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# Closing the Circle News

## Promoting Federal Electronics Stewardship

**W**elcome once again to *Closing the Circle News*. This edition is dedicated to electronics stewardship in the Federal government. Why now? Because there is so much great news to tell! We are now about one year into the Federal Electronics Challenge that was officially initiated at a November 15, 2004 Memorandum of Understanding signing. Since then, much has been done to promote and facilitate good environmental stewardship, as well as realize great programs at the agency and facility level.

This newsletter has much useful information, highlighting available tools, guidance, and resources, including direction to more information and the tools themselves. We've also included some exciting examples and case studies of what our Federal champions are accomplishing through their efforts.

As you read the newsletter, please take special note of how we are striving to connect efforts as we work towards more sustainable operations. You will see examples of linking EMS, green purchasing, community stewardship, recycling, and employee awareness all within the context of what we mean by electronics stewardship.

Hopefully these great stories and easy-to-get tools will encourage you to sign up your facilities in the Reuse and Recycling Challenge that kicked off on November 15th, 2005, to last



until Earth Day 2006. I would like to hand you one of the recognition awards next April!

A handwritten signature in blue ink that reads "Ed Piñero".

Ed Piñero  
Federal Environmental Executive



# FEC Expands to Cover 83 Percent of Federal Purchasing Power

With the signing of a November 15, 2004 memorandum of understanding (MOU) between the Executive Office of the President and 11 Departments and Agencies, the Federal Electronics Challenge (FEC) grew to cover 83 percent of the Federal government's purchasing power. In all, agencies signing the MOU spend approximately \$60 billion on IT-related purchases annually. Federal Environmental Executive Ed Piñero summed up the consensus of the group, "Together, we will shift the marketplace toward more environmentally sustainable electronic products and services that are available and affordable to all consumers."

In addition to the MOU agencies, about 50 Federal facilities signed up for the challenge in the first year. Partners span 14 agencies and include small facilities like the Department of Agriculture's Beltsville Service Station, which employs 50 people, as well as much larger organizations such as the Department of Health and Human Services' Centers for Disease Control and Prevention, which employs 7,000.

## FEC Goals

Each participating facility develops a baseline of current practices and sets goals in one or more of the following areas: acquisition and procurement, operations and maintenance, and end-of-life management. Of the participating partners, 31 percent are focusing on acquisition and procurement, 29 percent on operations and maintenance, and 49 percent on the end-of-life phase.

## FEC Tools

During its first year, FEC has expanded its offering of Web-based tools and guidance documents to include the following:

**Using Lessons Learned in the FEC Program to Integrate Electronics into Your EMS.** This tool provides resources for locating information and FEC program tools to help Federal facilities incorporate electronic

equipment management into their environmental management system (EMS). The tool also identifies guidance on objectified activities that can "populate" an EMS regarding the environmental aspects of electronics, while at the same time meet FEC program requirements for recognition.

**EMSs and the FEC: What's the Connection?** This fact sheet explains how FEC activities can fit within the structure of a facility's EMS to improve its environmental performance.

**Mentoring Tool:** This document provides information about the FEC mentoring requirements and examples of successful FEC mentoring programs—required to achieve FEC's coveted Gold Level award.

**Total Cost of Ownership:** This tool helps FEC partners to systematically account for all costs related to an IT investment decision. TCO includes all costs, direct and indirect, incurred throughout the life cycle of an asset, including acquisition and procurement, operations and maintenance, and end-of-life management.

FEC tools can be found on the FEC Web site at:

<http://www.federalelectronicschallenge.net/tools.htm> .

In addition to the popular Web tools, FEC provides partners with additional technical resources

**FEC Listserv:** A total of 175 members participate on the FEC listserv, a forum for technical questions, announcements, and information sharing.

**FEC Workshops and Trainings:** Approximately 80 participants attended FEC's educational workshop on February 8 and 9, 2005. Participants had the opportunity to learn more about each of the three electronics stewardship lifecycle phases in detail from national experts as well as discuss their own experiences. One participant noted, "I thought the presentations were wonderful—I really learned a lot!" Others expressed an interest in similar workshops in other parts of the country. FEC plans to replicate this workshop in Washington, DC, in 2006.

