



Electronic Waste

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

E-waste 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-waste, however, provides a more complex challenge beyond the numbers. E-waste contains metals and other materials that can be hazardous not only to the environment but to human health if not properly managed.

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

E-waste must be managed responsibly.

Electronics are one of the largest known sources of heavy metals and organic pollutants in the waste stream. Some electronics – usually those with cathode ray tubes (CRTs), circuit boards, batteries and mercury switches – contain hazardous or toxic materials such as lead, mercury, cadmium, chromium and some types of flame retardants.

CRTs are a particular concern. CRTs are the glass “picture tubes” in computer monitors, television sets and other video display devices that amplify and focus high-energy electron beams to create the image seen on the screen. In order to protect consumers from radiation, the glass in CRTs contains lead. Lead, in fact, makes up about 20 percent of the weight of each CRT or anywhere from four to eight pounds per unit according to some studies. Although the lead probably is not an environmental issue while the monitor or television remains intact, the lead may be released under typical conditions at a landfill.

What can you do?

You can reduce the environmental impact of your e-waste by making changes in your buying habits, looking for ways to reuse including donating or recycling.

Preventing waste to begin with is the preferred waste management option. Consider, for example, upgrading or repairing instead of buying new equipment to extend the life of your current equipment and perhaps save money.

If you must buy new equipment, consider donating your still working, unwanted electronic equipment. This reuse extends the life of the products and allows non-profits, churches, schools and community organizations to have equipment they otherwise may not be able to afford. In South Carolina, for example, Habitat for Humanity Resale Stores, Goodwill and other similar organizations may accept working computers.

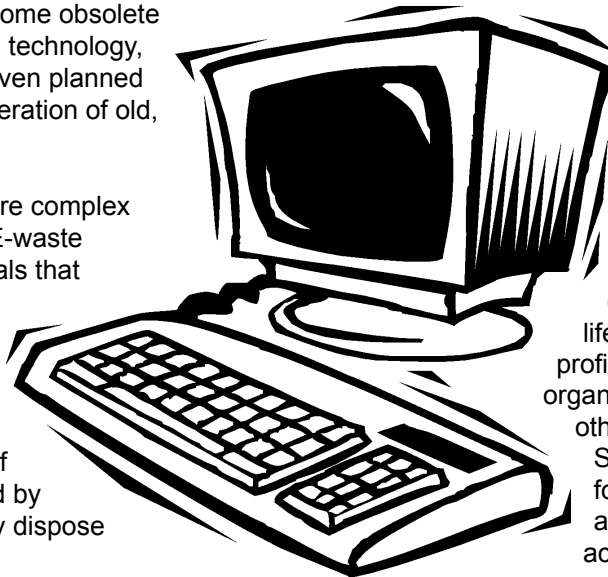
When buying new equipment, check with the retailer or manufacturer to see if they have a “take-back program” that allows consumers to return old equipment when buying new equipment. For a list of retailers and manufacturers that recycle electronics, see the “FYI: Recycling Home Electronics” fact sheet or visit www.scdhec.gov/recycle.

And, when buying, consider products with longer warranties as an indication of long-term quality.

Recycle e-waste.

E-waste can be recycled. Some components of e-waste such as precious metals have considerable value on the recycling market, but frequently are difficult and expensive to process (dismantle, clean and sort) because of their toxicity.

Currently, e-waste is one of the least recycled segments of the nation's waste stream, but that is changing. Nineteen



states have enacted legislation to establish statewide e-waste recycling programs. In 2008, 19 states – including South Carolina – introduced some form of e-waste legislation.

There are e-waste recycling opportunities in South Carolina.

Many counties currently have programs to collect computers and other electronics. Some other local programs hold single-day collection events throughout the year. Please visit www.scdhec.gov/recycle to see if your community collects e-waste.

South Carolina has a state contract for schools and school districts, colleges and universities and state agencies to

use to recycle computers and other electronic equipment. Other government entities also may use the contract.

As mentioned, legislation was introduced in 2008 in South Carolina that would set up a statewide program to recycle e-waste.

Do your part.

Each of us plays an important role in making recycling work, particularly recycling of electronics. Take the time to do your part. It's just right to recycle.

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

How much e-waste?

Consumer electronics comprised about 1.2 percent or 3 million tons of the municipal solid waste (MSW) generated nationwide in 2007 according to the U.S. Environmental Protection Agency (U.S. EPA). South Carolinians generated about 4.45 million tons of MSW in fiscal year (FY) 2008 (July 1, 2007 to June 30, 2008). Based on the U.S. EPA's rate, an estimated 53,400 tons of e-waste was generated in the state. More than 1,600 tons of e-waste was reported recycled according to the "S.C. Solid Waste Management Annual Report for FY08."



Office of Solid Waste
Reduction & Recycling
1-800-768-7348 ● www.scdhec.gov/recycle

DHEC's Office of Solid Waste Reduction and Recycling FYIs provide general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please call **1-800-768-7348** or visit our Web site at www.scdhec.gov/recycle. Please send written correspondence to: DHEC's Office of Solid Waste Reduction and Recycling, 2600 Bull Street, Columbia, SC 29201.