



# It's Not Easy Being Green

By Melissa Solomon

As federal agencies try to improve their technology waste practices, many find it's harder than it looks.

## The Army's Fort Lewis is, quite literally, cleaning up its act.

Two years ago, the base in Washington state set the lofty goal of generating zero net waste by 2025.

Fort Lewis is getting a big boost toward achieving that goal from the Federal Electronics Challenge, a program that encourages—and helps—federal agencies to manage technology in an environmentally responsible way. Since the late 1990s, when studies found that cathode ray tubes (CRTs) leach lead at nearly four times the regulatory limit, the issue of electronics waste management has moved into the spotlight. Federal sites such as Fort Lewis are serving as examples for the rest of the nation by reducing the amount of electronics waste, or e-waste, they produce.

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"The recycling revolution caught a lot of folks off guard," says Charles Johnson, the electronic stewardship program manager for the Office of the Federal Environmental Executive (OFEE), which issued the Federal Electronics Challenge.

"We have a fast-growing waste stream, but it's only recently that a lot of folks have come together to address this on a national level."

The Federal Electronics Challenge gives agencies national recognition, information

are lax. However, if serial numbers are found on equipment that's been disposed of improperly, it can come back to haunt its former owner.

Even donating discarded equipment poses a challenge. Technology becomes obsolete quickly but dropping PC prices make it difficult to give older equipment away.

Security offers some harsh lessons. Some agencies learned the hard way—after their sensitive data was found by recipients of

“It seems so innocuous,” Austin says of a PC. “How could it contain something that you wouldn't want in your water?”

and technical assistance to address e-waste issues. In exchange, agencies agree to meet certain levels of environmental standards—bronze, silver or gold—in the procurement, use and disposal of electronic devices.

John Howard, the federal environmental executive, initiated a pilot of the challenge in May 2003. The Department of Defense, Environmental Protection Agency, U.S. Postal Service, Department of Energy and Department of the Interior signed on as inaugural partners in this effort. The full launch is slated for May 2004.

"It's basically an effort to get the federal government to look at how we manage our electronics from cradle to grave," Johnson explains.

Addressing the problem of technology waste isn't as simple as tossing PCs into a recycling bin instead of a trash can. Few recycling facilities dispose of electronics properly. Some ship products to landfills in countries whose environmental standards

donated or recycled computers—that it isn't easy to scrub hard drives clean of data.

The cost of recycling equipment is also a concern as it can add up quickly. Software to delete all traces of data, employee time spent cleaning hard drives, resources devoted to developing environmentally sound disposal policies, recycling fees and shipping costs can run from \$10 to \$150 per machine.

### Recycling Roadblocks

But organizations have little choice, as a few states already ban CRTs from landfills. Because many electronics are classified as hazardous waste, their handling is governed by general environmental regulations, such as the Comprehensive Environmental Response, Compensation, and Liability Act (aka Superfund) and the Resource Conservation and Recovery Act, both of which dictate how to dispose of or recycle waste.

A bill to create a computer recycling grant and fee program and a national e-waste infrastructure was introduced in the U.S. House of Representatives, but it has been stalled since March 2003 in an Energy and Commerce Committee subcommittee.

In years past, it was large-scale, obvious hazards—barrels of leaking crude oil and burning rivers—that raised environmental eyebrows. No one thought about problems like computer monitors.

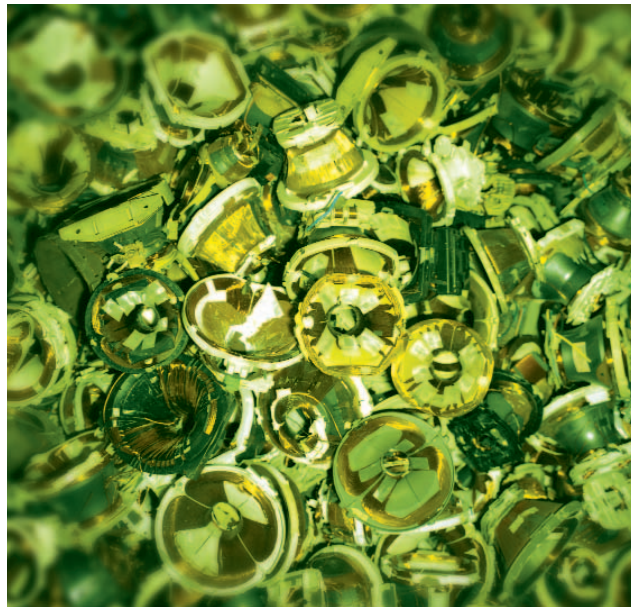
"It seems so innocuous," says Terry Austin, sustainability coordinator at Fort Lewis. "It's just this thing that sits on your

The federal government discards 10,000 PCs weekly, says an OFEE report.

