

Updated Guidance for the Management of Used Cathode Ray Tubes in Wisconsin November 11, 2008

The Wisconsin Department of Natural Resources has updated guidance that conditionally excludes cathode ray tubes (CRTs) that are destined for recycling from the state's hazardous waste management rules. This guidance continues to offer reduced management requirements that encourage recycling and reuse of used CRTs and CRT glass, while still ensuring that these materials are managed in ways that protect human health and the environment. This guidance updates the original version of this guidance by referring to the reduced management requirements in the final EPA CRT rule.

The Department will continue exercising discretion in enforcing the Wisconsin hazardous waste rules for used CRTs and CRT glass that are destined for recycling, if they are managed according to the final EPA CRT rule. This guidance will remain in effect until the Wisconsin hazardous waste management rules are revised to adopt the final EPA CRT rule.

Background: CRTs are glass vacuum tubes that function as the video display component of some electronic devices. They are commonly found in older style, non-flat panel televisions and computer monitors. CRT testing indicates most color CRTs have the hazardous toxicity characteristic for lead. This is due to the high levels of lead in certain CRT glass and glass sealing material. CRT recycling typically begins with disassembling CRT-containing devices to get a bare CRT and then separating the leaded from the non-leaded CRT glass. CRT glass can be recycled by being used as an ingredient to make new CRT glass, or as a source of lead and fluxing agent in lead smelters to reclaim lead for further use.

DATE: November 11, 2008

FILE REF: WA-1048 08

TO: Kate Cooper – WA/5

FROM: Joan Burns – WA/5 *JB*

SUBJECT: Management of Used Cathode Ray Tubes in Wisconsin – **UPDATED**

Background:

In Wisconsin, hazardous waste management is regulated under ch. 291, Wis. Stats., and chs. NR 660 to 670, Wis. Adm. Code. Those requirements were developed to ensure that hazardous waste is managed in ways that protect human health and the environment.

Cathode ray tubes (CRTs) are glass vacuum tubes that function as the video display component of some electronic devices. They are commonly found in older style, non-flat panel televisions and computer monitors. They may also be found in some of the following types of electronic devices: medical, automotive, oscilloscope, appliance, and military and control tower.

Toxicity Characteristic Leaching Procedure testing of CRTs indicates most color CRTs have the hazardous waste toxicity characteristic for lead. This is due to the high levels of lead in certain CRT glass and the glass frit used to seal certain glass pieces during CRT manufacturing.

In a final rule, dated July 28, 2006 and effective January 29, 2007, EPA streamlined its hazardous waste management requirements for used CRTs and CRT glass destined for recycling. EPA did this to encourage recycling and reuse of CRTs and CRT glass.

CRT recycling typically involves disassembling CRT-containing devices to get a bare CRT, releasing the vacuum in the CRT, and separating the leaded from the non-leaded CRT glass. Examples of CRT glass recycling include sending the glass to: CRT glass processors to prepare the glass for further recycling; CRT glass manufacturers, for use as an ingredient to make new CRT glass; and lead smelters as a source of lead and silica (fluxing agent) to reclaim lead for further use.

The Department's Waste and Materials Management Program is preparing a proposal to adopt EPA's July 28, 2006 CRT rule into the Wisconsin hazardous waste management rules. However, it could be a year or more before such rule changes would be effective in Wisconsin.

Under a memorandum dated July 10, 2003, the Department has been exercising discretion in enforcing hazardous waste requirements for CRTs and CRT glass that are destined for recycling and are managed according to specific standards. This memorandum modifies the July 10, 2003 memorandum to make it consistent with EPA's final CRT rule.

Beginning on this memorandum's approved date, the Department will continue exercising discretion in enforcing the Wisconsin hazardous waste management requirements for used CRTs and CRT glass that are destined for recycling, if they are managed according to the 40 CFR Parts 260 and 261 requirements in EPA's July 28, 2006 final CRT rule. For a summary of those requirements, see the enclosed EPA Region 5 Notice on Cathode Ray Tube (CRT) Rule Requirements.

