



January 11, 2010

Mathy Stanislaus
Office of the Assistant Administrator of OSWER (5101T)
EPA West Building
1301 Constitution Avenue, NW
Washington, DC 20004

RE: Reintroduction of Electroplating Sludge (F006) Rule Needed to Promote Materials Management and Beneficial Use

Dear Mr. Stanislaus:

IPC – Association Connecting Electronics Industries supports the Office of Solid Waste and Emergency Response’s (OSWER) stated intention to promote materials management and beneficial use. Wastewater treatment sludges from electroplating operations (F006), predominantly from the metal finishing and printed circuit board (PCB) industries represent one of the largest sources in the United States of untapped metal-bearing secondary materials amenable to materials management and beneficial use. Under RCRA hazardous waste regulations, F006 is costly to recycle and therefore is often landfilled. In 2006, the EPA unexpectedly withdrew a rule that would have promoted the reclamation of metal-bearing sludge through an exemption of F006 from RCRA hazardous waste regulations. The EPA’s basis for the withdrawal was the planned Definition of Solid Waste (DSW) rule, which would address the recycling and reclamation of secondary materials, including F006. However, recent efforts to address environmental justice issues in relation to the DSW rule are expected to indefinitely delay the rule’s implementation. IPC requests EPA reintroduce the rule that would exempt F006 from RCRA hazardous waste regulations when it is recycled or reclaimed.

IPC, a global trade association, represents all facets of the electronic interconnection industry, including design, PCB manufacturing and electronics assembly. PCBs and electronic assemblies are used in a variety of electronic devices that include computers, cell phones, pacemakers, and sophisticated missile defense systems. IPC has over 2,700 member companies and is a leading source for industry standards, training, market research and public policy advocacy. IPC supports programs to meet the needs of an estimated \$1.7 trillion global electronics industry. Many IPC members are significant producers of F006 sludge and would directly benefit from EPA reintroducing the F006 rule.

EPA's current regulatory scheme inhibits materials management and beneficial use of secondary materials. Many of these materials contain valuable metals that are rarely recycled due to costly regulatory barriers. F006 is often landfilled due to RCRA hazardous waste regulations which make recycling more expensive than disposal. F006 sludge contains a high concentration of valuable metals. For instance, copper ore normally contains less than 1% copper, where copper precipitate sludges from the PCB industry average 10% to 15% copper. Extraction and beneficiation of copper ore can have disastrous environmental impacts including acid mine drainage, erosion and sedimentation, chemical releases, fugitive dust emissions, smelter emissions, habitat modification, direct wildlife mortality, surface and groundwater impacts, disturbance of archaeological sites, and subsidence and decreased aesthetic appeal. Increased recycling of F006 would result in a decrease in the amount of virgin ore extracted, providing an enormous environmental benefit. OSWER can increase the reclamation of valuable metals by exempting F006 from RCRA hazardous waste regulations.

Most F006 sludge produced today is no longer hazardous and therefore exempting F006 from RCRA hazardous waste regulations should not raise environmental concerns. The original hazardous waste listing for F006 was made in 1980. The listing determination was based on the fact that wastewater treatment sludges from electroplating operations were known to contain a variety of metals, namely chromium, cadmium, nickel and complex cyanides. Under the Land Disposal Restrictions of 1986, additional treatment was required to immobilize metal constituents prior to landfilling. Because landfilling and associated treatment are generally less expensive than metals recovery, much F006 is landfilled. Many of the original conditions upon which this listing was based no longer exist in the industry. For example, although chromic-sulfuric acid etchant was widely used in the PCB industry in the mid-1970s, its use waned in the late 1970s and early 80s. It now has been completely replaced with non-chrome etchants such as ammonia based etchants. The use of cyanide plating in the industry has also been sharply reduced. It is no longer accurate to say that all F006 waste contains hazardous levels of cyanide, cadmium, and chromium. Testing conducted to date in two EPA projects - Hadco Corporation's Project XL Initiative and the Metal Finishing Common Sense Initiative F006 Benchmarking Study - have demonstrated that the key factors that originally triggered the sludge's listing are no longer applicable for the majority of wastewater treatment sludges from PCB facilities. Exempting F006 from RCRA hazardous waste regulations would remove costly regulatory barriers for recycling F006. This exemption will incentivize recycling of F006 due to reduced costs and will promote OSWER's goal of materials management and beneficial use.

The current regulatory structure has resulted in a business environment where it is cheaper to landfill wastes than it is to recycle them. Businesses, which must balance civic responsibility against responsibility to shareholders, often are driven to choose a landfill over recycling. Other businesses, choosing to place a premium value on environmental responsibility do so at a competitive disadvantage. A shift in the regulatory scheme to encourage materials management and beneficial use by directing valuable resources towards recovery, reclamation and recycling instead of treatment and disposal as hazardous wastes is a step towards accomplishing OSWER's goal. It is our belief that F006, once free from the associated costs of hazardous waste designation, will be more commonly recycled, thus reducing both landfill usage and consumption of virgin ore.

IPC supports OSWER's intentions to promote materials management and beneficial use. F006 sludge contains valuable metals that can be reused if the sludge is recycled and is no longer hazardous in nature. Exempting F006 sludge from RCRA hazardous waste regulations would increase the quantity of metal precipitates that are recycled through metals reclamation, thus conserving valuable metal resources and better protecting the nation's environment. IPC requests OSWER to reintroduce the rule that would exempt F006 from RCRA hazardous waste regulations when it is recycled or reclaimed.

Sincerely,

Stephanie Castorina
Manager, Environmental Programs