

# Addendum to the Final Statement of Reasons for Rulemaking

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

Public Hearing Date: January 27, 2023, and May 25, 2023  
Agenda Item No.: 23-1-7 and 23-5-2  
Addendum Prepared: November 10, 2023

### I. General Discussion

This addendum to the Final Statement of Reasons (FSOR) for the rulemaking action entitled “Public Hearing to Consider the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations” updates the original FSOR that the California Air Resources Board (CARB) submitted to the Office of Administrative Law (OAL) on August 9, 2023. On September 20, 2023, CARB withdrew the rulemaking from OAL’s consideration.

On October 16, 2023, a Third Notice of Public Availability of Modified Text (Third 15-Day Notice) and Proposed Third 15-Day Modifications to the Proposed Regulation Order were posted for a public review and comment period through October 31, 2023. The proposed Third 15-Day Modifications provided greater clarity and enforceability to the Proposed Amendments and ensure that the Proposed Amendments are consistent with the Board’s direction and the intent of the original rulemaking proposal as stated in the Initial Statement of Reasons (ISOR), [Chrome ATCM - ISOR \(ca.gov\)](#), released on November 29, 2022, to phase out hexavalent chromium.

This addendum describes the substantial and non-substantial modifications made to the regulatory language per the Third 15-Day Notice changes released on October 16, 2023, and provides CARB’s responses to public comments received during the 15-Day comment period that ended October 31, 2023.

### II. Modifications Made to the Original Proposal Subsequent to September 20, 2023, Withdrawal

#### A. Modifications made in the Third Notice of Public Availability of Modified Text

Subsequent to CARB’s September 20, 2023, withdrawal, modifications to the original proposal were made to provide greater clarity and enforceability to the Proposed Amendments and

ensure that the Proposed Amendments are consistent with the Board’s direction and the intent of the original rulemaking proposal as stated in the ISOR released on November 29, 2022, to phase out hexavalent chromium. CARB staff released a Third 15-Day Notice on October 16, 2023, which presented additional modifications to the regulatory text for public review and comment.

The following is a broad summary of the changes that were made to the initial proposal in the Third 15-Day Notice. Staff proposed modifications to sections 93102.3, 93102.4, 93102.5, 93102.6, 93102.7, 93102.9, and 93102.16 of title 17 of the California Code of Regulations. For further details on all the modifications, see the “Third Notice of Public Availability of Modified Text” posted on October 16, 2023, available online at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2023/chromeatcm2023/3rd15daynotice.pdf>.

- In section 93102.4, staff made the following revisions:
  - To clarify applicability, staff revised the first paragraph by removing the phrase “except for those Facilities that only operate enclosed hexavalent chromium plating tank”. The purpose of this revision is to make clear that facilities that only operate enclosed hexavalent chromium plating tanks are subject to that section’s requirements for facilities that use hexavalent chromium. This pre-existing language text should have been removed from the Proposed Amendments to Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations (“Proposed Amendments”) when regulatory edits were made to clarify the intent of the provision to have all chrome plating facilities subject to the ATCM. This change is necessary to ensure that the Proposed Amendments are consistent with the Board’s direction and the intent of the original 45-day notice package for the Proposed Amendments, stated in the ISOR released on November 29, 2022, to phase out hexavalent chromium emissions from chrome plating.
  - In Table 93102.4 of subsection (c)(1)(B), staff amended the Emission Limitation column, in which Sensitive Receptor Distance is > 330 feet and Annual Permitted Ampere-Hours is > 50,000 and ≤ 500,000 (the fifth row and third column), with the phrase “as measured after Add-on Air Pollution Control Device(s),” to clarify where the emission limitation is measured.
- In subsection 93102.5(c), staff clarified the implementation date for housekeeping requirements by adding the phrase “Beginning January 1, 2024, the following housekeeping practices shall be implemented:”. The purpose for adding the date is to clarify when the provision shall be effective.
- In section 93102.6, staff made the following revisions:
  - In subsection (a)(1)(A), staff added “(for Facilities using Trivalent Chromium Plating prior to January 1, 2024) or section 93102.13(d)(2)(B) (for Facilities changing to Trivalent Chromium Plating on or after January 1, 2024,)” to the end of the sentence to improve clarity as to which reporting requirements apply to which facilities. Staff added commas and deleted the word “and” to improve

grammar and syntax. Staff also added the phrase “complying with” to clarify the requirements of this subsection.