**FEC Technical Assistance Team:** Upon joining FEC, every new partner receives a welcome call from FEC's technical assistance team. These experts, along with FEC champions from EPA and GSA, are available to answer technical and program-related questions.

**Monthly Partner Calls:** Hundreds have participated in FEC's monthly partner calls on a variety of popular topics. Consult the FEC Web site for upcoming call topics at

<http://www.federalelectronicschallenge.net/partcall.htm> . ■

## Most Popular FEC Web Tools

- **Checklist for Selection of Electronics Reuse and Recycling Services.** This checklist was designed to guide Federal generators of electronic waste in the selection of a recycler.
- **Data Security and Destruction.** This presentation provides information on removing sensitive data from electronics prior to donation or recycling.
- **Eco-Labels.** This presentation reviews how to use "eco-labels" to acquire environmentally preferable electronic products more easily.
- **Introduction to Donation.** This presentation covers many of the issues associated with donating electronic assets. It addresses liability and explains how to provide guidance to recipients of donated equipment. ■

# FEC Pilot Results



**B**efore the national rollout on America Recycles Day 2004, FEC pilot-tested its approach with nine Federal facilities across the country. Pilot partners invested nearly \$2 million in electronic products in 2003. For the most part, these partners purchased equipment via credit cards, blanket purchase agreements, or contractual acquisitions. While most of the equipment purchased included the ENERGY STAR® label, the presence of other environmental attributes was less common. About half of the partners reported enabling the ENERGY STAR® Stand-By Power Function on at least some of the computers at their facilities.

On average, the pilot partners estimated the average life of computers at their facilities to be about four years. Some facilities replace a set number of machines (e.g., 20 percent) each year, while others could only guess at the average lifespan: "Hardware replacement can range from 1.5 years to 5 years." Pilot partners reported recycling 16,000 units of electronics in their first year of FEC participation and donating or selling an additional 8,600 units. Of the units recycled, most were handled by a recycler that is routinely audited by the partner in such areas as environmental regulatory compliance, corporate stability, insurance coverage, technical processing efficiency, housekeeping, and safety and health.

With the current FEC efforts, we intend to expand the suite of environmental attributes, collect more informative metrics, and in general, truly enhance our electronics stewardship. ■

## FEC Award Winners

**I**n a special White House ceremony on November 15, 2004, FEC recognized its first set of award winners, including (from top to bottom):

### Gold Level

Bonneville Power Administration,  
Department of Energy,  
Portland, Oregon



### Silver Level

Region 10,  
Environmental Protection Agency,  
Seattle, Washington



### Silver Level

Ames Research Center,  
National Aeronautics and  
Space Administration,  
Moffett Field, California



### Bronze Level

Custom House,  
General Services Administration,  
Chicago, Illinois



### Bronze Level

Kluczynski Building,  
General Services Administration,  
Chicago, Illinois



### Bronze Level

Lawrence Livermore National Labs,  
Department of Energy,  
Livermore, California



# Handling Electronics Under Federal Management Regulations

When the decision point is reached that a specific piece of electronic equipment needs to be replaced, the organization has a number of decisions to make:

First, if there is still a need for that type of electronic equipment, then the agency may decide to identify the item under the exchange/sale provisions of the Federal personal property management regulations FMR 102-39 and use the proceeds or trade-in value to purchase a newer or enhanced model of the same type of equipment.

Second, in the case of excess computers, once an agency has determined that they are excess to the need of the agency the computers and related equipment can be offered to schools under the Computers for Learning program in accordance with Executive Order 12999. This is an excellent way to extend the life of the equipment, reduce landfill demand,

and also ensure that the educational needs of our children are being met.

Third, if the equipment simply does not meet the intended needs, the agency should conduct an internal screening to see if the item can be utilization by another program within the agency, as set forth in FMR 102-36.35. Once the agency determines that it has no use for the item internally then it notifies GSA and makes the item available to be picked up by another Federal agency and/or to an eligible donee. Once the property has gone through this screening process and if it is not picked up, then it is offered for sale.

Fourth, the agency may determine that the item has no value other than scrap and make an abandonment and destruction determination under FMR 102-36.305. Under this condition, recycling would be an acceptable disposal method.

