

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

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. David Isaacs
Director, Environmental Affairs
Electronic Industries Association
2500 Wilson Boulevard
Arlington, VA 22201-3834

Dear Mr. Isaacs:

Thank you for your letter dated July 7, 1997 regarding your concerns with language in the preamble to the May 12, 1997 final rulemaking concerning the regulatory status of whole used circuit boards. In this final rule, the Environmental Protection Agency (EPA) excluded from the definition of solid waste shredded circuit boards conditioned on containerized storage prior to recovery. This exclusion states that the shredded circuit boards covered by this exclusion must be free of mercury switches, mercury relays, nickel-cadmium batteries or lithium batteries. In a parenthetical statement, the Agency asserted that whole used circuit boards which contain mercury switches, mercury relays, nickel-cadmium batteries, or lithium batteries also do not meet the definition of scrap metal because mercury (being a liquid metal) and batteries are not within the scope of the definition of scrap metal. The preamble cited 50 F.R. 614, 624 (1985).

It is my understanding that you met with my staff on August 7, 1997 to discuss your concerns. In this meeting, you raised the issue that industry's interpretation of an August 26, 1992 memorandum from Sylvia K. Lowrance to Waste Management Division Directors was that all whole used circuit boards being reclaimed are subject to regulation as scrap metal for purposes of part 261.6(a)(3)(iv) and are therefore exempt from RCRA Subtitle C regulation when recycled. As such, the industry has developed a sophisticated asset/materials recovery system to collect and transport all whole used circuit boards to processing facilities whose activities may include safe removal and handling of mercury switches, relays and hazardous waste batteries, prior to final reclamation. YOU described in the meeting that the mercury switches and relays on circuit boards from some typical applications contain between 0.02 - 0.08 grams of mercury and are encased in metal which is then coated in epoxy prior to attachment to the boards. You also indicated your willingness to provide more comprehensive information on mercury concentrations from broader applications. Additionally, you stated that the boards are sent to a processing facility for evaluation (continued use, reuse or reclamation) where the switches and batteries are removed by persons with the appropriate knowledge and tools for removing these materials. Once these materials are

RO 14155

removed from the boards, they become a newly generated waste subject to a hazardous waste determination. If they fail a hazardous waste characteristic, they are handled as hazardous waste, otherwise they are managed as a solid waste.

Finally, you indicated that the interpretation that whole used circuit boards containing mercury switches, mercury relays, nickel-cadmium batteries, or lithium batteries are not scrap metal will act as a disincentive to recycling by requiring boards containing these materials to be shipped from generators to processing facilities as a hazardous waste unless the mercury switches, mercury relays, and batteries are removed prior to shipment (a practice which you believe is not practical or necessarily the most environmentally sound).

It is not the Agency's current intent to regulate under RCRA circuit boards containing minimal quantities of mercury and batteries that are protectively packaged to minimize dispersion of metal constituents, as described in our meeting. In light of the information you provided, our decision is that the preamble statement in the May 12, 1997 final rule is overly broad in that it suggested that the scrap metal exemption would not apply to whole used circuit boards containing the kind of minor battery or mercury switch components you described and that are being sent for continued use, reuse, or recovery. When we obtain additional information regarding this waste stream we will further evaluate how the scrap metal exclusion applies to your situation.

Again., thank you for the information you provided and your interest in the safe management of hazardous waste.

Sincerely,

Elizabeth Cotsworth, Acting Director
Office of Solid Waste