Advice & Counsel

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So, What's New? Finishers Face Difficult Issues in 2005

Dear Advice & Counsel,

With 2005 at hand, what do you see in your crystal ball?

Signed, Sue Sayer

Dear Ms. Sayer,

If we first take a look back, we can see a significant amount of progress that the industry has made in making the working climate in metal finishing conducive to surviving. For example, the Metal Products & Machinery (MP&M) rule threatened to put 50 percent of metal finishers out of business and we averted that disaster, albeit at a significant cost to the participants in the battle. We also saw the end (we hope) to OSHA's efforts at imposing a draconian "Ergonomics Rule." Another "victory" was a change in the Chromium MACT that allows for the use of fume suppressants in complying with the regulation (of course most companies have already installed much more sophisticated, expensive devices by now, so "victory"may be an over-statement.

Unfortunately, for every step we take forward, we are hauled backward by another governmental agency. At the same time, companies from outside our borders are relentless competitors that do not necessarily need to comply with the same regulations, and they have far lower labor costs. As an illustration, our local paper (the Chicago Tribune, Monday Dec. 27, 2004) printed a photo on it's front page of a factory worker in China that is housed in a worker's dormitory. The worker puts in 11-12 hours per day for 11 months per year and earns a total of $500/year!

Issues facing our Industry for 2005

- EPA continues to consider all metals as being "Persistent, Bioaccumulative and Toxic (PBT)." As a result TRI reporting thresholds are reduced almost on an annual basis. The fact that EPA considers all metals as PBT, filters into most every regulation being considered or promulgated.

- California and European Union members are on a campaign against the use of nickel based upon IARC and NTP listing nickel metal and nickel compounds as being carcinogenic (no labels on our coins yet).

- OSHA has proposed lowering the hexavalent chromium exposure PEL from 52 down to an action level of 0.5 micrograms per cubic meter of air. A quick list of operations that may employ hexavalent chromium is provided in the accompanying figure. This regulation will impact companies that do not do any chromium plating, because simply removing a barrel from a chromating tank can cause enough splashing to produce emissions that exceed the proposed standard. We are not aware of any other country in the world with such a low exposure limit.

- "Erin Brockovitch" may have been an entertaining movie, but the real Erin and other legal firms are continuing to look for deep pockets involving chromium.

The business climate is challenging at the present time. Surface finishing firms had a mixed combination of success and failure in 2004. The economy needs to continue to improve and the regulators need to realize that real science, not hysteria and political pressure need to be employed in promulgating regulations.

For 2005, I see more of the same (as in 2004). 2006 will be a pivotal year for our industry. If you can spare a dime (or more), send it to the industry Government Relations Fund.

- Chrome Plating (hard and decorative)
- Chromic Acid Anodizing
- Chromate Conversion Coatings (cadmium, zinc, aluminum, magnesium,)
- Passivation
- Anodizing Seals (sodium dichromate and dilute chromate)
- Chromated Deoxidizers
- Activators (plastics)
- Chrome Stripping (electrolytic)
- Anodizing Dyes (rare, but in existence)
- Chromic Acid Seal (phosphating)
- Abrasive Blasting (stripping chromated coatings such as cad)
- Grinding (stainless steel and chrome plating)
- Color Dipping of Copper Alloys
- Silver Plating Post Treatment
- Electroless Nickel Post Treatment
- Painting with Chromated Primers and Topcoats
- De-waxing (chrome plating and anodizing, poorly rinsed parts)
- Welding of Stainless and High Strength Steels (overhaul & repair)
- Acid pickling of magnesium
- Anodizing of magnesium
- Etching of ABS using chromic acid
- Passivation of brass, tin, silver in dichromate based solutions
- Wastewater treatment of hexavalent chromium bearing rinses
- Additions of chromic acid or other Cr^{+6} bearing salts to process baths
- Maintenance & repair of tanks, scrubbers and vessels containing Cr^{+6}
- Chromic acid activating dip prior to decorative chromium plating
- All rinses bearing Cr^{+6}
- Maintenance of anodes in chromium plating (stripping, cleaning, changing)