- In subsection (a)(1)(B), staff added “(for Facilities using Trivalent Chromium Plating prior to January 1, 2024) or section 93102.13(d)(2)(A) (for Facilities changing to Trivalent Chromium Plating on or after January 1, 2024)” to the end of the sentence to improve clarity as to which reporting requirements apply to which facilities. Staff also added commas to improve the grammar, rephrased the recordkeeping and reporting requirements, and added the phrase “complying with” to clarify the requirements of this subsection.
- In subsection (b)(2), staff removed the word “only” and removed the phrase “except for the requirements set forth in section 93102.4” to clarify the applicability requirements for facilities that have enclosed hexavalent chromium plating tank(s). This text should have been removed from the Proposed Amendments as edits were made because it was pre-existing language. Removing this text will clarify the intent of the provision to have all chrome plating facilities subject to the hexavalent chromium phase-out in this ATCM.
- Staff removed subsection (b)(3). The subsection (b)(2) amendments eliminated the need for subsection (b)(3) because the information contained in both subsections, although worded differently, has the same meaning.
- In subsection 93102.7(a)(1), staff added the phrase “and section 93102.4(f)(2)” to the end of the sentence to clarify the source test emission limitation requirements.

## **B. Non-Substantial Modifications**

The non-substantial modifications described below clarify, and do not materially alter, the requirements, rights, responsibilities, conditions, or prescriptions contained in the Proposed Amendments, as approved for adoption by CARB. (See Cal. Code Regs., tit. 1, § 40).

After the August 9, 2023, submittal to OAL, the following non-substantial modifications were made to the Final Regulation Order and noticed via the Third 15-Day Notice on October 16, 2023. The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all the non-substantive revisions.

- In Authority and Reference citations of sections 93102.1, 93102.2, 93102.3, 93102.6, 93102.9, ensured accurate spacing between “Safety” and “Code” when citing the Health and Safety Code.
- In Authority and Reference citations of sections 93102.11, 93102.12, 93102.14, ensured accurate spacing between “41511,” and “Health and Safety Code”.
- In the Authority and Reference citations, staff removed the commas preceding “and” to align the citations with what is printed in the current CCR.
- Staff updated the titles of all sections by adding a period after section number to align the section titles with what is printed in the current CCR.
- In section 93102.3, staff made the following revisions:

- In subsection (a)(24), staff updated the spelling of the previously struck word “anyhyride” to “anhydride” so that the text being struck is consistent with the current California Code of Regulations (CCR).
- In subsection (a)(47), staff changed the abbreviation of ampere from “A” to “Amp” for consistency and to improve clarity.
- In subsection (a)(74)(D), the final regulation order as posted on August 9, 2023, had "shall" underlined as well as "Part 70 or". This text was underlined in error. The underline formatting has since been removed to address this error.
- In subsections 93102.9(d)(1) and (2), Appendix 8 was updated to Appendix 7 to be consistent with the renumbering of appendices and correctly reference Appendix 7 – Surface Tension Procedure for a Stalagmometer.
- In Section 93102.13, staff made the following revisions:
  - In subsection (b), staff deleted the date “April 24, 2008” from prior proposed versions of the regulatory text and added “180 days after the effective date of this rule” so the language is consistent with what is printed in the current CCR. The deleted date “April 24, 2008” is 180 days after the effective date of the rule, October 24, 2007.
  - In subsection (d)(1)(A), staff deleted the date “November 24, 2007” from prior proposed versions of the regulatory text and added “30 days after the effective date of this rule” so the language is consistent with what is printed in the current CCR. Also, staff added a comma after the date “July 1, 2024,” for grammatical accuracy.
- In section 93102.16 Appendix 1, staff made the following revisions:
  - In subsection 3.b. staff updated the email address from [chrome@arb.ca.gov](mailto:chrome@arb.ca.gov) to [chromeplatingatcm@arb.ca.gov](mailto:chromeplatingatcm@arb.ca.gov) to be consistent with the email address listed on CARB’s website.
  - In subsection 4.a. staff replaced the broken webpage link “<https://www.capcoa.org/airdistricts/>” with the following link: <https://ww2.arb.ca.gov/california-air-districts>.

