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

Executive Officer Cliff –

The Metal Finishing Association of Southern California [MFASC], Metal Finishing Association of Northern California [MFANC] and National Association of Surface Finishers [NASF] have the following comments regarding the March 27 Notice of Public Availability of Modified Text and Availability of Additional Documents and Information on the Proposed Amendments to the Airborne Toxic Control Measure for Chromium Electroplating and Chromic Acid Anodizing Operations [ATCM].

The modified text presents data that is fundamentally flawed, and it is not responsive to the direction the members of the California Air Resource Board [Board] provided to staff at the January 27 meeting. The modified text also presents significant issues that undercut the rationale for a ban rather than an effective alternative such as an emissions-based ATCM. It is critical that the errors be corrected with sufficient time for the public to review and comment on the amendments to the ATCM prior to its adoption.

Flawed Data – The Board's emissions data are flawed, inaccurate, and inconsistent in the record both as originally presented and in the subsequent 15-day Notice of proposed changes. This information is critical in understanding what the ATCM is regulating and what restrictions would be justified.

The Staff has had three years to correct this data and the surface finishing industry has provided continuous input that has not been effectively addressed. Even the "corrections" made to this data as part of the 15-day Notice are flawed and inaccurate. The emissions data are the foundation for the rule, and therefore, critical for all the analysis and justifications that are based on this information. For example, the corrected data inaccurately claims that emission from decorative processes equal those from functional plating processes. Without correct information, the conclusions drawn by the Board will be based on flawed assumptions, presenting a situation where any approval will be subject to potential legal challenge.

This erroneous compilation of data is a fundamental flaw and misunderstanding of the hexavalent chromium processes, despite the fact that industry has repeatedly identified these flaws for the Board and provided real-world actual emissions data from the Board's own records.

In addition, the update appears to claim significant benefits for emissions reductions that may not even be mathematically possible based on the small amount of actual emissions of hexavalent chromium from the finishing industry. Specifically, the Initial Statement of Reasons [ISOR] and Standardized Regulatory Impact Assessment [SRIA] claim reductions of 10.15 pounds per year in 2039 but the latest update to the emissions inventory shows total industry-wide emissions of only 0.19 pounds per year. If the founda-

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tion for the rule's analysis and justifications are flawed and inaccurate, then all the analysis and justifications for the rule are meaningless. Applying inaccurate information to reach a particular conclusion appears to be arbitrary and demonstrates a substantial lack of knowledge and understanding of the industry that will be impacted by this amendment of the ATCM.

The Board must first correct the emissions data and conduct a totally new cost and benefits analysis for the rule based on the corrected information, and then provide an appropriate opportunity for notice and comment of these critical revisions. Otherwise, the Board will have failed to meet its statutory requirements for developing a rule to govern this industry.

The Table I data was included and then almost immediately excluded from the ISOR because stakeholders alerted staff that it was flawed. The staff response was that the table would be corrected in the 15-day document. While it is revised, it remains fatally flawed, Table 2 shows the calculation of the hard chrome source test average but the hard chrome source test average in Table 1 does not match Table 2. There are other issues as well. The reason for amending the ATCM should be clearly and accurately stated before proceeding with rulemaking.

The goal of this rulemaking process has been to develop an accurate picture of the industry's plating emissions. Facilities are required to report to their respective districts, both annual tank amp-hours [amp-hr] and source tested emission rates [mg/amp-hr]. The Board has the authority [we argue, the responsibility] to gather this information from the districts and make this available in the rulemaking. Staff has had over 2.5 years to obtain pertinent data from the local agencies. We have requested data and have only received 2019 amp-hr usage data but have never been provided accurate source test data that may or may not have been part of the staff's evaluation. Repeated requests to staff for source test data have yielded nothing.

The amp-hr data that was released as part of this rulemaking is from 2019. This data is not up to date. Some facilities have gone out of business, others have added HEPA filtration since this data was developed. There are discrepancies between amp-hr data released before and the present time that are on the order of hundreds of thousands of amp-hrs.

It also appears several facilities may have had no reported throughput data, and staff used their exact maximum permitted amp-hrs rather than indicate the Board had no data.

To obtain the most accurate picture of the industry's annual emissions each facility's throughput [amp-hrs] and source tested emissions factor [mg/amp-hr] need to be used. Staff gathered minimal source test information and then simply averaged the few data points to categorize the entire industry. There has not even been an attempt to weight the average with facility amp-hrs [i.e. source test data from higher amp-hr facilities are weighted heavier]. Staff requested source test data from at least one facility. While the facility provided the data, staff did not use it in its computation of the hard chrome average. From our calculations, this information would have lowered the average, and the failure to include it is arbitrary.

