November 17, 2014

Attn: Docket ID. No. EPA–HQ–OW–2014–0170
Ken Kopocis, Deputy Assistant Administrator
U.S. Environmental Protection Agency
Mail Code: 28221T
Water Docket
1200 Pennsylvania Ave., NW
Washington, DC 20460
Via email to: ow-docket@epa.gov

Re: Docket ID No. EPA–HQ–OW–2014–0170/ Final 2012 and Preliminary 2014 Effluent Guidelines Program Plans and 2012 and 2013 Annual Effluent Guidelines Review Reports

Dear Deputy Assistant Administrator Kopocis:

The Association of Clean Water Administrators (ACWA) appreciates the opportunity to provide feedback on U.S. Environmental Protection Agency's (EPA) Final 2012 and Preliminary 2014 Effluent Guidelines Program Plan and 2012 and 2013 Annual Effluent Guidelines Review Report (hereinafter, together, the "2014 Preliminary ELG Plan"). ACWA is the national voice of state, interstates, and territorial officials (hereinafter "states") responsible for the day-to-day implementation of the Clean Water Act (CWA).

Technology-based controls represent a fundamental and core aspect of the CWA, and have led to many of the water quality successes we see today. Much of the National Pollution Discharge Elimination System (NPDES) program's success for both direct and indirect discharges has been supported by ELGs developed by EPA's Engineering and Analysis Division (EAD). ACWA would like to provide the following comments:

Final 2012 ELG Program Plan

1. ACWA's October 2013 comments on the Preliminary 2012 ELG Program Plan included a recommendation that EPA include the current status of ELGs under development in future Plans. ACWA appreciates the inclusion of the section in the Final 2012 plan that provides a status of the ELGs that are currently in the development stage at EPA (*see* Section 5.4).

Preliminary Category Review of Metal Finishing

2. In the thirty years since the Metal Finishing rule was promulgated there have been drastic changes in the industry. In addition

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to the inherent improvements made by a maturing industry, various end users are demanding a more environmental friendly product. The fundamental chemistry used in the processes has evolved.[1] As ACWA indicated in its comments on Preliminary 2012 ELG Plan, states support a fresh look at the metal finishing industry for several reasons, including the following:

a. New chemical formulas and processes have been developed that result in a different discharge than was present three decades ago when the existing metal finishing regulations were first developed. These include: zirconization,[2] plaforization,[3] citric acid passivation,[4] bonderite,[5] and several others.[6]

b. New technologies, which were not in use when existing regulations were developed.

c. New pollutants of concern from additives that have not been fully evaluated, including nanoparticles. Recently, EPA did act to eliminate PFOS (perfluorooctane sulfonate) as a fume suppressant.

d. New treatment technologies and better controls on existing treatment have resulted in improved pretreatment.[7]

e. The scope of the metal finishing universe is completely different than it was in the 1970's and 80's. There are still large-scale manufacturing operations as well as the more typical smaller facilities with less than 50 employees. At almost every turn regulators are met with a new type of metal finisher that is not clearly addressed in the current rule, such as home hobbyists using at-home metal finishing kits, jewelry stores performing re-plating during repairs, and exterior washing of truck fleet vehicles that include corrosion inhibiting chemicals.

f. There is a desire to merge the metal finishing (40 CFR Part 433) and electroplating (40 CFR Part 413) regulations due to issues in determining applicability, and to move away from a four day average limitation in 40 CFR Part 413. For example, if an electroplating facility subject to 40 CFR Part 413 makes piecemeal upgrades to its plant over time it is difficult to determine at what point the facility becomes a new source and then subject to 40 CFR Part 433. The issue of delineating when a facility becomes a new source is discussed below.

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[1] Some examples of the changes: 1) Solvent-based coatings are moving towards water-based coatings; 2) Lead solder is being replaced with lead free alternatives that can be heavy in zinc; 3) Reuse systems to minimize (or eliminate) waste water; 4)Shift from hexavalent chromium to trivalent chromium and other materials; 5) Evolving diversification of coatings that utilize precious metals and organic acids; and 6) Nanoparticle development for the use as coatings.

