

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 21 1997

Mr. James T. Dufour
Attorney and Counselor at Law
819 F Street
Sacramento, California 95814

Dear Mr. Dufour:

Thank you for your letter of December 24, 1996, in which you inquired about the regulatory status of your client's ion exchange resin waste. Specifically, you wished to know if this ion exchange resin waste used in the treatment of electroplating rinsewaters is classified as EPA Hazardous Waste No. F006 (wastewater treatment sludge from electroplating operations).

In your description of your client's process, you state that your client performs electroplating operations. Rinsewaters from these operations are sent to the ion exchange filter in question, which produces "ultrapure water for use in the electroplating operation." You state that the water is reused in the process, and discharged, but if the water were to be discharged, it already meets Clean Water Act discharge requirements for the local Publicly Owned Treatment Works (POTW).

In previous regulatory interpretation letters, the Agency has stated that such ion exchange resins are classified as F006 waste. The letters you cite (letter to Compliance Recycling Industries dated May 5, 1987 and letter to U.S. Filter Recovery Services dated July 21, 1994) both state the 40 CFR 260.10 definition of sludge as "any solid, semisolid, or liquid waste generated from municipal, commercial, or industrial wastewater treatment plant, water supply treatment, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant." In both letters, ion exchange resin is classified as an F006 waste even though the purified water can be recycled to the process. In your case, the definition of sludge is, again, tied to the type of unit in which the waste was generated, so the Agency interpretation is unchanged. The fact that, as you state, the ion exchange resin is not necessary to remove hazardous constituents before discharge does not affect this interpretation.

Please be aware that under Section 3006 of the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. Section 6926) individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the Federal program. When States are not authorized to administer their own program, the appropriate EPA Regional office administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA (42 U.S.C. Section 6929) States retain authority to promulgate regulatory requirements that are more stringent than Federal regulatory requirements. Pursuant to 40 CFR 260.20 and 260.22, you may petition to have your client's waste delisted if you think it poses no threat to human health and the environment.

Thank you for you inquiry. If you have any further questions or comments, please contact Mr. Ron Josephson of my staff at (703) 308-8890.

Sincerely,

David Bussard, Director
Hazardous Waste Identification
Branch

December 24, 1996

Mr. David Bussard, Director
U.S. EPA/Office of Solid Waste
Hazardous Waste Identification Division
M/C 5304W
401 M St. Southwest
Washington, D.C. 20460

RE: ION EXCHANGE RESIN CHARACTERIZATION

Dear Mr. Bussard:

The purpose of this letter is to obtain a regulatory interpretation on behalf of an electronics manufacturing firm client concerning the characterization of ion exchange resins as F006 listed hazardous wastes when they are used for treatment of rinse waters used in an electroplating process. In the process in question, the electroplating rinsate does not require pollution control treatment because it does not contain any hazardous constituent which would preclude discharge untreated to the POTW. Furthermore, it is not discharged but is reused in the process. The process water stream is treated by the ion exchange resin system solely for the purpose of producing ultra-pure water for reuse in the electroplating operation. It should be noted that ion exchange resin systems are commonly used to produce ultra-pure water.

We are aware that EPA has on two occasions characterized ion exchange resins treating electroplating solutions as F006 hazardous wastes subject to RCRA based on the definition of sludge in 40 CFR 260.10 (letter to Compliance Recycling Industries dated May 5, 1987 and letter to U.S. Filter Recovery Services dated July 21, 1994). A sludge is "any solid, semisolid, or liquid waste generated from municipal, commercial, or industrial wastewater treatment plant, water supply treatment, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant."

The 1987 letter clearly states that the ion exchange resin which removes metals, chromates, and cyanide meets the definition of sludge and is therefore an F006 hazardous waste. In the 1994 letter, EPA states that the resin meets the definition of sludge because it qualifies as a pollution control device as it acts to remove contaminants from wastewaters. These interpretations are based on the fact that the ion exchange resin is necessary to remove hazardous constituents of the wastewater before being discharged, therefore defining the resin not only as a pollution control device, but also a wastewater treatment unit. Ion exchange resin is more commonly used to produce ultra-pure water than to treat wastewater.

Wastewater treatment unit is defined in 40 CFR 260.10 to mean a device which:

1. Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
2. Receives and treats or stores an influent wastewater that is a hazardous waste as defined in 261.3 of this chapter, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 261.3 of this chapter, or treats stores a wastewater treatment sludge that is a hazardous waste as defined in 261.3 of this chapter; and
3. Meets the definition of tank or tank system in 260.10 of this chapter.

The ion exchange resin in question at our client's facility is not part of a wastewater treatment facility subject to the Clean Water Act because the influent electroplating rinse could be directly discharged to the POTW before entering the ion exchange resin. Therefore, we believe that the influent water to the subject ion exchange system is not a wastewater and the resulting resins do not exhibit any hazardous characteristics, including exceeding the toxicity characteristic regulatory limits for any metals.

The subject ion exchange resin is necessary to produce an ultra-pure electroplating rinse water to meet process water requirements in a manufacturing operation. In essence, the ion exchange resin is a water purifying step in a manufacturing process and not a pollution control device or wastewater treatment.

In conclusion, since the ion exchange resin for electroplating solutions is utilized solely for the purpose of meeting influent water standards to a manufacturing process and not for removing hazardous constituents before discharge (hence not pollution control or wastewater treatment), it is not a wastewater treatment unit and therefore should not be subject to an F006 wastewater treatment sludge listing.

We would appreciate your interpretation to clarify the characterization of this particular ion exchange system spent resin. If you have any questions, please contact us at your earliest convenience.

Very truly yours

James T. Dufour