Approved:

Dated:

Kate Cooper

Kate Cooper, Acting Director
Bureau of Waste and Materials Management

4/14/08

Encl.: EPA Region 5 Notice on Cathode Ray Tube (CRT) Rule Requirements

cc: Al Shea – AD/8
Peter Flaherty – LS/8
Steve Sisbach – LE/8
Waste and Materials Management Team (DNR DL WA LDR State)
Chris Newman – US EPA, Region 5

Disclaimer:

This guidance is in effect from the date this memorandum is approved until the Wisconsin hazardous waste management rules are revised to adopt EPA's final CRT rule. The Department may modify or withdraw this memorandum, in whole or in part, at any time.

This document is intended solely as guidance, and does not contain any mandatory requirements except where reference is made to requirements found in statute or administrative rule. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin, or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

Notice on Cathode Ray Tube (CRT) Rule Requirements



U.S. ENVIRONMENTAL PROTECTION AGENCY – REGION V ILLINOIS—INDIANA—MICHIGAN—MINNESOTA—OHIO—WISCONSIN

Do you handle intact or broken CRTs? EPA is providing conditional exclusions from the federal hazardous waste management standards for CRTs and CRT glass destined for recycling. The purpose of the CRT Rule is to help increase the collection, reuse, and recycling of CRTs, by clarifying regulations that may have discouraged those managing used CRTs and CRT glass from sending these materials for recycling.

USED BROKEN OR USED INTACT CRTs EXPORTED FOR RECYCLING

If you are exporting used broken or used intact CRTs FOR RECYCLING (disassembly), you must:

- Notify EPA and receive written consent from the receiving country, through EPA, before shipments can be made. This federal requirement is located at 40 CFR Part 261.39, and is similar to those applicable to exporters of hazardous waste, which are found at 40 CFR Part 262.60. **Notifications of intent to export used broken or used intact CRTs for recycling must go to:**
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460-0001
- **Written inquiries about the intent to export CRTs for recycling should also go to the same address.**
- This applies whether or not the state you operate in has adopted the CRT rule handling requirements.
- **All questions about the CRT Rule should go to:**
Marilyn Goode
Office of Solid Waste/OSWER
703-308-8800
goode.marilyn@epa.gov

USED INTACT CRTs EXPORTED FOR REUSE ONLY

If you are exporting used intact CRTs FOR REUSE ONLY, you must:

- Send a one-time notification to the EPA Regional Administrator stating that “you plan to export used, intact CRTs for reuse only.”
- The notification must also contain your contact information.
- This applies whether or not the state you operate in has adopted the CRT rule handling requirements.
- **Send notifications of intent to export CRTs for reuse only to:**
Regional Administrator
US EPA Region 5
Attn: William Damico
Land and Chemicals Division
77 West Jackson Boulevard
Chicago, IL 60604-3511

For information on EPA’s electronics recycling initiatives contact:
Chris Newman, US EPA Region 5
312-353-8402
newman.christopherm@epa.gov

HANDLING CRTs

YOUR STATE ENVIRONMENTAL PROTECTION AGENCY MAY NOT HAVE ADOPTED THIS PORTION OF THE CRT RULE. SEE REVERSE FOR CONTACT INFORMATION TO LEARN ABOUT STATE RULES.

Used intact CRTs are not regulated as hazardous waste unless they are stored for more than one year. See 40 CFR Part 261, Subpart A, Section 4 (a)(22).

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

- CRT containers are clearly labeled regarding contents;
- CRTs are safely transported in containers designed to minimize releases of CRT glass;
- CRTs are stored in a building or container designed to minimize releases;
- CRTs are stored on site less than one year before recycling them;
- CRTs undergoing glass processing must follow the above 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 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.
- See 40 CFR 261.39 for more details.

State Compliance Assistance Contacts

ILLINOIS

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INDIANA

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OHIO

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WISCONSIN

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