[2] *See e.g.*, http://www.metalfinishing.com/webinar/98/zirconization-update-introducing-dubois-chemicals-duratec-110-nonphosphate-cleaning-and-pretreatment-solutions-for-ferrous-and-nonferrous-parts/-Durgms.

[3] *See e.g.*, http://www.cc-lc.com/ .

[4] *See e.g.*, http://citrisurf.com/wave.htm and http://citrisurf.com/cs2050info.htm.

[5] *See e.g.*, http://www.henkelna.com/press/2005-5834-henkel-introduces-worlds-first-nanoceramic-surface-1838.htm.

[6] *See also*, "Going Low Temp" *available at* http://www.pfonline.com/articles/going-low-temp; and "Pretreatments: The Next Generation" *available at* http://www.pfonline.com/articles/pretreatments-the-next-generation.

[7] *See e.g.*, http://www.plymouthtechnology.co/plymouth-mrs.

The four day average is also problematic because it is based upon four consecutive sampling days. However, the samples can be months apart or on consecutive days. There is no fixed period like in other ELG limits. Total toxic organics are seldom used, yet there is a requirement to develop a toxic organics management plan, or to monitor.

3. Small insignificant operations such as: the use of Bonderite wipes or etching pens prior to painting; or rhodium plating of white gold at jewelry stores, should be excluded, or specifically included only after considering small business impacts. It is our understanding that these operations are technically both core metal finishing processes and subject to categorical regulations. Theoretically, if any of the other 40 types of wastewater are discharged (e.g., cleaning or rinse water) then this type of facility would be a metal finisher. This categorization is problematic as it could greatly expand the number of categorical industrial users if these small operations were consistently regulated as metal finishers.

4. Information related to tank passivating needs clarification across all applications, not just pharmaceutical manufacturing.

5. **Clarification on Existing Source vs. New Source:** Implementation of the existing metal finishing rule often requires an enormous amount of effort in determining if a facility constitutes an existing source or a new source. For electroplating in particular, the production lines are often a series of tanks. This configuration readily allows the facility to upgrade the entire production line "tank-by-tank" thus avoiding a "new source" classification. The question of the piecemeal replacement was previously addressed in the 1980's and a 1988 Federal Register notice contains EPA's response at the time. The examples EPA provided at that time represent extremes that are impractical to use as a basis for determinations.[8] EPA's assertion that "substantially replaces" is redundant to the current language of "totally replaces" has caused particular confusion with regards to the metal finishing industry. Many metal finishing operations are extremely small and do not employ individuals trained specifically in environmental regulations as such the rules are taken at face value. Thus, the definition of new source (40 CFR Part 403.3(m)(1)(ii)) is typically interpreted by the industry as replacing every single piece of equipment at the same time to trigger the new source requirements. EPA states that the new source requirements were intended to apply where new construction allows for flexibility to incorporate new pollution control technology. For metal finishers in particular, this delineation is exceptionally difficult to implement. This in turn leads to variability in implementation across the regions.

6. Most states also support the concept of requiring all existing users to meet new source standards after a predetermined period of time, as was recently proposed in the Dental Amalgam ELG. EPA should adopt a sunset provision on the 40 CFR Part 413 electroplating rule that would require eventual compliance with the 40 CFR Part 433 Metal Finishing rule.

