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Questions and Answers Regarding Massachusetts DEP's Cathode Tube Regulations

The following is regulatory guidance for the handling of discarded CRT in accordance with Department's regulations for this waste stream, which appear at 310 CMR 16.02, 16.05, 19.043(5)(k), 30.010 and 30.104.

What is a CRT?

A CRT is the picture tube made of glass, lead and other materials found inside televisions, computer monitors and some video game units.

What should a resident do with a used or obsolete TV or computer monitor?

First, consider giving your TV or computer monitor to some person or organization, either a local school system or non-profit organization that can use it. If the unit is very old, broken, or simply obsolete it needs to be properly recycled or disposed of.


Second, residents should call their municipal Department of Public Works or Board of Health to determine how TV sets and computer monitors are being handled in their community. In many cases, communities with curbside trash and recycling collection will schedule specific collection dates during the year for TVs and computer monitors just as they do for refrigerators, stoves, and other household appliances. Communities with drop-off collection of trash and recyclables will often designate a collection site for TVs and monitors at the drop-off facility. The DEP provides grant funding to many municipalities for the proper handling of CRTs. However, municipal programs set their own collection schedules, hours of operation, and collection procedures. Residents are advised to call their municipal program first to obtain updated information.

Residents who live in a city or town without municipal trash or recycling collection need to make their own arrangements for the proper recycling or disposal of TVs and computer monitors. The DEP provides information to assist residents in locating a recycling company or non-profit organization.

Consult the DEP's **Recycling Services Directory and Markets Guide for Massachusetts** for a list of companies that handle TVs, computer monitors and other kinds of used electronic equipment. (www.state.ma.us/dep/recycle/rsd/rsd.htm) Locate the listing for "Computers and Electronic Equipment".

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

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When a company upgrades its computer system, are the old CRTs regulated by DEP?

As long as the company sends the CRTs to someone who will determine whether to reuse, resell or repair them for return to service as operable CRTs, or pass them on to someone else who will make this determination, the old CRTs are a "commodity" and are not regulated by DEP.

When are CRTs regulated by DEP as a solid or hazardous waste?

A CRT is regulated as a *hazardous waste* once it has been crushed or when it is disposed intact. Note: hazardous waste rules do not apply to households.

Additional rules apply to companies that accumulate "non-commodity CRTs," which are CRTs that have been determined will not be returned to service as operable CRTs. Companies that accumulate non-commodity CRTs are regulated under the solid waste regulations as "CRT Operations," the requirements for which are described below.

DEP's previous CRT regulations (which took effect on August 21, 1998) indicated that because monochrome/black and white CRTs contain less lead than color CRTs, they were exempt from regulation as a hazardous waste. How are monochrome CRTs regulated under DEP's new CRT regulations?

DEP's position that monochrome CRTs are non-hazardous has not changed. Monochrome CRTs are, however, subject to the solid waste disposal ban that took effect April 1, 2000.

What's the difference between a "commodity CRT" and a "non-commodity CRT"?

A commodity CRT is a CRT that is in use or a CRT for which a determination regarding its future use has not yet been made by another party, such as a CRT repair expert. A commodity CRT may include working CRTs as well as non-working CRTs which are repairable by a CRT professional. Non-commodity CRTs are CRTs that have been determined will definitely not be returned to service.

Some of the CRTs my company wants to get rid of are not working and may not be returned to service. Is my company a "CRT Operation" because it may be accumulating "non-commodity CRTs"?

No, your company would not be subject to the rules for CRT Operations unless it makes a decision that a CRT will definitely not be returned to service.

How can a company or municipal collection program avoid becoming a CRT Operation inadvertently by accumulating a non-commodity CRT(s)?

DEP does not expect most CRT users to be experts in determining whether an inoperable CRT can be repaired and returned to service. This determination should be deferred to a CRT repair expert. As long as this determination is deferred to a CRT operation or CRT repair expert, a company or municipal collection program is not subject to regulation as a CRT Operation.

What if a company, municipal collection program or charity elects to make the determination that its CRTs are "non-commodity CRTs"?

In the event that a determination is made that a CRT will not be returned to service, it must be managed in accordance with the solid waste requirements for "CRT Operations" which appear at 310 CMR 16.05(3)(f): Conditionally Exempt Recycling Operations.

A CRT Operation that accumulates up to 40 tons of non-commodity CRTs must:

- Minimize breakage,
- Segregate its non-commodity CRTs from solid waste,
- Comply with RCRA export rules for shipments to foreign countries,
- Transfer its CRTs only to another CRT operation, recycler or hazardous waste facility (TSDF),
- Hold CRTs no longer than 1 year, and
- Label its CRTs.

A CRT Operation that holds 40 tons of non-commodity CRTs for more than 21 days must also:

- Notify DEP
- Maintain shipping records and accumulation duration records for 3 years

I own/operate a CRT Operation and may occasionally need to store my non-commodity CRTs for more than a year. Is this allowable, and if so, how would I demonstrate to DEP the need to exceed the 1-year limit?

A CRT Operation may store CRTs for more than one year when it is necessary to facilitate proper shipment (e.g. economically viable loads), recovery, treatment or disposal. Since you are required to demonstrate the need for more than one year of storage, DEP recommends that companies maintain records for non-commodity CRT accumulation in accordance with good business practices. These could include records ordinarily kept by businesses such as a log, written communications (including signed contracts) or copies of shipping documents such as bills of lading or receipts.

My company handles commodity CRTs exclusively (e.g. CRTs that are no longer needed by their original users) but is concerned that a DEP inspector might ask us to prove they are not "non-commodity CRTs." What should we do?

DEP recommends, but does not require, that companies maintain records for commodity CRTs in accordance with good business practices. These could include records ordinarily kept by businesses such as a log, inventory, written communications (including signed contracts) or copies of shipping documents such as bills of lading or receipts.

DEP's CRT regulations state that a CRT Operation that accumulates more than 40 tons of non-commodity CRTs (for more than 21 days) must notify DEP of its activity and comply with other additional requirements. What volume of CRTs does 40 tons translate to?

40 tons translates to approximately two full tractor trailer loads of CRTs. For the purposes of determining whether the 40 ton limit has been exceeded, the DEP does not make a distinction between CRT monitors that are intact and those CRTs whose glass is intact but have been stripped of the plastic housing.

If I choose not to send my company's CRTs to a facility for reuse, repair or to a CRT Operation for potential recycling, and instead decide to dispose of the CRTs, what shipping and other requirements apply?

Since there is a disposal ban on sending CRTs to a solid waste facility, you would have to send the CRTs to a hazardous waste treatment, storage or disposal facility (TSDF). CRT shipments to a TSDF must be made in accordance with applicable hazardous waste regulations found at 310 CMR 30.000. CRTs shipped into other States become subject to those other States' requirements.

What do I do with a CRT that has broken accidentally?

Incidental numbers of CRTs that are visibly broken and substantially intact (i.e. cracked and slightly damaged) may be managed as commodity CRTs. Greater than incidental numbers of such CRTs must be managed as either non-commodity CRTs or as a hazardous waste.

Incidental numbers of broken CRTs that are significantly damaged (i.e. broken into pieces) resulting from unintentional breakage during routine handling and transportation may be shipped off-site as non-commodity CRTs provided that the broken CRTs are handled in a manner that is protective of worker health and safety. Greater than incidental numbers of such CRTs must be managed as hazardous waste.