



United States
Environmental Protection
Agency

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Easier Recycling of Cathode Ray Tubes

By streamlining the management of cathode ray tubes (CRTs), the Environmental Protection Agency is making it easier to collect and recycle CRTs. Safely recycling CRTs saves energy and conserves resources, allows the recovered lead to be reused in other ways, and reduces the amount of lead in landfills.

Background

CRTs are the video display components of televisions and computer monitors. The glass in CRTs typically contains enough lead to require managing it as hazardous waste under certain circumstances. Under the previous regulations, businesses and other organizations that recycle or dispose of CRTs were sometimes unclear about the proper way to recycle or dispose of this equipment. That uncertainty sometimes prevented CRTs from being recycled and reused. EPA is changing CRT waste management requirements to promote additional safe recycling and reuse of CRTs. About 57 million computers and televisions are sold in the United States annually.

Action

EPA is providing conditional exclusions from the federal hazardous waste management standards for CRTs and CRT glass destined for recycling. These safe, yet simplified standards aim to increase the collection and recycling of CRTs, and to reduce the amount of lead in landfills by allowing the lead to be reused to make new CRT glass or sent to lead smelters.

Under these regulations, used, unbroken CRTs are not regulated as hazardous waste unless they are stored for more than a year. EPA is setting simpler, more manageable standards for unbroken CRTs because the risk of lead releases from them is very low. Since the risk is so low, the storage limitation on unbroken CRTs applies only to collectors or recyclers.

Used, broken CRTs are not regulated as hazardous waste as long as the following conditions are met:

- CRT containers are clearly labeled regarding contents;
- 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, except they must be processed inside a building, at temperatures not high enough to volatilize lead from the glass. 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 (see above) or used in a manner constituting disposal (applied to the land). 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 recycling must notify EPA and receive written consent from the receiving country through EPA before shipments can be made. This requirement is similar to those applicable to exporters of hazardous waste, which are found at 40 CFR Part 262. Exporters shipping used, unbroken CRTs for reuse as computers to another country must submit a one-time notification to EPA.

For More Information

[More information about the Hazardous Waste CRT Rule:](http://www.epa.gov/epaoswer/hazwaste/recycle/electron/crt.htm)

<http://www.epa.gov/epaoswer/hazwaste/recycle/electron/crt.htm>.

[To find out more detailed information or to ask a question](http://www.epa.gov/osw), please go to www.epa.gov/osw, and click on *Find an Answer or Ask a Question*.