

RECYCLING ELECTRONICS

A GUIDE FOR BUSINESSES



BACKGROUND



Where do electronics go after they are collected? How can you trust that they end up where they should? Electronic waste, or e-waste, contains toxic chemicals, including lead and mercury, both harmful to the environment. E-waste accounts for 40 percent of the lead and 75 percent of the heavy metals found in landfills. However, electronics can still serve a purpose if recycled properly. Computers contain valuable metals, including gold, silver, palladium, platinum, aluminum and copper.

WHY RECYCLE?

There are many reasons to recycle old electronics, including legal reasons, financial reasons, practicalities and concern for the environment. As awareness grows regarding the hazardous nature of electronics, regulations for proper management have been put in place as a way of protecting public health and the environment. Businesses must comply with the Resource Conservation and Recovery Act (RCRA). Under RCRA, the toxicity characteristic leaching procedure (TCLP) for lead is set at a maximum of 5 mg/L. Anything higher is deemed as hazardous waste and must be recycled properly and documented. Keep in mind that the average color monitor contains about 18.5 mg/L of lead. Those who violate this act face heavy penalties.

ENVIRONMENTALLY FRIENDLY

In regards to e-waste, efforts made by government organizations, environmental protection groups and concerned citizens have helped reverse the growth of landfill expansion through awareness of e-waste disposal. Without these efforts, Iowa could lose countless more acres of land to soil erosion, see natural habitats destroyed and lose biodiversity. E-waste contains a “bouquet” of elements that can be recycled and reused to make new products while creating jobs and protecting our environment at the same time. More jobs are created per ton of recycling than if that waste was sent to a landfill.

HOW TO CHOOSE AN ELECTRONIC RECYCLER

Sometimes it’s not easy to tell who is a responsible recycler and who is not. Before using any recycler, make sure to conduct due diligence on the company. If possible, take a tour of the facility. Recyclers should provide a certificate of recycling and be able to tell you where each piece of de-manufactured equipment is sent. In addition to being familiar with the manner in which electronics will be recycled, it is important to research the recycling facility to determine if it has any compliance problems.

Proper recycling includes ensuring that the recycling facility processes electronic equipment in a timely manner. If electronic equipment is not recycled properly, and it is a hazardous waste under RCRA, both your company and the recycling facility will be liable for cleanup costs associated with improper disposal of hazardous materials.

Responsibility

It is imperative to be able to identify recyclers that collect, handle and transport electronic waste in a socially, environmentally and ethically responsible manner.

~ Scott Cassel, Product Stewardship Institute

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In Iowa, collectors of e-waste that contains a cathode ray tube (CRT) must register with the Iowa Department of Natural Resources (DNR). E-waste that typically contains CRTs are televisions and computer monitors. CRT recyclers in Iowa must obtain a DNR permit.

PROTECT YOUR DATA

If you are donating or recycling a laptop or desktop computer, personal data could still be on the hard drive. Most recyclers have hard drive wiping policies, but it is always in your best interest to protect personal information by erasing or



destroying the hard drive. There are many hard drive wiping software programs available. You can read more about the importance of hard drive erasure as well as do a comparison of some of the more popular software programs by going to Tech Soup's website at:

www.techsoup.org/learningcenter/software/page5726.cfm

NATIONAL MANUFACTURERS PROGRAMS

Most major computer companies run their own national mail-back programs. Usually for a fee, but sometimes free, these companies will send you a pre-paid mailing label, or let you print the label using their website. You then package your unwanted computer equipment and send it along or arrange a pickup. The

United States Environmental Protection Agency (EPA) runs a *Plug-in To eCycling* program. Participants in the program agree to maintain strict standards in recycling. To view a list of the EPA plug-in partners, visit:

www.epa.gov/wastes/partnerships/plugin/partners.htm

Some national manufacturers' programs are listed below. Search their websites for further information.

Acer	Fujitsu	LG Electronics
Apple	Gateway	Panasonic
Asus	HP	Samsung
AT&T Wireless	IBM	Sharp
Canon	Intel	Sony
Dell	Lenovo	
Epson	Lexmark	

Several stores also offer recycling services such as Best Buy, Costco, Office Depot, Radio Shack, Staples and more.

MORE INFORMATION

- Recycling electronics and how to obtain a permit or registration:
www.iowadnr.gov/Environment/LandStewardship/WasteManagement/Recycling/Ewaste.aspx
- List of CRT collectors and recyclers in Iowa:
www.iowadnr.gov/portals/idnr/uploads/waste/crtregsites.pdf?amp;tabid=831
- Video on electronic recycling and the planet patrol from KDSM.
kdsml7.com/sections/community/features/planet_patrol/videos/vid_3.shtml
- Exporting information and CRT rules from EPA:
epa.gov/osw/hazard/recycling/electron/index.htm

FACT

It takes two tons of raw materials to make one desktop computer.