CANADIAN ASSOCIATION FOR SURFACE FINISHING

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December 6th, 2022

Re: Proposed Amendments to the Chromium Electroplating, Chromium Anodizing and Reverse Etching Regulations

The following are the comments on Environment and Climate Change Canada's proposed amendments to the Chromium Regulations from the Canadian Association for Surface Finishing (CASF) on behalf of our members in the finishing industry (electroplaters, anodizing finishers, suppliers and professional service providers). CASF is the only surface finishing industry association in Canada, established to provide support services to its members, numbering over 70 for 2022. It is a volunteer-based organization that relies on the participation and experience of finishers, suppliers, educators and decision-makers within the finishing industry to help our industry prosper. We strive to play an active role by working with all levels of government on regulatory and environmental issues related to our industry.

CASF wants to reiterate our commitment to responsible and best-practice approaches to controlling and mitigating emissions of HVC compounds. As stated in the discussion document, chromium is widely used in the metal finishing industry for performance characteristics. This is very often as a facilitator in support of industries important to Canada's economic independence for both domestic use and for export. These industries include aerospace, automotive (whether combustion engine or electric), transportation, mining and oil & gas. It is crucial to view the use of chromium in metal finishing as a significant reason for success in various components or processes used in these industries. And how Canadian metal finishing operations support positioning these domestic industries with respect to their international counterparts.

Upon review of the consultation document that has been provided CASF comments are provided in order of Table 1 Summary of Proposed amendments 2017 and 2022 from the discussion document.

Application and Control Methods

CASF has no objection to the clarification of the term "use".

CASF has no objection to the removal of allowance of tank covers as a lone control method option.

Release Limits & Testing of Point Sources

With respect to lowering of point source release limits: Reducing point source release limits for HVC from 0.03 mg/dscm to 0.011 mg/dscm for existing point sources and down to a new release limit of 0.006 mg/dscm for new or modified point sources.

It is reassuring that 85% of existing point sources would meet the proposed limits. The commitments made by finishing businesses and their supplier support network continue to make improvements in release reduction methods. The emergence out of the Covid-19 pandemic only into new supply chain challenges compounded by difficulty in filling job positions of increasing responsibilities with qualified persons and limitations to competitiveness caused by inflationary circumstances. The weight of employer responsibilities for worker and community health are already being carried financially as well as at a cost of competitiveness to international counterparts who don't prioritize environmental stewardship.

The challenges faced by finishing business will be experienced through capital costs to accelerate improvements to point source control infrastructure and filtration, as well as the increased frequency of testing to two years consecutive testing followed by a third test after the fifth year. The cost of testing may vary by region or province but ranges from $10,000 per existing point source per test in Ontario to upwards of over $15,000 after surveying our membership. It is something that ranges in part because of the designs and locations of the emissions control equipment (in plant or on roof, scrubber or other). This is before any circumstances of additional testing or verification by a third party.

We need to stress the importance of case-by-case industry requirements as far as tanks containing hexavalent chrome are concerned, the rectifier operating parameters required for successful parts, work intensity of the baths (ampere-hours), the complexities of parts length and geometry that require finishing, and positioning of metal finishing companies near their supply chains and end-users.

The concern is that 3 tests in the first 5 years is too demanding of an industry that has shown a good pace for technological improvements in controlling HVC release. The other concern is what comes after the first 5 years and how these next 5 to 10 years shape decisions made by points in the economic supply chain offering metal finishing with chromium. Facilities with multiple release points would stand to benefit from investing in equipment rather than testing frequency if test results from one release point can provide judgment on the specification of equipment and maintenance schedules needed for the meeting release limits.

Reporting frequency is one way in which the difficulty in succession plans and retention of experienced, knowledgeable employees within the metal finishing industry will be felt. CASF members are still experiencing this problem from perspectives of either maintaining the staffing they had before the pandemic or struggling to grow their operations to the demand of their customers. To the point that several members passed up the opportunity for an audience with ECCC to discuss these very amendments and their comments in person at this year's CASF Conference in Toronto.

Defining 'modified point source' is another aspect of the proposed amendments that makes it difficult to determine which limits companies will be categorized under, existing or modified. We request in advance notice of the details of the upcoming definition.

We propose a case by case review of industry-specific types of uses of chromium finishing to assess trajectory of Canadian finishing operations' success with meeting release limits to avoid redundancy in testing and control procedures that manifest themselves as costs to finishing operations financially and in other ways.

Surface Tension Limits and Maintenance

Concerns with the lowering of the surface tension limit of a solution containing a HVC compound to a value no greater than 33 dyn/cm, when measured using a tensiometer (or 40 dyn/cm when measured with a stalagmometer) amount to uncertainties in transitioning from current limits and equipping in-house laboratories with necessary equipment. Challenges anticipated by finishers include processes that have used PFAS/PFOS-containing compounds in their fume suppressants for lowering surface tension and how to appropriately transition away to non-PFAS/PFOS while ensuring operational success is achieved. Ancillary chrome recovery equipment is utilized by some finishers to recover chrome solution but often enough means that fume suppressants or a category of fume suppressants cannot be used.

We propose more detail in what a maintenance plan for surface tension equipment would require. The proposed amendment could very well require staffing up in a period of difficulty both financially and from a talent pool perspective. We also propose considerations be made for operations reducing material and waste impacts by recovering chrome solution for reuse should they be impacted in their options for fume suppressants to reduce surface tension below 33 dyn/cm.

The surface finishing industry is already one of the more heavily regulated in Canada. CASF members pride themselves on efficient and responsible operations and we look forward to continued correspondence with Environment and Climate Change Canada to ensure our industry and the industries we serve maintain the level of excellence earned to date. We meet a higher standard of environmental accountability than many of our international competitors while delivering equipment and long lasting products to the Canadian marketplace and abroad.

We appreciate the opportunity to comment on the proposed amendments and do really wish we had the November CASF conference as a venue to meet and discuss our industry and trajectory with ECCC engineers and scientists that made arrangements to take part. Unfortunately the difficulty in emerging out of the current economic circumstances for many of our members meant that we had to pivot away from a conference format and focus on our other initiatives.

On behalf of the CASF board of directors and our membership,

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