Subsequent to the Third 15-Day Notice, the following non-substantial modifications were made to the Final Regulation Order. The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all the non-substantive revisions made subsequent to the Third 15-Day Notice.

- In section 93102.2, staff underlined the ‘s’ in ‘rules’ to indicate that a District may have more than one Breakdown rule. This text should have been underlined to denote the change in the Third 15-Day Notice. The underline formatting has since been added to address this error.
- In section 93102.3, staff made the following revisions:
  - In subsection (a)(40), staff updated the strikethrough and underline formatting for the word ‘Source’ in the phrase ‘or an outer continental shelf (OCS) Source’.

'Source' was capitalized in error during the 45-Day changes; however, in this instance, 'source' is not used to mean 'Source' as defined by the regulatory text. The word 'source' has been changed to lowercase to be consistent with the language that is printed in the current CCR. The change was denoted by striking out the uppercase 'S' and underlining the lowercase 's'.

- In subsection (a)(47), staff corrected the strikethrough text from 'The ~~hHard~~ ~~eChrome~~ ~~pPlating~~ process' to 'The ~~hHard~~ ~~chromium~~ ~~Chrome~~ ~~electroplating~~ Plating process' to be consistent with the language that is printed in the current CCR.
- In subsection (a)(74)(C), staff corrected the strikethrough and underline formatting for the second instance of the word 'federal'. The second instance of the word 'federal' was made lowercase during the 45-Day changes; however, this change was not denoted by striking out the uppercase 'F' and underlining the lowercase 'f'. The strikethrough and underline formatting has since been added to address this error.
- In section 93102.4(b)(2)(B)3., staff capitalized the word 'Facilities' to be consistent with the capitalization of definitions throughout the regulatory text.
- In section 93102.5(c)(5), staff removed the underline and strikethrough formatting from the phrase 'and in accordance with hazardous waste requirements' to clarify that this text was not added to the regulatory text and should not be removed. This text is present in the current CCR and was formatted incorrectly during the 45-Day changes. The text was restored to be consistent with the language printing in the current CCR.
- In section 93102.6(b)(1)(B), staff removed the underline formatting from the 'p' in the phrase '~~Chrome~~ ~~pPlating~~ ~~bBath~~' to clarify that this text should be removed. This change was proposed during the 45-Day changes; however, the text was mistakenly left underlined. The underline formatting has since been removed to address this error.
- In Table 93102.10 of section 93102.10, staff removed the underline formatting from the 'd' in the word '~~dDevice~~' in the third row of the 'Inspection and Maintenance Requirements' column to clarify that this text should be struck out. This change was proposed during the 45-Day changes; however, the text was mistakenly left underlined. The underline formatting has since been removed to address this error.
- In section 93102.12, staff made the following revisions:
  - In subsection (c)(4)(A), staff removed the lowercase 'f' from the text '~~fFacilities~~' to be consistent with with the language that is printed in the current CCR. 'Facilities' is capitalized in the CCR and 'f' was added erroneously during the 45-Day changes.
  - In subsections (g) and (h), staff capitalized the word 'Facilities' to be consistent with the capitalization of definitions throughout the regulatory text. The change was denoted by striking out the lowercase 'f' and underlining the uppercase 'F'.
- In subsection 1. of section 93102.16 Appendix 3, staff capitalized the word 'Facilities' to be consistent with the capitalization of definitions throughout the regulatory text. The change was denoted by striking out the lowercase 'f' and underlining the uppercase 'F'.

### III. Modifications to the Original Summary of Comments and Agency Responses in the FSOR

CARB staff posted the Third Notice of Public Availability of Modified Text and Availability of Additional Documents and Information on October 16, 2023, referred to herein as the Third 15-Day Notice. The following commenters submitted comments to the public docket during the 15-Day comment period which ran from October 16, 2023, through October 31, 2023.

