

S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

TECHNICAL ASSISTANCE

OFFICE OF SOLID WASTE REDUCTION AND RECYCLING

E-SCRAP

The sheer amount of electronic equipment that we buy, depend on, enjoy and then discard has resulted in a growing environmental challenge – electronic scrap or E-scrap.

E-scrap is one of the fastest rising waste streams in the nation. Each year hundreds of thousands of computers, monitors, televisions, printers, copiers, fax machines, cell phones and other electronics become obsolete to consumers. Rapid advances in technology, a demand for new features and even planned obsolescence accelerate the generation of old, unwanted electronics.

E-scrap, however, provides a more complex challenge beyond the numbers. E-scrap often contains lead, chromium and other materials that can be hazardous to human health and the environment if not properly managed.

The overall challenge is to find ways to reduce the amount of E-scrap being generated followed by ways to reuse, recycle or properly dispose of older equipment.

For more information about the proper management of E-scrap or recycling in general, please call DHEC's Office of Solid Waste Reduction and Recycling at **1-800-768-7348** or visit www.scdhec.gov/recycle.

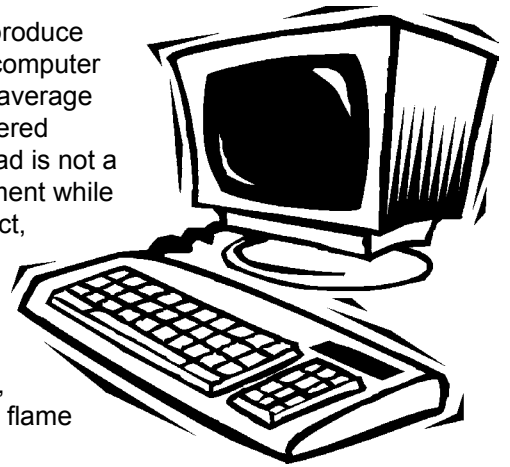
PRINTED ON RECYCLED PAPER
DHEC OR-0533CRT 3/10

CATHODE RAY TUBES AND ELECTRONICS MANAGEMENT

The S.C. Department of Health and Environmental Control (DHEC) promotes the safe recycling and disposal of cathode ray tubes (CRTs) and other electronic equipment. This publication is designed to assist households and businesses in determining proper management options.

WHY ARE CRTs AN ISSUE?

CRTs are the main components that produce the image you see on a television or computer monitor display unit. They contain an average of four pounds of lead and are considered hazardous when thrown away. The lead is not a risk to human health and the environment while the monitor and television remain intact, but the lead may be released when disposed of (broken and crushed) at a municipal solid waste landfill. In addition to the lead, electronics can contain chromium, cadmium, mercury, beryllium, nickel, zinc and brominated flame retardants.



THE PROPER MANAGEMENT OF CRTs

Below are some general guidelines on the proper management of CRTs and other electronics from households and businesses:

- **HOUSEHOLDS:** In South Carolina, residents should check with their local government to determine the proper management of computer monitors, televisions and other electronic equipment. (Visit www.scdhec.gov/environment/lwm/recycle/counties.htm for more information.) Residents can reduce the environmental impact of E-scrap by making changes in their buying habits, looking for ways to reuse (including donation) or recycling. For more information on how residents can properly manage their E-scrap, see the "FYI: Electronic Scrap" and "Do Your Part: Recycle Home Electronics" fact sheets. For more information about local programs, reuse and recycling opportunities as well as information on companies that recycle computers and other electronic equipment, please call **1-800-768-7348** or visit www.scdhec.gov/recycle.
- **BUSINESSES:** In South Carolina, businesses must follow state and local regulations regarding the proper management of computer monitors, televisions and other electronic equipment. Businesses have four options: (1) donate the equipment to an organization for reuse (e.g., non-profits, local schools and churches); (2) recycle it; (3) dispose of it as hazardous waste; or (4) prove the equipment is not hazardous through a Toxicity Characteristic Leaching Procedure (TCLP).

THE RECYCLING OPTION

If your business decides to recycle, you may consider asking the recycler the following questions:

- How does the recycler handle the demanufacture and final disposal of all components and hazardous materials?
- How does the recycler verify data security?
- Are the computers exported? If so, where and what happens to the equipment?
- How long has the recycler been in business? Can the recycler provide a list of references of companies that they provided service to or currently provide service?

For a list of companies that recycle computers and other E-scrap, visit the "Index of Waste Minimization Resources" at www.scdhec.gov/environment/admin/CWM/CWMrindex.htm or the "Recycling Directory" at <http://maps.scommerce.com/resource/recyclingdirectory.aspx>.

If a business chooses to manage its CRTs and other electronic equipment as a hazardous waste or have a TCLP test done, the business should call DHEC's Division of Hazardous Waste Compliance and Enforcement at **(803) 896-4136**.

STATE-TERM E-SCRAP CONTRACT

To assist in the proper management of E-scrap, a state-term contract for the recycling of unwanted electronic equipment has been established by the state. The contract with Creative Recycling Systems of North Carolina (Creative) allows schools and school districts, colleges and universities, local governments, state agencies and other governmental entities to properly and easily manage E-scrap. For more information, please call Creative at **1-800-388-3961** or visit http://cio.state.sc.us/itmo/contract/esp/recycling/index_recycling.htm.

U.S. EPA RULE ON CRTS

The U.S. Environmental Protection Agency (U.S. EPA) adopted a rule that streamlines the management of CRTs in July 2006. The new requirements encourage recycling and no longer classify CRTs as hazardous waste unless they are stored for longer than one year. This change is not effective in South Carolina until the state legislature passes legislation that adopts the new rule. For more information on the U.S. EPA rule, visit www.epa.gov/epaoswer/hazwaste/recycle/electron/crt.htm.

ADDITIONAL INFORMATION

For more information about the proper management of electronics including recycling, see the "Computer/Television Recycling Advisory" (Advisory) as well as the "FYI: Electronic Scrap" and "Do Your Part: Recycle Home Electronics" fact sheets. The Advisory and fact sheets are available at www.scdhec.gov/environment/lwm/recycle/resource_center.htm or by calling **1-800-768-7348**.

REUSE TIPS

A working computer is a terrible thing to waste. Donating computers to schools, non-profit organizations and low-income individuals is a winning situation for both businesses and the community.

Preventing waste is the most preferable waste management option. Given that, donating your old computer or other electronic equipment extends the life of those products and temporarily keeps them out of the waste stream.

Before you donate your computer or other electronic equipment, make sure the equipment is usable. Most non-profit organizations do not have staff or funding to repair equipment. Check to see what the organization's minimum requirements are for donated equipment.

Remember to erase any personal files from your computer.

Businesses need to be particularly careful about removing confidential information from computers they dispose of, donate or recycle. There are various federal regulations that apply to the cleansing of information from computers. Business are responsible for finding out which regulations apply to them.

For more information on recycling computers and other electronic equipment including federal regulations and answers to other frequently asked questions, visit www.epa.gov/epaoswer/hazwaste/recycle/ecycling.

