ARTICLES

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Are You Properly Reporting Form R Threshold Determinations for Electroplating Baths?

Service

Environmental

The Environmental Protection Agency (EPA) has recently acted to enforce the reporting obligation contained in Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) that applies to electroplating processes. Although the EPA's enforcement position is not new, it is of particular concern to captive and job shop electroplaters that may not be calculating and accurately documenting threshold determinations and releases of hazardous substances on Form R.

Reporting Requirements

Section 313 of EPCRA, and EPA's implementing regulations at 40 C.F.R. §§ 372.22 and 372.30, require the reporting of releases of listed hazardous substances by the owner or operator of a facility that has 10 or more full-time employees; is covered by certain SIC codes; meets one of the criteria set forth in 40 C.F.R. § 372.22(b)(1)-(3); and that manufactures, processes or otherwise uses a toxic chemical in an amount exceeding an applicable threshold quantity of that chemical during a calendar year. If a facility is required to report such releases, a toxic chemical release inventory form (Form R) must be submitted to EPA and to the state.

In the process of electroplating, intermediate compounds are manufactured as the metal is brought into solution. Copper, nickel, zinc and chromium are all processed at the anode of the plating bath and chemical compounds are manufactured via in-bath chemical reactions. The mass of these manufactured compounds must be calculated in determining the mass of toxic chemicals manufactured, processed or otherwise used for threshold reporting determinations.

These chemical reactions and the compounds formed are well documented in plating manuals but are often overlooked in the threshold calculations for Form R reporting. The results are underreporting and inaccurate reporting of Form R emissions. For example, in addition to the calculation of usage for listed EPCRA Section 313 toxic chemicals in purchased mixtures or trade name products, it is necessary to consider the compounds manufactured in the electroplating bath, such as nickel reacting with sulfate ions to form nickel sulfate and nickel reacting with chloride to form nickel chloride, both of which are included in the nickel compounds toxic chemical listing. The total pounds of nickel compounds manufactured is the sum of nickel sulfate manufactured, in pounds, and nickel chloride manufactured, in pounds, within the plating bath. Failing to include these manufactured compounds in your Form R threshold determinations could result in an incorrect threshold determination.

What This Means to You

If you have been incorrectly calculating the threshold determinations, you may report these violations under the EPA audit policy, "Incentive for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations"; the similar "Small Business Compliance Policy" (applicable to facilities with 100 or fewer employees); or similar state audit privilege and immunity laws. These programs provide for significant penalty mitigation when program conditions are met, such as systematic discovery of the violation, voluntary discovery, prompt disclosure (within 21 days of discovery), discovery and disclosure independent of government or third-party notice, prompt correction, prevent recurrence, no repeat violations and cooperation.

Contact Us

For more information on electroplating reporting requirements, contact Donald P. Gallo or another member of Husch Blackwell's Technology, Manufacturing & Transportation team.