**Table 1. Written Comments Received During the Third 15-Day Comment Period**

Comment Number	Commenter	Association	Date Comment was Received/ Added to Database
258	Carmen Campbell		10/17/2023
259	Jerry Desmond	Metal Finishing Association of California	10/20/2023
260-1 to 260-2	Jim Meyer	Aviation Repair Solutions	10/24/2023
261	Jim Meyer		10/27/2023
262	Jim Meyer		10/27/2023
263-1 to 263-2	David Hill/Susan B. Grant	Electrolizing	10/30/2023
264	Florence Gharibian	Del Amo Action Committee	10/31/2023

A summary of comments on the Proposed Amendments, as well as responses, are categorized and provided below. Comment letters received during the public review periods can be found in the Appendix A to this FSOR Addendum and are posted on the [Rulemaking 2023 Chrome Plating ATCM](#) website.

#### A. Comments Received during the Third 15-Day Comment Period

##### 1. Comments in Support of the Third 15-Day Notice Changes

###### Comment 264:

On October 16, 2023, the California Air Resources Board released the Chrome Plating ATCM Third Notice of Public Availability of Modified Text. Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations. We support the proposed amendments and commend the staff for the integrity of this work.

This correspondence provides comments on the document. As mentioned, in previous correspondence we were encouraged by the Board’s approval of the ATCM Amendments. Greg Harris and his staff modified the language to correct grammatical errors and more importantly to clarify the language in the document.

Florence Gharibian, Chair of the Del Amo Action Committee served as a Branch Chief in Department of Toxic Substances Control Enforcement Program for several years. Ambiguous language diminishes the ability of inspectors to do the important work of ensuring regulatory requirements are met. It can also make compliance more difficult.

As example of clarification of the ATCM Amendments staff removed the word “only” and removed the phrase “except for the requirements set in 93102.4” to clarify the applicability requirements for facilities that have enclosed hexavalent chromium plating tank(s). This modification was necessary and strengthens the ASTM. The modification makes it clear that

chromium plating tanks are subject to that section's requirements for facilities that use hexavalent chromium. Clearly the enclosure of hexavalent chromium plating tank(s) is necessary and significantly reduces air emissions of this dangerous chemical.

Response 264:

Thank you for your comment and support for the Third 15-Day Notice changes. CARB staff made no changes to the Proposed Amendments based on the received comment.

## **2. Comments in Opposition of the Third 15-Day Notice Changes**

The following comments expressed common concerns: 259, 260-1, 261, and 263-2.

Comment 259:

1. The modified text is a substantive revision to the update.

There are five distinct provisions within the current version of the proposed update to the ATCM that define "enclosed plating tanks," exclude them from the ban dates, and establish an emission limit for them of 0.015 mg/dscm:

- Section 93102.3(a)(34): "Enclosed Hexavalent Chromium Plating Tank" means a Chrome Plating Tank using a Hexavalent Chromium solution that is equipped with an enclosing hood and ventilated as specified by the manufacturer.
- Section 93102.4: This section sets forth requirements that apply to all Facilities using Hexavalent Chromium for Chrome Plating Operations, except for those Facilities that only operate Enclosed Hexavalent Chromium Plating Tanks.
- Section 93102.6: Requirements for Tri-Chrome Plating or Hex Chrome Plating in Enclosed Tanks
- Section 93102.6 (b)(1): establishes an emission limit of 0.015 mg/dscm per tank, as measured through the add-on pollution control device or compliance with two alternatives: chemical fume suppressants or a mass emission rate limit.
- Appendix 6: Mass Emission Rate Calculation Procedure.

2. The modifications remove enclosed tank provisions that draft update regulatory language has identified and addressed since the first draft in May of 2021.

The first draft of the regulatory language on May 26, 2021:

<https://ww2.arb.ca.gov/sites/default/files/classic/toxics/chrome/draftlanguage.pdf>.