There are obvious issues with the "average" source test data, as well. First, there is what appears to be a typographical error of the average hard chrome source test emission factor in the "corrected" table. See Attachment 2, Table 1. Our review of this information found that the average calculated to 0.000588 mg/amp-hr. The value used in the table is 0.0000588 mg/amp-hr. This additional zero yields a dramatic difference in the calculated emissions. Second, the "average" source test emission factor for chromic acid anodize facilities is based on a single point that is impossibly low [0.000000029 mg/amp-hr], something that is not appropriate when performing mathematical evaluation (i.e., an average cannot be based upon a single point). Third, for decorative chrome platers, staff uses either the average of three tests of add-on controls or the default (fume suppressant only) and a maximum allowable default of 0.01 mg/amp-hr. Again, many of these decorative chrome plating facilities now have HEPA, which would dramatically reduce the resulting emissions.

Safe Level - The proposed modifications to the ATCM demonstrated that the Board is firmly entrenched in the attitude that there is no safe level of hexavalent chromium.

The staff presentation to the Board on January 27 contained two slides which referred to a "213 in a million" cancer risk from chrome platers. The "213" value comes from Table F.14(b) in appendix F page 28. Table F.14(b) shows the cancer risk from large hard chrome facilities without controls, and maps the cancer risk using two variables, throughput, and proximity.

Considering there are no facilities in California with throughput of at least 120,000,000, and likely no hard chrome facilities operating without HEPA controls, and no facilities of anywhere close to that size that are 5 meters from a residential source, the Board's allegation of a "213 in a million" cancer risk from chrome plating is not supported. Moreover, its inclusion in the report and as part of this rulemaking leads to false evidence of exposure and is capricious. It serves to generate fear that ultimately results in more pressure to bear on CARB for rule attributes that are not science based (e.g.. A ban prior to technology invention).

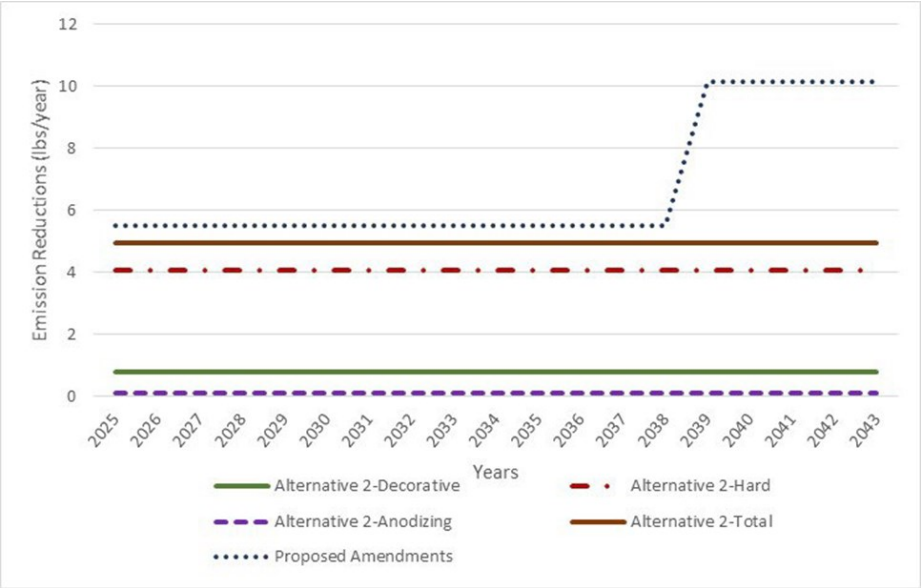
Facility Locations - There is a focus in the documents on environmental justice in AB595 and AB617 communities as justification for the update to the ATCM. However, the provisions provide no relief for facilities who are not located near residential receptors or are willing to relocate within the state to areas not near sensitive receptors. Facilities with cancer risks below 10 in a million (as a function of proximity, amp/hours, and HEPA efficiency) should be encouraged by the rule rather than banned.

Staff and the reports have stated that the concentration is less important than the proximity, but this rule change gives no relief to those facilities that are not located in disadvantaged areas. The proximity issue is repeated in numerous places throughout the reports as justification, with data identifying by percentages the number of facilities near a sensitive receptor or in a disadvantaged area. Notably [but not described in the reports], there exists a remainder of facilities that do not meet the reports' listing criteria, yet the report arbitrarily concludes that all facilities must be banned.

Consideration is given to permanent total enclosures [PTE] in disadvantaged communities in Alternative 2, because capture efficiency for the PTE is estimated to be 100 percent, meaning there is zero emissions. But it is disregarded.

The following graph is based on the estimated emissions of 10 lbs./year, but it hasn't been updated. If any decisions are made based on the SRIA and it has not been updated with correct [or even the new, faulty] emissions estimates then the process is undermined. If the estimated emissions are less, then the $/lb. of emission reduction changes dramatically.

