

Electronics Recycling Program Guidelines

Scope

The scope of the procedure pertains to University-owned electronics equipment under the TU Chemical Hygiene Program, specifically the Hazardous Waste Program. The procedure is limited to the disposal of such equipment with intent to reuse and refurbish for the original purpose as feasible, and to recover materials and reduce hazardous wastes in the environment.

Introduction

Towson University has implemented a campuswide computer recycling program for University-owned computers and electronic equipment that is designed to keep potentially hazardous electronic component 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.

Electronic equipment contains significant amounts of hazardous waste, including lead, mercury, and polychlorinated biphenyls (PCBs) 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 United States Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE). 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.

Lead - Monitors and television contain a picture tube known as a cathode ray tube (CRT). CRTs contain leaded glass, and they represent 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 (PCBs) – Transformers and capacitors in electronic devices may contain small quantities of PCBs. PCBs are a suspected human carcinogen and a known animal carcinogen. They are resistant to degradation and therefore persist for many years in the environment.

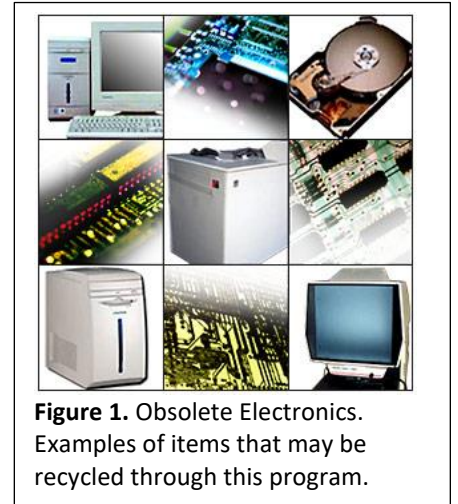
Additionally, discarded electronic equipment is a concern because electronics are made with valuable resources such as precious metals, engineered plastics, glass, and other materials, all of which require energy to manufacture. When equipment is thrown away, these resources cannot be recovered, and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

out of virgin materials. The majority of electronics also contain other recyclables such as steel, gold, silver, copper, nickel, aluminum and engineering grade plastics.

- In 2022, EPA estimated that consumers and businesses discarded electronics that totaled 6.9 million tons, 25% of which was recycled.

At the present time under this program, the University-owned items to be recycled will include, but is not limited to the following:

- Audio/Visual Equipment
- Zip, CD-ROM Obsolete Disk Drives
- Computer Equipment
- Connectors/Cords/Wire
- Communication Systems
- Circuit Boards
- Fax Machines
- Hard Drives
- Laptops
- Mainframes
- Memory Chips
- Modems
- Monitors
- Motherboards
- Network/Video/SCSI/Sound Cards, etc.
- Power Supplies
- Printers
- Scrap Copper, Computer Plastics or Computer Metal
- Test Equipment
- Other Electronic Equipment



Procedures

A. Disposal

1. Ink & Toner Cartridges

- Cartridges are recycled by placing them into RecycALL containers or octagonal green and white collection boxes. These may be found in residence halls, offices, and other places around campus.

2. Electronic Equipment

- Departments wishing to dispose of old computers & peripherals should contact the Office of Technology Services (OTS) at 410-704-5151 or 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 (in 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 complete a [Material Management Service Request \(MMSR\)](#) Form to have TU Moving Services pick up the computer for disposal. They may contact Material Management at 410-704-2478 or mmsr@towson.edu for further instructions.
- All computers and peripherals slated for disposal will be stored on pallets in the Material Management area of General Services, pending shipment to an approved electronics recycling center.

Resources

Questions concerning the program should be directed to Material Management at 410-704-2478 or mmsr@towson.edu. Additional information may be found from the hyperlinks below:

- [EduCycle Program on Campus](#)
- [Maryland Department of the Environment eCycling Website](#)
- [Electronics Donation and Recycling](#)
- [Certified Electronics Recyclers](#)
- [Sustainable Management of Electronics](#)