7. Making a categorical determination of a potential metal finishing industry can be very

[8] 53 Fed. Reg. 40601 (October 17, 1988).

resource intensive. The following are some examples of grey areas that have led to inconsistencies in classifications across the country:

a. **Etching vs. Cleaning:** The rule of thumb often used is to check the amount of metals before and after the process. If metals are increased, then it is deemed an etching process. However, states are now encountering situations where a galvanized steel subcomponent will leach zinc into the rinse water even if there are no detergents or dispersing agents added.

b. **Coating vs. Absorption:** The process of washcoating is used in the manufacturing of catalysts. In this process, the active catalyst formulations (wash coats) are manufactured from high purity alumina (Al_2O_3) or titania (TiO_2) raw materials. Precious metals (Pt, Rh and/or Pd) in the form of salts are applied to the wash coats using solutions purchased from precious metal suppliers. The salt is said to be absorbed into the oxide layer and no chemical reactions take place. Typically no wastewater is generated by this process, but often these facilities perform one of the forty ancillary processes on site that would generate wastewater.

c. **Phosphate Coating vs. Phosphate Cleaning**: In March 1995, draft guidance for distinguishing between phosphate coating and phosphate cleaning was circulated.[9] It does not appear that this document was ever adopted or endorsed by the ELG group. However, it is occasionally used by industries to contest the categorical determination.

8. ACWA recommends that EPA review all metal finishing categorical determinations completed by the agency in order to better understand the implementation issues.

9. ACWA recommends that EPA send ELG personnel into the field during routine investigations of metal finishers to obtain a better understanding of the real world processes.

10. When a metal finisher samples for Total Toxic Organics (TTO), it is typically out of an abundance of caution. With the reformulations of the process chemistry, this list should be revised to reflect those toxic organics that are potentially present in modern day processes. ACWA recommends that EPA conduct a thorough review of the Total Toxic Organics (TTO) list and make revisions and additions where necessary.

Other Comments

11. States remain concerned by the reduction of EPA staff working on ELGs and pretreatment standards. This reduction has impacted the Agency's ability to address ELGs and pretreatment standards that are in need of updates and/or would benefit from additional

[9] "Draft Guidance for Distinguishing between Phosphate Coating and Phosphate Cleaning Operations for the Purpose of Regulation under 40 CFR, Part 433 – Metal Finishing." (March 23, 1995).

guidance and technical support materials. ACWA recommends that EPA increase the staff allocated to working on ELGs.

12. The 2012 and 2013 Annual Effluent Guidelines Review Reports were released in conjunction with the 2014 Preliminary ELG Plan. This highlights a core problem with the process in that EPA shares information too late in its process, particularly the valuable information contained in the Annual Review Reports. ACWA recommends that EPA consider releasing the factual information contained in the Annual Review Reports earlier in the planning process.

13. ACWA commented on the 2012 Preliminary plan regarding the lack of timeliness of the development and publication of that plan. ACWA appreciates the lost time that EPA has made up by publishing the 2014 Preliminary Plan (released in September 2014) just a year following publication of the 2012 preliminary plan (released in August 2013). ACWA recommends that EPA continue this progress and make up the remaining lost time to get the planning schedule back on track where preliminary plans are published the year prior to the year addressed in the plan.

14. ACWA commends EPA for the new annual review methodology used in the 2012 Annual Review Report, specifically the use of the following 6 new methodologies: identification of industrial pollutants in sewage sludge, use of the Industrial wastewater treatment technology (IWTT) database, review of chemical action plans' (CAPs) chemicals, review of air regulations, review of Toxics Release Inventory (TRI) sectors expansion, and review of analytical methods. Use of these methods significantly expanded the information available upon which to base ELG planning decisions beyond the TRI, and provided credible evidence that supported new determinations for detailed study, preliminary category review, and no action, while in other cases supported previous determinations for no action at this time. ACWA encourages EPA to continue use these new methodologies.

ACWA appreciates EPA's consideration of the above-mentioned recommendations and encourage careful consideration of any individual comments submitted by states. We look forward to continued discussion with EPA on these issues. Please contact ACWA's Executive Director Julia Anastasio at janastasio@acwa-us.org or (202) 756-0600 with any questions regarding our input.

Sincerely,

Michael Fulton
Director, Water Quality Division, Arizona DEQ
ACWA President