Finally, for those items that are

offered for sale but not sold, the holding agency may request from the appropriate GSA regional office, the authority to conduct a local abandonment and destruction of those items. At this point, the use of a bona fide recycler would be appropriate.

Specific guidance for the disposal of electronic equipment was provided in GSA Bulletin B-4 issued on October 24, 2003. Agencies are cautioned to exercise due diligence in identifying and contracting with recyclers. The recycler should provide closed loop documentation through the disposition of the equipment, comply with all environmental laws and regulations, and provide proof of insurance or legal indemnification against liability for improper disposal. A site inspection of the proposed waste management contractor's facility is advisable.

To learn more about the Electronics Reuse and Recycling Challenge visit [www.federalelectronicchallenge.net/errc](http://www.federalelectronicchallenge.net/errc). For more information about GSA Bulletin B-4 go to [www.gsa.gov](http://www.gsa.gov) and click on GSA Bulletins. ■





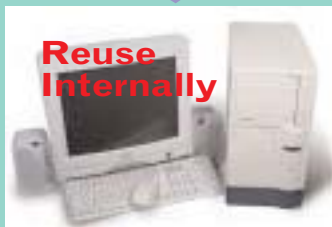
**Obsolete Equipment**



**Exchange/Sale**



**Computers for Learning**



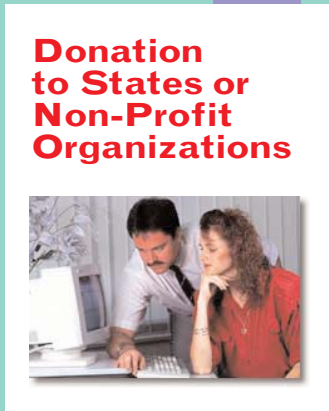
**Reuse Internally**



**Report to GSA**



**Transfer to Other Federal Agencies**



**Donation to States or Non-Profit Organizations**



**Sales**

**\$ \$ \$**



**Abandonment & Destruction: FMR 102-36.35**



**Recycle**

Handling Electronics Under Federal Management Regulations

# The Federal Government Launches Electronics Recycling and Reuse Challenge on America Recycles Day

As part of America Recycles Day (ARD) 2005, the Office of the Federal Environmental Executive, the U.S. Environmental Protection Agency, the Department of Justice, and several other Federal partners launched a special challenge to encourage all Federal facilities to lead by example and recycle, or donate their used computers and other electronic equipment to local schools or Hurricanes Katrina and Rita relief efforts.

Beginning on November 15, 2005, and concluding on Earth Day, April 22, 2006, selected Federal facilities will receive national recognition based on the amount of electronics recycled or donated. EPA and various Regions across the country joined the Challenge by recycling more than 200 pallets (100,000 pounds) of e-waste. More equipment is expected to be reused, donated and recycled during the five-month period that the Challenge will be in place.

The Federal government is the largest information technology (IT) equipment and service purchaser in the world, with an IT budget of more



***Federal Electronics Recycling and Reuse Challenge Speakers at America Recycles Day 2005 opening ceremony (From left to right): Khary Cauthen, Special Assistant to the Chairman of the White House Council on Environmental Quality (CEQ), Luis Luna, Assistant Administrator for the Office of Administration and Resources Management, EPA; Paul R. Corts, Assistant Attorney General for Administration, US Department of Justice; Oliver Voss, Service Center Manager for Office of Acquisition Management's Information Resources Management Procurement Service Center (IRMPSC), EPA; Denise Hicks, Program Manager, Computers for Learning, GSA; Dana Arnold, Chief of Staff, Office of the Federal Environmental Executive.***

than \$60 billion in FY 2005.

Unfortunately when new equipment is purchased, the previous generations of equipment sit unused, tucked away in basements, closets, and warehouses of

Federal facilities across the nation, with no plans for their future. Much of this equipment can either be recycled or reused in the communities where we live and in the workplace.

"More sustainable Federal government electronics end-of-life management practices would yield reduced toxics and solid waste, improved financial performance for individual agencies and throughout the Federal government, and help in the development of a cost-effective national recycling and reuse infrastructure for surplus electronic equipment," said Mr. Khary Cauthen, Special Assistant to the Chairman of the White House Council on Environmental Quality (CEQ).

