chromium electroplating or chromic acid anodizing

Upcoming Deadlines and Compliance Requirements

BACKGROUND

In 1998, the South Coast AQMD adopted Rule 1469 – *Hexavalent Chromium Emission from Chromium Electroplating and Chromic Acid Anodizing Operations*. Rule 1469 was last amended in 2021. Rule 1469 may be obtained at https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1469.pdf?sfvrsn=4.

In 2023, the California Air Resources Board (CARB) amended the *Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations* (Chrome ATCM). **Beginning January 1, 2026, functional plating facilities will be subject to more stringent requirements, including:**

- **Lower emission limits for Tier III Tanks (Rule 1469 "Tier III Hexavalent Chromium Tanks")**
- **Increased source tests frequency - required every two years for Tier III tanks**

Source tests must be conducted in 2024 or 2025 to demonstrate compliance. Specific requirements are discussed later in this advisory.

South Coast AQMD is currently amending Rule 1469 to align with the Chrome ATCM and the proposed requirements will be at least as stringent as the Chrome ATCM.

CHROME ATCM REQUIREMENTS

PLEASE NOTE – Beginning January 1, 2026, the following requirements apply for functional plating facilities (facilities that conduct hexavalent hard chrome plating or chromic acid anodizing):

Tier III Tank Requirements (See referenced section of Chrome ATCM)

Functional chrome plating tank must meet an emission limit of 0.00075 mg/amp-hr as measured downstream of the add-on air pollution device *(§ 93102.4(c)(2))*

- Emission limit is lower than 0.0015 mg/amp-hr in the current revision of Rule 1469
- Tank required to be controlled by an add-on air pollution control device (i.e. not exclusively controlled by in-tank controls, such as chemical fume suppressants or poly-balls)

Tier III non-plating tank must meet one of the emission limits below as measured downstream of the add-on air pollution device depending on its configuration *(§ 93102.4(f)(2)(A) through (C))*

- If connected to an add-on air pollution device that also controls a functional chrome plating tank, it must meet a combined emission limit of 0.00075 mg/amp-hr
  - Emissions are evaluated from all Tier III tanks during a single source test
  - Unlike Rule 1469, the Chrome ATCM does not allow multiple source tests to demonstrate compliance for specific emission limits
- If not connected to an add-on air pollution that also controls a functional chrome plating tank
  - Add-on air pollution (exhaust rate ≤ 5,000 ft^3/min) must meet an emission limit of 0.20 mg/hr
    - Same emission limit as Rule 1469

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Page 1 of 3

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Key Issue – Submission of Permit Applications for Equipment Subject to New Emissions Limits

Comment:

Modifying permit(s) to incorporate the new emission limit is not necessary and impose additional costs on facilities

Response:

- Chrome ATCM established a new lower emission limit for functional chrome plating facilities
- PAR 1469 incorporates Chrome ATCM's new lower emission limit
  - A permit modification is needed to align with the new lower emission in PAR 1469 for functional chrome plating facilities
  - Engineering evaluation needed to verify compliance with new lower emission limit
- Estimated average cost is $16,500 per facility (one-time cost)

Socioeconomic Impact Assessment and CEQA

Socioeconomic Impact Assessment

- No new costs attributed to additional requirements in PAR 1469 that were not included in CARB's Chrome ATCM
- Permit application fees/waste storage equipment costs previously embedded in statewide cost analysis for CARB's Chrome ATCM but costs were not specified by air district
- South Coast AQMD staff analyzed the portion from CARB's Chrome ATCM applicable to facilities subject to PAR 1469:
  - Present Value $1,324,000 to $1,650,000*
  - Average Annual Cost $96,000 to $115,000**

*Reflects discounting for 2025-2039 at a 4% and 1% discount rate, respectively. ** Reflects amortizing for 2025-2039 at a 1% and 4% real interest rate, respectively.

California Environmental Quality Act (CEQA)

- No physical modifications and no significant impacts expected for PAR 1469
- Environmental impacts previously analyzed for CARB's Chrome ATCM
- A Notice of Exemption has been prepared

Staff Recommendation

Adopt the Resolution:

- ❑ Determining that Proposed Amended Rule 1469 is exempt from requirements of CEQA
- ❑ Amending Rule 1469