

9441.1990(14)

CHEMICAL ETCHING PROCESS-HAZARDOUS WASTE IDENTIFICATION

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

JUN 12 1990

MEMORANDUM

SUBJECT: Regulatory Status of Wastes from Piedmont Manufacturing
Co., Altavista, VA

FROM: Sylvia K. Lowrance, Director
Office of Solid Waste

TO: Stephen R. Wassersug, Director
Hazardous Waste Management Division
US EPA Region III

As you requested, we have evaluated the process descriptions for Wastestream #4 at Piedmont Manufacturing Company. Our review has included all of the materials provided by Sherman Latchaw of EPA Region III to David Topping of my staff, as well as the discussions in the December 8, 1989, meeting with representatives of Piedmont Manufacturing and the State of Virginia held at EPA Regions III's offices. As a result of this review, we agree with your determination that Wastestream #4 is EPA Hazardous Waste No. F006.

The major issue is whether the Piedmont process is, in fact, a "bright dip" (i.e., a chemical etching) process. While Piedmont's previous correspondence describe the process as "bright dip", they have subsequently stated that this was an inaccurate characterization. Further, Piedmont has cited the record for the F006 listing--in particular the Effluent Guidelines Electroplating Document that was referenced in the Listing Background Document--as evidence that the process is not a "bright dipping" operation. Piedmont's discussion primarily centers around the amount of material removed from the brass parts during their operation (on the order of 1/10 mil) as compared to a statement in the document that "...chemical etching is the same as chemical milling except that relatively small amounts (1-5 mils) of metal are removed."

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Our conclusion that the Piedmont process is an etching operation is based upon the nature of the physical change that occurs when the brass parts are dipped into the bath. Specifically, metal is removed, or etched, from the surface, resulting in changes in both appearance (brighter) and physical properties (better adhesion to rubber) of the surface. We believe that this interpretation is consistent with the background document cited by Piedmont (copies of relevant portions attached).

The document begins with a general description of "chemical milling and etching" and states that the general classification includes the specific processes of "...bright dipping..." among others. In the discussion of etching, the bright dipping process is specifically described and is consistent with the process that is used at Piedmont. Further, we believe that the process used to alter the surface of the brass parts at Piedmont is commonly understood to be a bright dipping/etching process. (The fact that metal is being etched from the brass parts is somewhat corroborated by Piedmont's indication that lead is present in significant concentrations in the wastewater treatment sludge from this operation and that the parts (360 brass) appear to be the only source of lead in the operations.)

Should you have any questions regarding this interpretation, please contact David Topping of my staff at (202) 382-7737.

Attachments