


Memorandum

Florida Department of Environmental Protection

TO: Waste Program Administrators
Hazardous Waste Program Managers

FROM: Mary Jean Yon, Director 
Division of Waste Management

DATE: June 16, 2008

SUBJECT: Regulatory Guidelines for the Management of Unwanted Electronic
Products

This memorandum clarifies the regulations that apply to the management of unwanted electronic products such as computers, computer monitors, televisions and cellular phones. The basis for this regulatory interpretation is to update a strategy paper issued by the Department in October 1999 and a regulation, known as the CRT (Cathode Ray Tube) Rule, issued by the United States Environmental Protection Agency on July 28, 2006 (40 CFR 260, 261, 271) in 71 FR 145, 42928-42949 and adopted by the Department on April 25, 2008.

Electronic products discarded by household users are exempt from hazardous waste regulation 40 CFR 261.4(b)(1). This memorandum applies to unwanted electronic products generated from business, commercial, institutional and other non-household users. The Department recommends recycling of all electronic products from both household and non-household users.

The CRT Rule divides electronic products into two groups: products that contain a CRT, such as televisions and computer monitors and products that do not contain a CRT, such as desktop and portable computers, flat panel display televisions and computer monitors, cellular phones, etc.

Electronic Products that Contain a CRT

Cathode Ray Tubes (CRTs) found in many televisions and computer monitors can be classified as a hazardous waste due to the amount of lead contained in the glass of the CRT which leaches out when subjected to the Toxicity Characteristic Leaching Procedure (TCLP). The CRT Rule is intended to encourage recycling and reuse of used CRTs and CRT glass. The rule streamlines management requirements for recycling of used CRTs and glass removed from CRTs by excluding these materials from RCRA (Resource Conservation and Recovery Act) hazardous waste regulation if certain conditions are met.

MEMORANDUM

Page Two

June 16, 2008

Any user, including a business or other regulated entity, sending a CRT or television/monitor containing a CRT to a collector or reseller for potential reuse is not the generator. Such regulated entities that no longer want the products do not have the technical knowledge to decide whether the CRT or product can be reused as a computer monitor or television. The entity, usually an electronics recycler, that first determines whether the CRT or product can be reused, would be the generator. If that entity decides to discard the CRT or product, that entity would become the generator of a hazardous waste. If that entity decides to reuse, repair, resell or recycle the CRT or product, the CRT or product is not a waste and therefore the given entity is not generator of hazardous waste.

The used CRTs and CRT glass must be handled as commodities rather than as wastes. Used, unbroken CRTs are not regulated as hazardous waste unless they are discarded or stored for more than a year which is considered to be speculative accumulation. Used, broken CRTs are not regulated as hazardous waste as long as all of the following conditions are met:

- CRT containers are clearly labeled regarding contents, for example, "Used cathode ray tube(s)-contains leaded glass " or "Leaded glass from televisions or computers." It must also be labeled: "Do not mix with other glass materials.";
- CRTs are safely transported in containers designed to minimize releases;
- CRTs are stored in a building or container designed to minimize releases; and
- CRTs are stored on site less than one year before recycling them.

To remain unregulated, CRTs undergoing glass processing must follow the same requirements, and, in addition, they must be processed inside a building at temperatures not high enough to volatilize lead from the glass. "Processing" means conducting all of the following activities:

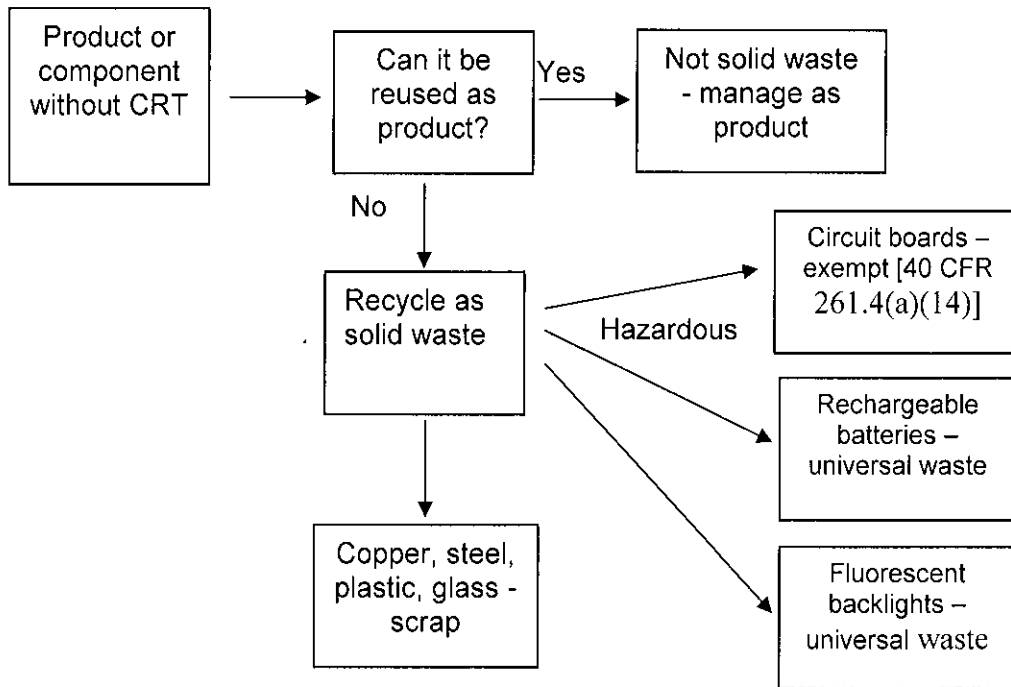
- (1) Receiving broken or intact CRTs;
- (2) Intentionally breaking intact CRTs or further breaking or separating broken CRTs; and
- (3) Sorting or otherwise managing glass removed from CRT monitors.

CRT glass that has been processed and sent to a CRT glass manufacturer or a lead smelter also is unregulated unless it is stored for more than one year or used in a manner constituting disposal. CRT glass going to any other kind of recycler may be eligible for exemption under existing regulations.

Exporters shipping broken or unbroken CRTs to another country for reuse or recycling must notify EPA [40 CFR 261.39(5)(v), 261.40-41] and, for broken CRTs or CRT glass, receive written consent [40 CFR 261.39(5)(v)] from the receiving country through EPA before shipments can be made."

Electronic Products that do not contain a CRT

Components, like circuit boards, fluorescent lamps for flat panel display backlighting and rechargeable batteries found in electronic products that do not contain a cathode ray tube can be classified as hazardous wastes if they fail the Toxicity Characteristic Leaching Procedure (TCLP). Circuit boards contain lead in the solder. Fluorescent lamps contain mercury. Batteries contain lead and sometimes cadmium. The preamble issued with the CRT Rule encourages recycling and reuse of these other electronic products by using the same line of reasoning that is used for products that do contain CRTs. See the decision tree below.



If you have any questions, please call or email Raoul Clarke at 850/245-8750 raoul.clarke@dep.state.fl.us or Jack Price at 850/245-8751 john.l.price@dep.state.fl.us.

MJY/rc

cc: District Directors