PHOTOGRAPHY BY TONY LAW. PHOTO ILLUSTRATION BY BIG DESIGNS

### TECH RECYCLING TIPS

- ▶ Reuse equipment or parts from other offices or agencies
- ▶ Select vendors that offer recycling programs
- ▶ Require recycling facilities to document that equipment is disposed of according to strict environmental standards
- ▶ Buy earth-friendly products, such as LCD monitors and multifunction machines.



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the amount of equipment being used and retired continues to climb. According to David Daoud, an analyst at IDC in Framingham, Mass., 46 million computers were sold in 2002. The federal government buys \$38 billion worth of electronic equipment and services each year, according to the Office of the Federal Environmental Executive. Yet many studies estimate that only 20 percent of obsolete computers and TVs are recycled. "I don't

think that all these millions of units that we're talking about are being recycled," Daoud says.

Fort Lewis officials are evaluating more environmentally friendly IT procurement practices, such as buying instead of leasing equipment and buying cleaner products, including circuit boards with less lead and flat-panel liquid crystal displays (LCD) instead of CRTs. The base also plans to join with other installations in leveraging their buying power and to insist on vendor take-back programs and cleaner products, reports Ken Smith, Fort Lewis Public Works chief of environmental operations.

The National Park Service faces a quite

different challenge: It must find adequate recycling facilities for parks in remote areas.

"This is a huge issue for the Park Service," says Bretnie Grose, environmental programs assistant for the service's Pacific West Region. Park managers she speaks with complain that they have closets full of computer equipment, she says, and "they just don't know what to do with it."

As a new participant in the Federal Electronics Challenge, Grose gets one-on-one assistance with environmental waste, property and purchasing issues. She's learned how to locate recyclers and has a checklist of questions for recyclers about their disposal practices.

### Park Culture Goes Green

Some cultural changes at the Park Service are making its technology practices more earth-friendly. Seattle and Oakland divisions have started using notebooks as their sole computers instead of desktops or some combination of desktops and notebooks.

"The first step in recycling is to purchase less," says Steve Butterworth, energy manager for the Seattle region.

That's the attitude that everyone needs to take, before it's too late, says Fort Lewis' Smith. "If we keep ravaging Mother Earth," he warns, "eventually there will be nothing left." ■

By the end of this year, 325 million computers will pile up in U.S. landfills, says an OFEE report.

desk. How could it contain something that you wouldn't want in your water?"

Lead, cadmium, barium and mercury are only the most prominent items on a long list of hazardous materials found in electronic devices. When disposed of improperly, these chemicals can seep into the water supply, polluting drinking water, harming fish and wildlife, and boosting rates of miscarriages, birth defects and cancer clusters, according to the Silicon Valley Toxics Coalition.

As technology refresh cycles advance,

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### GSA TACKLES E-WASTE

Scores of computers, monitors, printers and fax machines pass through the personal property unit of the General Services Administration (GSA) each month.

To dispose of such huge volumes of equipment, GSA turns to vendors such as Fort Lee, N.J.-based AnythingIT, which offers technology take-back services for government. Agencies can't accept rebates, but they can trade in old equipment and get the value credited to their accounts for future purchases.

"Agencies have to fight for every dollar of their IT budget," says AnythingIT President David Bernstein. "This is newfound money for a lot of them."

AnythingIT will arrange to have hard drives cleaned using a Department of Defense-approved forensic application, which overwrites data on the hard drive a minimum of three times to ensure that it can't be retrieved, Bernstein says.

"We live in a different world today," he says. "September 11 was a wake-up call. Now data

security and liability protection are paramount."

AnythingIT also arranges to have equipment packed, shipped and inventoried in compliance with standards set by GSA and the Office of Management and Budget. The company records serial numbers, model numbers and asset-tag information, providing an audit trail that agencies can track via a password-protected Web site.

If agencies prefer, AnythingIT will help them donate equipment to a nonprofit agency or return it to a leasing company to avoid fees.

Electronics waste is a big issue for GSA. In October, it issued a bulletin alerting federal employees to the problem, according to Robert Holcombe, GSA director of personal property. "My gut tells me that many people who actually make the decisions don't know about ... the heavy metal problem," he says. "Hopefully, this information will get into the hands of the people on a loading dock before they throw [equipment] away." ■

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