3. The modifications remove provisions that plating facilities have been relying upon.

Plating facilities have invested time and resources over the past 2.5 years to develop, purchase, install and utilize enclosed tanks in accordance with this provision.

3. Enclosed hoods are a Best Available Control Technology [BACT].

Plating tanks with hoods eliminate fugitive emissions, capture 100% of the hexavalent chromium emissions from those hoods, are reliable, measureable, and enforceable.

4. The modifications remove enclosed tanks with hoods as a BACT.

The rulemaking record clearly dismisses available and effective BACTs including the following in the ISOR:

“For this ATCM, CARB staff have evaluated all feasible substitutes (e.g., conversion to trivalent chromium plating) and emission reduction and monitoring strategies (e.g., use of fume suppressants, increased testing and recordkeeping, and fugitive emission control strategies) to reduce emissions of hexavalent chromium from chrome plating facilities in California. Since there is no safe threshold exposure level identified for hexavalent chromium, due to the location of many of these facilities within communities and near sensitive receptors, and since less toxic alternative technology is available or is under development, CARB staff is proposing to eliminate usage of hexavalent chromium by the chrome plating industry in order to protect public health.”

5. The failure of the modifications to consider enclosed plating tanks with hoods, and other BACTs, is contrary to the requirements of state law:

Health and Safety Code [HSC] Section 39666[c] requires the ATCM for toxic air contaminants [TACs] with no identified safe level of exposure to reduce emissions to the lowest level achievable through application of the best available control technology or a more effective control method, in consideration of the factors specified in HSC Section 39665[b]. These factors include health risks, availability and technological feasibility, costs, and the availability, suitability, and relative efficacy of less hazardous substitute compounds.

HSC Section 39666[c] requires the ATCM “to reduce emissions to the lowest level achievable through application of the best available control technology or a more effective control method.” The proposed draft CrVI ATCM not only fails to identify or analyze the best available control technology [BACT] or more effective control methods, it purposefully eliminates one.

This clear error is compounded by the fact that the South Coast Air Quality Management District [SCAQMD]’s updated Rule 1469, a rule in which CARB was engaged, includes BACT requirements.

Further, HSC Section 39666[c] does not state that the ATCM may include two of the key provisions of the draft update: [i] chemical bans; and [ii] requirements to substitute trivalent and other yet-to-be-determined substitutions for CrVI.

For each of these reasons, the associations request that CARB revise the modifications to allow for the use of enclosed tanks that will obtain the desired objective of zero emissions of hexavalent chromium emissions from plating tanks.

#### Comment 260-1:

This comment pertains to the revision of paragraph one of section 93102.4 to eliminate the phrase "except for those facilities that only operate enclosed hexavalent chromium plating tank" (sic). With this change, the rule rejects the final candidate for BACT even though no analysis was done or shown to the public to support the decision.

The California Air Resources Board (CARB) is required to follow the California Health and Safety Code. This is what the health and safety code has to say about CARB's authority to regulate. CARB is to:



"reduce emissions to the lowest level achievable through application of best available control technology or a more effective control method, unless the state board or a district board determines, based on an assessment of risk, that an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health"

CARB has not proposed a more effective control method in this regulation. CARB has proposed a ban. Labelled a "phaseout", it is an elimination of the industry. It is a ban. A ban is not a control method. A phase out is not a control method. CARB did not analyze existing or potential BACT. CARB did not propose a BACT. The elimination of enclosed hexavalent control tanks as a compliance option is the last straw. Enclosed hexavalent chrome plating tanks were potentially a BACT. But now, with their elimination, without analysis, CARB will be completely in violation of the California Health and Safety Code.

A careful reading of the health and safety passage above reveals the law does offer CARB the option of performing a risk assessment to establish the necessity of an alternative to BACT, but CARB did not perform a compliant risk analysis. To assess and compare risks in a compliant fashion, CARB would have had to analyze BACT and BACT alternatives. CARB would have had to select one of those alternatives and then analyze the incremental risk that alternative would have created. CARB did not do that. CARB created a risk analysis that was based on an arbitrary emissions limit that CARB set. That emissions limit was one half the previous limit. There is no presentation of any analysis or conclusion explaining why exactly one half the previous emission limit was chosen. There is no analysis explaining why zero, a ban, is a necessity considering the emission levels that currently available BACT options present. The table below points this out.

