LEGITIMATE RECYCLING OF USED CATHODE RAY TUBES

Waste Management Program Fact Sheet
Division of Environmental Quality Director: Ed Galbraith

Cathode Ray Tubes (CRTs) are the video display components of televisions and computer monitors. The glass in CRTs typically contains enough lead to require it to be managed as a hazardous waste. The Missouri Hazardous Waste Management Law includes exemptions for the legitimate recycling and reuse of used CRTs as defined in Chapter 40 of the Code of Federal Regulations (CFR), part 261.

**Used Intact CRTs**

- Are not considered a hazardous waste until they are disposed of or speculatively accumulated
- May be sent for processing to recover plastics, circuit boards, wiring, etc., prior to glass disposal
- Must be managed as a hazardous waste if going directly to a disposal facility

**Used Broken CRTs**

- Must be destined for recycling to remain exempt from hazardous waste regulations
- Glass must be recycled to remain exempt from hazardous waste regulations
- If the glass is destined for treatment, disposal or storage in excess of one year, the used, broken CRTs must be managed as a hazardous waste
- Must be clearly labeled according to 40 CFR 261.39(a)(2)
- Must be stored and transported in a manner to minimize releases
- Must be processed inside a building

**Legitimate Recycling**

To qualify for recycling exemptions:

- Materials must not be speculatively accumulated
- Materials must have a known market
- Materials must be treated as valuable
- Materials must not be used in a manner constituting disposal
- Materials must not be exported without notifying the U.S. Environmental Protection Agency (EPA) and obtaining consent from the receiving country through EPA

Speculative accumulation is prohibited in each of the categories above. This means the person accumulating materials before recycling must be able to show that the material is potentially recyclable and has a feasible means of being recycled. Also, during the calendar year, beginning on Jan. 1, the amount of material that is recycled or sent to a different site for recycling must equal at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. Examples of legitimate recycling of CRT glass include use as a fluxing agent at a permitted lead smelter, use as an ingredient at a permitted glass-to-glass facility, use as an ingredient at a permitted tile manufacturer.

*Use as alternative daily cover and long-term storage are not recycling activities.*
To learn more about electronics recycling in Missouri visit *e-cycle Missouri.*

**Televisions as Hazardous Waste**
Businesses choosing not to reuse or recycle televisions must manage them as hazardous waste. Businesses must abide by applicable hazardous waste laws and regulations. For more information about managing hazardous waste, visit EPA's webpage, *Typical Wastes Generated by Industry Sectors.*

**Additional Information:**
- E-cycle Missouri [https://dnr.mo.gov/ecyclemo/](https://dnr.mo.gov/ecyclemo/)
- *Typical Wastes Generated by Industry Sectors* [https://www.epa.gov/hwgenerators/typical-wastes-generated-industry-sectors](https://www.epa.gov/hwgenerators/typical-wastes-generated-industry-sectors)

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**Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.**

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