

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

AUGUST 23, 1989

C. T. Phillipp, P.E.  
President  
Enviroscience, Inc.  
P.O. Box FF  
Hot Springs, Arkansas 71902

Dear Mr. Phillipp,

This letter responds to your July 24, 1989, correspondence concerning the regulatory status under the Resource Conservation and Recover Act (RCRA) of your reclamation process. This process, known as the "Rostoker process," reclaims metals from F006 electroplating sludges and generates a slag which you claim may be used as a substitute for aggregate. As you know, EPA is very interested in the environmentally protective recycling of hazardous wastes and has exempted certain legitimate recycling activities from permit requirements as a means of encouraging such activities.

In determining the regulatory status of your process, several aspects must be considered separately. These aspects are: 1) the reclamation of metal values from the F006 electroplating sludge, 2) the use of the slag (a residual of the reclamation process) as a substitute for aggregate, and 3) the use of F006 electroplating sludge as an ingredient in the production of aggregate.

Insofar as the Rostaker process reclaims metal resources from electroplating sludges, it appears your process may be an effective and legitimate reclamation activity that would not require a RCRA hazardous waste treatment permit. However, EPA cannot give a definitive determination of its regulatory status due to case-specific variables upon which such a determination would depend. I emphasize that the regulatory status for the reclamation process is a case-specific determination, a determination which should be made by the appropriate EPA Regional Office or authorized State regulatory agency. This determination would depend on whether the wastes processed by your recovery system contain recoverable quantities of metal, and whether the recovered alloy is truly a product (your letter only refers to the potential markets for the alloy and did not provide examples of cases where an alloy was actually purchased and used as a substitute for raw materials). Pursuant to 40 CFR 261.2(f), respondents in actions to enforce RCRA regulations who claim that a certain material is not a solid waste must demonstrate (by documentation) that there is a known market or disposition for the material.

In evaluating the regulatory status of the slag generated by the recovery of metal resources from electroplating sludges, the fact that the slag can be used as a substitute for aggregate is not determinative. Here again, on a case-specific basis, the slag must be demonstrated to be analogous to the commercial product for which it is substituting to lose its status as a hazardous waste. This demonstration must compare the constituents in the waste to the constituents in the product. The slag would not be analogous to the product (in this case, aggregate) if it contains hazardous constituents not found in the product, or if it contains hazardous constituents at levels significantly greater than those found in the product.

Assuming that such a demonstration is not made, the slag would be derived from the treatment of F006 electroplating sludge and, thus, would itself be F006 hazardous waste (whether regulated or not, the Rostoker process, as well as all reclamation activities, meets definition of treatment found at 40 CFR 260.10). Also, this demonstration would not involve an analysis of the leachate generated by the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP-based treatment standards for F006 electroplating sludges were promulgated to set the levels to which such wastes must be treated before they may be land disposed in a hazardous waste landfill. These treatment standards are not indicative of whether the material is a hazardous waste.

The final aspect to be evaluated is the case where the F006 electroplating sludge is used as an ingredient to produce aggregate. You acknowledged in your letter that there are cases where the F006 electroplating sludges do not contain recoverable metals. In such cases, you state that the slag (i.e., aggregate substitute) would be the only “product” and that the principle economic consideration would be the savings to the generator on RCRA disposal costs. This activity, however, would constitute regulated treatment and would require a permit, unless you (or the generator) could demonstrate that the F006 waste is analogous to a raw material normally used to produce synthetic aggregate. If legitimate, the electroplating sludge would not be a solid waste and therefore neither the material nor the process would be subject to RCRA regulation. Again, the composition of the F006 sludge would be compared to the composition of the raw material it is replacing.

Another possibility for the slag from the reclamation process is to petition the Agency to have it “delisted” (i.e., removed from the listing as a hazardous waste). This petition is found at 40 CFR 260.22. Should such a petition be granted, the slag would not be a hazardous waste and would not be subject to hazardous waste regulation.

There is one other concern to note in evaluating your reclamation process, regarding the intent of the activity (i.e., whether the intent is to recover metal values or, rather, to treat and dispose of hazardous metals). Your potential market seems primarily to be electroplaters, i.e., generators of F006 electroplating sludge, and your marketing strategy appears to focus on reducing the costs of compliance with the Land Disposal Restrictions by providing an alternative to regulated treatment and disposal. While the Agency strongly encourages environmentally protective resource recovery and recycling, there is a concern that certain hazardous wastes may be “sham recycled” by a process that, given a different hazardous waste, would be considered legitimate recycling (thus the need for case-specific determinations). Because F006 electroplating sludges vary in constituent concentrations at different

sites, and indeed often vary with different batches at the same site, the Agency is somewhat concerned that an electroplater, whose business interests lie in electroplating rather than metals recovery, may view the Rostoker process as a means of cheaply disposing of their hazardous wastes more than as a means of recovering valuable metals. With such a view, F006 wastes that are inappropriate for the reclamation activity may be processed regardless. Such an activity would be treatment of a hazardous waste and would require a RCRA Part B permit. For example, in cases where electroplating sludges containing high levels of chromium (which you state is not recoverable by the Rostoker process) and negligible amounts of recoverable metals are processed, the Agency would determine that the principal activity is to treat and dispose of the chromium and would require a hazardous waste treatment permit (a RCRA Part B permit).

Should you have further questions regarding the regulatory status of your process at a specific site, I encourage you to contact the appropriate Regional office or authorized State regulatory agency. Also, the regulatory interpretations provided in this letter apply to Federal regulations. State and local regulatory agencies may have regulations that are more stringent than those at the Federal level. You should contact the appropriate State regulatory agency to determine what, if any additional regulations may be applicable in any particular State. If you should have questions regarding the Federal regulation of reclamation/recycling activities, you should contact Mitch Kidwell, of my staff, at (202) 475-8551.

Sincerely,

Sylvia K. Lowrance  
Director  
Office of Solid Waste