#### Emission Level Comment

2007 ATCM Limit 0.0015000 This is the existing rule

2023 ATCM Limit (This Rule) 0.0007500 This is CARBs proposed limit

Hard HEPA (Av Repair Sol) 0.0000230 32 times BELOW this ATCM proposed limit

Hard with Covers (Merlin Tanks) 0.0000041 183 times BELOW this ATCM proposed limit

The Aviation Repair Solutions, Inc. source test shown in the table was a "Non-Detect" for hex chrome. It reflects the emission rate at the detection limit under a very heavy plating amp hour load. It was a zero emission which only shows as a non-zero emission rate because of CARB rules about detection limits. The emission rate shown in the table for enclosed hooded tanks is even lower and was also very likely a non-detect for hex chrome. CARB failed to evaluate these two zero emission control technologies (HEPA and Enclosed Tanks) as BACT.

CARB does not reveal any discussion of BACT in the rule making record as is required by law. There is no identification of a BACT. There is no analysis of any BACT emission rate or of any candidate BACT emission rates. The emission inventory shows emission rates by type of emitter and in some cases averages them but it does not show a rate for candidate BACTs. (But since the enclosed tank - Merlin statistic is alone on the table, we can see its' rate). For hard chrome, CARB appears to have taken an average of all hard chrome tests (0.0005588). But, since that is an average of tests applying to a set of different control technologies, it is invalid to have been used in replacement for the legal BACT requirement.

The Health Risk Assessment (Appendix F) did not analyze risk relative to any BACT. Rather, it analyzed the risk associated with the completely arbitrary 0.00075 proposed emission limit. An emission limit is not a BACT. Analyzing the risk of a limit is not the same as analyzing the risk of a control technology. The proposed rule materials provide no analysis or supporting rationale why the halving of the current limit to 0.00075 is or is not related to any BACT or to any particular level of public health. It is just a number that is half the previous number. One wonders why CARB took 2 or 3 years to produce the rule. We can see from the table above that had CARB selected a BACT for analysis (either HEPA or Merlin tank) they could have performed the risk assessment with values of 0.000023 or 0.0000041 but they did not. CARB provided no rationale why they performed a risk analysis that assumed emission levels would be 0.00075 when we can clearly see that much lower emission rates are possible with current BACT alternatives. CARB used a value for the risk analysis that is 32 to 183 times higher than what these two potential BACTs can achieve.

An industry which has spent millions of dollars buying the BACT devices that this governmental agency did not even analyze before declaring them insufficient. It is even more damning to consider that industry has paid millions of dollars to implement control technologies that are capable of producing zero measured emissions and can achieve "Non-Detect" under heavy load conditions and yet CARB did not analyze them.

This comment is in scope because it questions the removal of a BACT alternative without analysis and in light of a risk assessment that did not consider BACT and in light of nearly a hundred times more emissions of the same toxic in the state by entities who have lesser controls than we do.

#### Comment 261:

What is the specific logic path CARB used to reject enclosed hexavalent chrome tanks and HEPA ?

- 1) Is a "phaseout" (or ban) a "more effective control method"? If yes, what is the control?
- 2) Did the CARB perform an assessment of risk? When was it accomplished? Where are the results of it? Does CARB assert it is appendix F?
- 3) Relative to an alternative level of emission reduction, how was "adequacy" of HEPA and enclosed tank rejected? What analysis was performed? When was the analysis performed? When did the rejection decision occur? Was the public or any working group able to provide feedback to CARB about the analysis data and methods?
- 4) Relative to an alternate level of emission reduction, how was "necessity" established? Was there an analysis performed? What were the criteria used to determine necessity? When was the analysis performed? When was the decision made?
- 5) What is the logic that makes it a necessity to ban enclosed hexavalent chrome tanks and chrome tanks with HEPA controls but makes it not a necessity to ban welding, thermal spray, machining, heat treating, cement making, cement destruction, forging, recycling, refineries, driving cars and trucks (including electric) with brakes, etc., many of which do not require even HEPA?