For more information on how Federal facilities can participate in the Challenge, visit <http://www.federalectronicchallenge.net>, and click on the Electronics Recycling and Reuse Challenge box, or contact Juan Lopez at [Lopez.Juan@ofee.gov](mailto:Lopez.Juan@ofee.gov). ■



***"I challenge every Federal facility to participate in the Federal Electronics Recycling and Reuse Challenge to further promote best end-of-life management practices within the Federal community." Mr. Khary Cauthen, Special Assistant to the Chairman of the White House Council on Environmental Quality (CEQ).***

# The U.S. General Services Administration Facilitates Computer Donations

In FY 2005, the U.S. General Services Administration's (GSA) Computers for Learning (CFL) web site helped agencies donate 27,365 excess computers and related items to 330 schools and non-profit educational organizations.

The CFL program has facilitated more than 130,000 donations since GSA created it in 1999. These donations help provide the equipment

U.S. students need to develop the skills required in a world increasingly dependent on technology. This is consistent with Executive Order 12999, "Educational Technology: Ensuring Opportunity for All Children in the Next Century," which directs Federal agencies to give highest preference to schools and community-based educational organizations when disposing of excess computer

equipment.

On May 1, 2005, the CFL program was transferred from GSA's Office of Governmentwide Policy to GSA's Federal Supply Service. This transfer was made to reorganize operational programs in GSA to the agency's operational components. This transfer continues to promote the value of the program nationally, as the FSS Area Property Officers will be able to encourage Federal agencies within their regional areas to participate.

The CFL web site connects the registered needs of schools and educational nonprofit organizations with available computer equipment from government agencies and the private sector. Schools and other organizations eligible to list their computer needs on the CFL web site include public, private, parochial, or home schools serving pre-kindergarten through 12th grade; public school districts; and non-profit community organizations that collaborate with schools or otherwise to focus on education.

The CFL web site enables Federal agencies to identify and contact schools and educational organizations that need the equipment for their students. Agencies and recipients make the actual transfer arrangements. GSA will generate an annual NonFederal Recipients Report, covering CFL transfers, which will help agencies fulfill their reporting requirements.

GSA's recently revamped web site makes it easier for schools and Federal managers to complete registrations and match donors with recipients. Information on registration and transfers is available on the CFL web site, at [www.computers.fed.gov](http://www.computers.fed.gov).

For more information, please contact: Denise Hicks at [Denise.Hicks@gsa.gov](mailto:Denise.Hicks@gsa.gov) or 703-605-2877 or Joyce Spalding at [Joyce.Spalding@gsa.gov](mailto:Joyce.Spalding@gsa.gov) or 703-605-2877. Also call toll free at 1-866-472-9161. ■



## What about items less than ready to use?

Agencies are encouraged to report electronics to GSA that are in need of repair. For example, it is fairly cheap and easy to retain and install a hard drive, so many states and activities are anxious to repair and utilize computers with removed hard drives. Additionally, Microsoft offers free or deeply discounted Operating Systems to recipients of Federal excess and surplus under its "Fresh Start" program. This encourages recipients to obtain computers that do not have an Operating System installed. For more information about the Fresh Start program, go to <http://www.microsoft.com/education/freshstart/freshstart.asp>. ■

# EPA New England donates computers to Mass. High Schools

Lawrence High School and the Lynn Classical High School this year received free computer equipment through a seven-year-old program of the New England office of the US Environmental Protection Agency. The computer equipment, purchased new, would have cost the schools an estimated \$80,000.

As part of a larger effort, partnering in the Federal Electronics Challenge program, to promote sound management of in-house computer equipment while helping communities throughout the region, EPA New England has donated nearly 600 personal computers and related technology to schools and other non profit organizations over the seven years. This year, Lynn Classical High School received 10 personal computers and a printer and Lawrence High School received 37 personal computers and 20 monitors.

In the last two years, EPA donated 151 cell phones to woman's shelters through the same program.

The computers are donated through a federal government program called Computers for Learning. In 1996, the federal government passed a law mandating federal agencies to give preference to schools and nonprofit organizations for donations of educationally useful federal equipment.

