Advice & Counsel

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Q&A on the Metal Products & Machinery Regs

Q. Our recent article on the proposed Metal Products & Machinery (MP&M) regulations has raised numerous questions and issues in the industry:

Q. Our business is currently regulated under 40 CFR section 433 (metal finishing). Do these proposed regulations impact us in any way?

A. Oh boy, do they impact you. If you are not a "jobshop," your company would be required to comply with these regulations within three years after they are finalized. If you are a jobshop (more than 50 percent of your work is for outsiders), these regulations have no immediate impact. There is major concern, however, that if these regulations are finalized as proposed, they would set a "floor" for future regulatory actions within the EPA for all jobshops.

Q. What technologies has EPA identified as being capable of meeting these discharge standards?

A. The technologies are not significantly different from those you are currently using:

1. In-plant pollution prevention
2. Alkaline chlorination for cyanide
3. Neutralization using lime
4. Clarification

Q. We are using those technologies now and are having a hard time meeting 433 standards. How can EPA say this technology will meet numerical standards that are 10 to 50 times lower?

A. I have no idea. We'll need to study their data to get an answer.

Q. Can alkaline chlorination be fine-tuned to meet 0.02 mg/L limits?

A. No.

Q. Can cyanide in discharges be monitored down to 0.02 mg/L?

A. The limit of detection published in EPA's analytical procedure for cyanide (colorimetric quantitation) is 0.02 mg/L. There is an alternate colorimetric procedure using an "autoanalyzer" that costs around $30,000. This alternate procedure has a published limit of detection of 0.005 mg/L. This is the procedure EPA expects the industry to use to monitor compliance. Our company has such an analyzer and, based on our experience, we would need to modify the colorimeter cell to be able to detect 0.005 mg/L.

Q. If alkaline chlorination cannot meet 0.02 mg/L, how were the companies that EPA used to establish the regulations on able to meet these numbers?

A. According to an EPA official, the companies they sampled and tested met those limits at the "end of pipe," after "blending" the treated cyanide waste with other non-cyanide waste. The last time such a practice was described to me, I called it "dilution," which, of course, is against EPA regulations that forbid the addition of "clean" water for the purpose of achieving compliance.

Q. I heard there is some *de-minimis* cut-off for companies that have low flow. Is this correct?

A. Companies that would normally be regulated under MP&M, but discharge less than one million gal of water per year would be exempt. That calculates out to about 3,700 gal/day. This number is too low to allow many currently regulated metal finishers to take advantage.

Q. What justification did EPA use to pull currently regulated metal finishers into MP&M?

A. None that I have been able to identify. EPA does have the authority to modify the regulations if it can justify them on a technological basis.

Q. Why are non-pollutants such as suspended solids, iron, and aluminum regulated under MP&M?

A. EPA felt it was being helpful by regulating these as "surrogate indicators" that a system was operating at peak efficiency. EPA did not realize that by regulating a non-pollutant, a company in violation of the standard (for discharging only a slight excess of aluminum) may be listed in the newspaper as a significant violator and can have the environmental activists on its doorstep.

Q. What about oils and greases?

A. EPA felt its data showed that when oil and grease were low, toxic organics also were low, so again used its data to create oil and grease as a surrogate indicator for organics. Because metal finishers are already regulated for total toxic organics, this seems to be an unnecessary indicator at best. POTWs can readily handle 100–300 ppm of oil and grease, without pass-through.

Q. The proposed regulations assume that I can recycle my cutting fluids continuously through

sterilization (pasteurization). Is this true?

A. It may be true, but no one knows the long-term implications of such practices. There is some concern about possible "legionnaires" conditions developing in recycling tanks for cutting fluids, especially if pasteurization methods are faulty or break down. Metal finishing shops are not as pristine as dairies and we have seen dairies suffer breakdown of the pasteurization process, resulting in thousands of illnesses.

Q. How many facilities did EPA sample vs. the regulated population?

A. EPA sampled 27 sites for a regulated population of around 10,000. As I understand it, only one metal finishing facility was included in the database. Data were thrown out from facilities that EPA felt were not well-designed or well-operated. We are concerned that the thrown-out data may, in fact, represent real life, and would have moderated the proposed regulations, if the data were included in the calculations.

Q. What would it take to meet these numbers, and what would it cost?

A. A good answer would require all kinds of information to be submitted. In general, cyanide would have to be removed from the facility or totally recycled. A conventional pretreatment system would need to be modified to use microfiltration and ion exchange to consistently meet the low metals limits. Oil and grease would probably need to be removed through carbon filtration. The installed cost would depend on the flow rate, but probably would be $500,000 to $750,000 for a small- to medium-sized facility.

Q. What about credit for the concentration of regulated parameters in the water I bring into the plant?

A. No provision for intake credits is in the proposed regulations. You would have to remove whatever pollutants were in your intake water to levels below the proposed limits.

Q. I don't see lead on the regulated metals list. What gives?

A. EPA did not find significant amounts of lead in the 27 plants they tested, so they assumed none of the 10,000 other facilities or currently regulated metal finishers had any lead in their waste streams. Need I say more?

Q. If EPA passed these regulations without studying facilities that even remotely resemble my company, what recourse do I have?

A. 40 CFR 125.31(b)(3) provides for the issuance of an administrative variance based on "fundamentally different" factors. Basically, it would allow you to obtain different standards if you can prove that your facility is fundamentally different from any of those EPA studied in promulgating these regulations. My advice is to start this process soon after the regulations are finalized, because the line will quickly become awfully long.

Q. What is AESF doing about this?

A. AESF has joined NAMF and MFSA to form the Government Advisory Committee (GAC). This committee recently was elevated to "board" status, answering directly to the AESF Board of Directors. Its mission is to review proposed EPA regulations or policies and respond with information and data in an effort to achieve regulations with which the metal finishing industry can comply and still stay in business.

The GAC will use the volunteer resources of all three organizations to work through the comment process and the Common Sense Initiative (CSI), in an attempt to have sanity prevail. The GAC has also retained professional services to review the EPA database and background document, in an attempt to identify data and information that EPA may have misused to create these regulations. Other organizations, including those representing POTWs, have joined in the effort to make these regulations more reasonable.

Q. What can I do to help?

A. 1. DATA! We can argue until we are blue in the face that something is not right, but until we back up what we say with data, no one will listen. If your company has data that dispute the data EPA used, we need it badly.

2. COMMENT! Your company (and/or you) should comment on these regulations and the impact they will have. Do not assume that just because AESF or the GAC will make comments that all is well, or that you can sit back and wait for the change. You can also send your comments or special information directly to me for incorporation into the official comments of the GAC.

3. ACTIVATE! NAMF has an annual trip to Washington, DC to speak to legislators about the impact of regulations on the survival of the metal finishing industry. We need as many people as possible to join us. Your presence is needed. A registration form for the September 18–19 Capitol Hill visits is included in this issue. If you can participate, please FAX this form to the Government Relations Office no later than September 11. FAX to 202/338-5950.

4. SEND MONEY! The activities of the GAC cost money. Donate what you can to the AESF Government Relations Fund.

5. JOIN! If your company is not a member of NAMF, or MFSA (as appropriate), it's time to seriously consider joining. If you, as an individual, are not a member of AESF, send in your application now. EPA may listen a whole lot better when more voices are making comments that make sense. o