Comment 263-2:

Our processing is situated as such that we emit no hexavalent chromium into the air at any time. We have been a spearhead in the industry for air quality by adding highly specialized covers and hydrogen gas absorbing filament in those covers which filter/ resist 100% of the hexavalent chromium.

Furthermore, our stance is that we should not be included in the 2039 ban on hexavalent chrome use in California based on the fact that we emit no hexavalent chrome fumes during any point in our process.

Response 259, 260-1, 261, and 263-2:

CARB disagrees that the changes made in the Third 15-Day Notice are a substantial modification to the Proposed Amendments. The proposed Third 15-Day Modifications ensure that the Proposed Amendments are consistent with the intent of the original rulemaking proposal as stated in the ISOR, [Chrome ATCM - ISOR \(ca.gov\)](#), released on November 29, 2022. On page 5 of the ISOR it states:

“The Proposed Amendments will result in the most stringent regulation of hexavalent chromium emissions from the chrome plating industry (compared to federal standards and District rules), with the goal of **eliminating** toxic hexavalent chromium emissions from the chrome plating industry in California over time.”

The Board directed the CARB Executive Officer to make any additional conforming modifications to the Proposed Amendments and to make these changes, as well as any additional supporting documents and information, available to the public for a period of at least 15 days. The changes made in the Third 15-Day Notice are additional conforming modifications that align the Proposed Amendments with the Board’s direction to fully eliminate hexavalent chromium at all decorative and functional chrome plating facilities and chromic acid anodizing facilities statewide. By not making this modification, hexavalent chromium would continue to be emitted from chrome plating facilities, which is contrary to the Board’s direction and the intent of the original 45-day package for the Proposed Amendments, as stated in the ISOR released on November 29, 2022. However, chrome plating facilities may use enclosed plating tanks until hexavalent chromium is phased out.

CARB staff are not aware of any control technology that can achieve a zero-emission limit in practice. As stated on page 42 of the ISOR:

“Because control devices do not have 100 percent capture efficiency, some emissions will not be captured by the device and may be released into the atmosphere.”

Even if a control technology were able to reduce stack emissions to zero, fugitive emissions would still be able to escape into surrounding communities through vents, doors, and other openings. CARB staff expressed concerns about fugitive emissions throughout the rulemaking process, including Sections II, III, V, and VI in the ISOR and Sections A and G of Appendix F released on November 29, 2022. Furthermore, these concerns were presented at the January 27, 2023, and May 5, 2023, Board Hearings where the Board expressed its desire to phase out hexavalent chromium.

Due to the high toxicity level of hexavalent chromium, the health impacts of exposure to hexavalent chromium, the proximity of chrome plating facilities to sensitive receptors and

disadvantaged communities, and following an evaluation of air monitoring data, the Board determined in Resolution 23-16 that, based on an assessment of risk, it is necessary to reduce emissions of hexavalent chromium from the chrome plating industry to zero to prevent an endangerment of public health. Please see Master Response 2 in the [Final Statement of Reasons \(ca.gov\)](#) for more information on CARB's authority to regulate toxic air contaminants under Health and Safety Code section 39666. In addition, as discussed in Master Response 6 in the [Final Statement of Reasons \(ca.gov\)](#), an effective alternative is already available for the decorative chrome plating applications, and alternative technologies are in development for functional chrome plating applications. Please also see Master Response 5 in the [Final Statement of Reasons \(ca.gov\)](#), which discusses the requirement that CARB complete two technology reviews that evaluate the status and suitability of replacements for hexavalent chromium in functional chrome plating applications.

CARB staff made no changes to the Proposed Amendments based on the received comments.

### **3. Irrelevant Comments**

258, 260-2, 262, and 263-1.

#### Response 258 et al.:

These comments are outside the scope of this rulemaking, irrelevant, duplicate, or not specifically directed at CARB's Third 15-Day Notice changes; therefore, CARB is not required to respond. CARB staff made no changes to the Proposed Amendments based on the received comments.