"The PC donation process works out well for everyone involved," said Robert W. Varney, regional administrator of EPA's New England office. "Schools get much-needed equipment to help them with online learning and computer education, while the environment benefits when computers are used for a longer period of time, and not scrapped or disposed in landfills."

In addition, Varney noted, the EPA saves on the cost of having an outside vendor recycle or dispose of the equipment while schools save money on computer purchases that can be

re-directed to meet other needs.

Before the computers are donated, they have to be sanitized to remove all EPA data. In addition, EPA dedicates staff time to test and reconfigure the equipment to ensure that the donated equipment is fully operational. Finally, EPA coordinates with schools to arrange for the logistics of transferring the equipment.

EPA officials estimate it would have cost the agency about \$4,000 to send the 600 computers to a recycling plant.

In the past, EPA New England has donated computers to Framingham,

Brockton, Somerville, Malden, Winthrop, and Dorchester, as well as schools in Rhode Island, New Hampshire, and Maine

Schools and educational nonprofit organizations can request excess computer equipment through the web site of the Computers for Learning Program at <http://www.computers.fed.gov/public/aboutProg.asp>. Although the website is a great tool, agencies do not need to use the CFL website to make transfers under the EO 12999. The primary goal is to increase the number of computers going to the schools, whether through the website or not. ■





# Pacific Northwest Lab Takes Three-Pronged Approach to End-of-Life Electronics



**T**he Pacific Northwest National Laboratory (PNNL) not only conducts science and technology research to meet broad environmental, energy, health, and national security objectives, but it also works to protect the environment as part of its routine operations. PNNL is one of nine U.S. Department of Energy multi-program national laboratories. Because of its environmental commitment, the lab joined the FEC in November 2004 and is implementing a variety of life cycle extension programs, including donation, reuse, and recycling, to meet its electronic equipment end-of-life management goals.

**Extending Useful Life.** To obtain optimal use of its electronic equipment, PNNL is working to extend the useful life of its computers from three years to six years. To accomplish this lofty goal, the lab is focusing on technology upgrades, such as installing larger hard drives, updating video capabilities, and adding more RAM (memory) to its older computers. In addition, PNNL found that rotating computers to staff whose computers do not have to be compatible with specific scientific software extends the useful life of a computer. The lab also is rotating older computers to use in non-mission-critical systems that require

less computing power.

**Donating to Schools and Educational Organizations Via Computers for Learning.** Once computer equipment can no longer be internally redeployed, PNNL donates it to K-12 schools and nonprofit educational organizations via GSA's "Computers for Learning Program." The program is highly successful—PNNL has donated 334 computer systems to date in 2005. PNNL also plans to help donation recipients recycle the equipment in an environmentally sound manner once it reaches the end of its useful life. In 2006, the lab will begin to label all donated equipment with recycling instructions. Furthermore, PNNL is investigating partnering with schools that specialize in information technology as donation outlets for nonworking computers to assist students learning to dismantle and repair broken electronics. If this endeavor is successful, PNNL expects to significantly increase its electronics donation program.

**Redeploying Electronics for Reuse.** Computer equipment not eligible for the "Computers for Learning Program" is transferred to other Federal agencies or universities, which, along with the lab's internal redeployment program, accounted for approximately

40 percent of the equipment transferred for reuse in 2004. The other 60 percent was transferred to a local community reuse organization.

**Ensuring Environmentally-Sound Recycling.** While it attempts to donate or reuse a significant portion of its older electronic equipment, PNNL is also developing a recycling vendor contract, which will be used to manage electronic equipment that cannot be repaired, reused, or donated. The contract incorporates principles roughly parallel to those found in the FEC's "Checklist for the Selection of Electronics Reuse and Recycling Services."

According to Chris Armstrong, Asset Management at PNNL, the best way to manage electronic equipment at the end of its useful life is to plan far in advance—preferably at the procurement stage. In 2005, PNNL notified the lab's main computer equipment vendor of plans to include at least three environmental criteria in the next contract solicitation. Mr. Armstrong noted, "What we purchase today becomes our disposal problem tomorrow. FEC helps organizations recognize the need to imbed more environmental purchase, management, and end-of-life practices in operations that use electronic equipment."