Figure 6.2 Projected Hexavalent Chromium Emission Reductions under Proposed Amendments and Alternative 2



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The ISOR and SRIA baseline levels of 10.15 pounds per year are the theoretically worst-case possible emissions which could exist without the proposed ATCM. The Board is trying to take credit for the distance in improvements the industry as already made by investing in HEPA controls and underutilizing their permits. Relating the cost per pound associated with the SRIA $688M per 10.15 pounds provides an efficiency factor $67.8 million per pound of emission reduction. Relating the $688 to 0.19, provides an efficiency factor of $3.62 billion per pound cost of emission reduction.

The proposed bans are predicated on emerging acceptable alternative processes that will favor a ban only, but not on emerging acceptable alternative control technologies. The failure to adequately consider an alternative control technology is self-serving for a conclusion to ban. It is also arbitrary.

Over the course of the development of the modifications to the ATCM, inaccurate and ever-changing data has been set forth in the documents. This has affected the Board, the press, the public and this rulemaking. It supports a perspective that a decision was already made to impose bans regardless of the facts. It also renders earlier published materials as highly inaccurate and creates a scenario where the original textual information cannot be used to support the original conclusions. The late inclusion of data and some tabular correction does not repair the fundamental changes necessary for the documents to be accurate. A fundamentally flawed record is not substantial evidence, and any decision based upon it would be an abuse of discretion.

The Board must reconsider its decision to ban decorative hexavalent chromium plating, and instead implement an emissions-based rule for all hexavalent chromium plating applications to ensure that emissions continue to be reduced to protect human health and the environment.

Review prior to Ban Date - While we appreciate the additional time for decorative hexavalent chromium plating, a technology review is needed before the ban in 2030 can be implemented. A technology review should consist of a review by knowledgeable participants which would include an assessment of important criteria.

At the January 27 meeting, Board members expressed concerns that decorative hexavalent chromium platers needed more time before the ban. The underlying rationale for the additional time is that trivalent chromium is still not an option for many critical decorative applications, where customer specifications and demands for product performance require the use of hexavalent chromium processes. A 2030 ban is arbitrary, and without providing a viable alternative to the many applications performed with decorative hexavalent chromium plating. Even with the additional time, there is no guarantee that trivalent chromium decorative plating processes will be available for the applications that prompted the extension to 2030.

Accordingly, we urge the Board to modify, at minimum, the proposed modifications to the ATCM to include a requirement for a technology review to be conducted prior to the 2030 ban date to assess the transition to alternatives and determine if more time is needed to phase out decorative hexavalent chromium plating for all applications. Otherwise, the ban will unnecessarily eliminate decorative plating services for many critical supply chains and high paying California jobs for the employees who work there.

Accurate Definition - The definition of “decorative chrome plating” as modified remains inaccurate. It refers only to “a thin layer of chromium” that is “electrodeposited on a Base Material to provide a bright surface with wear and tarnish resistance.” As the metal finishing industry provided in our enclosed comments to staff following the January 27, 2023 Board meeting, “decorative chrome plating” provides many properties beyond a “bright surface with wear and tarnish resistance.” Decorative applications that require hexavalent chromium processes provide many properties that trivalent chromium cannot, including functionality, corrosion protection to make products last longer, wear resistance and hardness to make products work better, product performance, and health and safety protections.

The Board at the January 27 meeting requested that staff consider revising the definition for products where CrVI provides func-

tionality, health and safety protection, or compliance with customer specifications. The modified text does not do so, which appears arbitrary.

It is difficult to understand how the Board can rationally ban decorative hexavalent chromium processes when it excludes the breadth of decorative applications that require the use of hexavalent chromium in the definition of "decorative chrome plating." We therefore urge the Board to not only revise the definition of "decorative chrome plating" in the proposed modifications to the ATCM to include these critical properties consistent with the industry's previous comments, but to include additional and necessary evaluation of these critical aspects of decorative hexavalent chromium in the staff report and the economic analysis.

Emissions-Based Rule - At the January 27, 2023 meeting, Board members expressed some fairness concerns that the smallest emitters of hexavalent chromium, decorative platers, are subject to the earliest bans. Given that emissions from decorative plating operations are only a very small percentage of the overall hexavalent chromium emissions from the finishing industry, the environmental and health benefits from banning decorative applications first would be minimal, yet the potential economic harms resulting from facility closures and job losses would be significant. Consistent with our position on hard chrome platers and chromic acid anodizers who are frequently small businesses, we urge an emissions-based rule. A ban is not necessary. The modified text released on March 27 is not responsive to these concerns. It neither identifies nor considers small decorative platers.

In conclusion: We can accomplish more by working together to protect our communities, further reduce emissions, and enable essential jobs to remain in California. We urge the Board to ensure that the updated CrVI ATCM is based on currently available and proven technologies that significantly decrease emissions and does not lead to a ban of these critical processes, strand assets, export plating and their jobs to other states and countries, and significantly increase air emissions.

We remain committed to working with the Board as we have in each of the previous rulemakings addressing hexavalent chromium, to develop an updated rule that protects public health.

Sincerely,

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