



# ELECTRONICS RECYCLING PROCEDURES

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## University Electronics Recycling Procedures

Towson University has recently implemented a campus-wide computer recycling program for University owned computers and electronic equipment that is designed to keep potentially hazardous electronic components out of the environment. Electronic waste is de-manufactured and recycled in accordance with the Land Ban Act of May 1994, 40 CFR, Parts 260-279.

### *Why are Discarded Electronics Potentially Harmful?*

Electronic equipment contains significant amounts of hazardous waste, including cadmium, lead, mercury and polychlorinated biphenyls (PCB's) that can become hazardous to human health and the environment if they are not properly managed. These materials are also regulated as hazardous wastes by the US EPA and the Maryland Department of the Environment. About 70 percent of the heavy metals found in landfills come from discarded electronic equipment. The heavy metals and other hazardous substances found in electronics can contaminate groundwater and pose other environmental and public health risks.

**Cadmium** - The largest source of cadmium in municipal waste is rechargeable nickel-cadmium (NiCad) batteries, commonly found in laptop computers.

**Lead** - Monitors and television contain a picture tube known as a cathode ray tube (CRT). The CRTs contain leaded glass, and are the largest source of lead in municipal waste. Each monitor contains approximately 4-8 pounds of lead.

**Mercury** - Electronic waste is a leading source of mercury in municipal waste. Approximately 1/3 of mercury pollution in the U.S. is released by waste incinerators burning mercury tainted trash.

**Polychlorinated Biphenyls (PCB's)** – Transformers and capacitors in electronic devices may contain small quantities of PCB's. PCB's are a suspected human carcinogen and a known animal carcinogen. They are resistant to degradation and therefore persist for many years in the environment.



Additionally, discarded electronic equipment is a concern because electronics are made with valuable resources such as precious metals, engineered plastics, glass, and other materials, all of which require energy to manufacture. When equipment is thrown away, these resources cannot be recovered and additional pollution will be generated to manufacture new products out of virgin materials.

- Last year TU disposed of approximately 750 computers.
- According to the National Recycling Coalition, ONLY 10% of electronics are being recycled.
- The National Safety Council estimates that within 6 years, 500 million computers in the US will become obsolete.
- The majority of electronics also contain other recyclables such as steel, gold, silver, copper, nickel, aluminum and engineering grade plastics.

### *Which Electronics Can Be Recycled?*

At the present time, only the following **University owned items** will be recycled under this program:

- Audio/Visual Equipment
- Zip & CD ROM Drives
- Computer Equipment
- Connectors/Cords/Wire
- Communication Systems
- Circuit Boards
- Fax Machines
- Floppy Drives
- Hard Drives
- Laptops
- Mainframes
- Memory Chips
- Modems

- Monitors (Monochrome & Color)
- Motherboards
- Network/Video/SCSI/Sound Cards, etc.
- Power Supplies
- Printers
- Scrap Copper, Computer Plastics or Computer Metal
- Tape Drives
- Test Equipment



### *Disposal Procedures:*

- Departments wishing to dispose of old computers & peripherals should contact the Office of Technology Services (OTS) at x4-5151 or [helpcenter@towson.edu](mailto:helpcenter@towson.edu) to indicate that they have computers, etc. for disposal.
- OTS will assign their request a ticket in the tracking system and assign the task of "wiping" the computer to a Client Services Representative (typically a Student Assistant)
- The Client Services Representative will visit the client site and perform a DOD-approved "Wipe" of the hard disk (is essence, it reformats the hard drive 7 times - no data remains). In addition to data, all Operating Systems and Applications software are also removed from the computer (this keeps us in compliance with the MEEC Agreement entered into between Microsoft and the University System of Maryland)
- Once the computer has been wiped, the Client Services Representative will affix a sticker indicating that the computer has been wiped. It will be initialed by both the Client Services Representative and the Client who submitted the ticket.

- The client should contact Material Management (X4-2479 or [pbutler@towson.edu](mailto:pbutler@towson.edu)) to complete a [Materiel Management Service Request \(MMSR\)](#) Form to have the TU Moving Crew pick up the computer for disposal.
- All computers and peripherals slated for disposal will be stored on pallets in the Materiel Management area of General Service's pending shipment to an approved electronics recycling center.

## **QUESTIONS??**

Questions concerning the program should be directed to Material Management at x4-2479 or [pbutler@towson.edu](mailto:pbutler@towson.edu).

## **Links:**

 [Materiel Management Service Request \(MMSR\) Form](#)



 [Maryland Department of the Environment eCycling Website](#)

 [EPA Region 3 eCycling Website:](#)

 [EPA Region 5 eCycling Website](#)