Participation in the FEC is yet another example of PNNL's commitment to responsible environmental practices, which helped the lab achieve registration of its Environmental Management System to the ISO 14001:2004 standard and obtain membership in the U.S. EPA National Environmental Performance Track program. Eric Damberg, of PNNL's Environmental Management Services, finds, "It takes an integrated approach by procurement, operations, asset management, and environmental management staff to fully implement the Federal Electronics Challenge at the lab."

For more information, please contact Sandra Cannon at [sandra.cannon@pnl.gov](mailto:sandra.cannon@pnl.gov) or 509-529-1535. ■

# Federal Prison Industries, Inc. Recycling Group: Blazing the Way into the 21st Century

**W**hat do Sanford and Son and Federal Prison Industries Recycling Business Group have in common? Everything and nothing! Fred Sanford, a cantankerous old junk dealer (played by Redd Foxx in a TV comedy series from 1972-1977), made a living managing a junkyard with his son Lamont. The Recycling Business Group began as a simple salvage operation and has evolved into a high tech business committed to keeping e-waste, electronic waste out of landfills.

UNICOR (the trade name for Federal Prison Industries) is a wholly owned government corporation whose mission is to train and employ inmates housed in Federal prisons. UNICOR receives no Congressional appropriations but instead sustains its operations through the sale of goods and services to Federal agencies.

UNICOR started its first electronics recycling facility at the Federal Correctional Institution (FCI) in Marianna, FL in 1994. Since that time, UNICOR has become one of the premier electronics recyclers in the country. UNICOR has been a leader in the protection of data and environmentally compliant recycling methods.

The efforts of the recycling group were acknowledged in 1999. The recycling centers at both Elkton, OH and Marianna, FL were the recipients of the prestigious White House Closing the Circle Award for their electronics recycling activities.

In order to defray the cost of transportation, UNICOR has eight locations across the nation:

Atwater, CA	Elkton, OH
Ft. Dix, NJ	Lewisburg, PA
Marianna, FL	Texarkana, TX
Tucson, AZ	Landover, MD

**National Capital Recycling Center:** This new collection facility, opened in partnership with the Department of Justice Management Division, will permit all agencies in the greater Washington, DC area to drop off their used electronic equipment free of charge for recycling at one of the seven recycling facilities.

**America Recycles Day 2005 Participation:** In order to encourage and assist Federal agency participation in this event, UNICOR, in conjunction with the Federal Electronics Challenge, recycled approved electronics at no recycling fee to Federal agencies participating in this challenge.

**Project Green-Fed:** This pilot project, in partnership with the Arkansas Department of Environmental Quality, was initiated in September 2005 for individual consumers to recycle electronic items from their home. UNICOR established a toll free number for all residents of the State of Arkansas to call and receive a packaging kit to box up and mail their old electronic equipment to

the Texarkana facility. The kit includes the shipping box, sealing tape, and a mailing label, all provided free of charge! If successful, this program will be assessed to expand to the entire continental United States.

**Professional Certification:** UNICOR is committed to improving all operations within the Recycling Group. It welcomes outside, objective, third-party review of its operations. UNICOR recently completed an audit of its facilities' operations and has begun an ambitious two-year plan to have all factories ISO 9001:2000 - Quality Management Systems certified. Texarkana achieved this goal in April, 2005. At this time, UNICOR's certification authority has approved the Quality Manuals of the remaining six recycling factories. Also, Texarkana achieved International Association of Electronics Recyclers certification in September 2005 - only the sixth recycling facility to do so in the United States.

For more information, please contact Larry Novicky at [lnovicky@central.unicor.gov](mailto:lnovicky@central.unicor.gov) or 202-305-3732. ■



# EPA's READ Services Contracts Begin to Demonstrate Results

In an effort to assist Federal agencies in the environmentally responsible disposal of obsolete electronic equipment, EPA awarded its first Government Wide Acquisition Contract (GWACs) for Recycling Electronics and Asset Disposition (READ) services. The first orders were issued in June, 2005, for EPA's HQ, Research Triangle Park, and Atlanta regional offices. Since June, more than half of EPA's 10 regional offices have issued orders under the GWAC with the remaining regions to be completed by the end of CY 2005. The results to date are considered noteworthy. Recycling costs are considered affordable and inexpensive. In addition, READ contractors are providing real-time, on-line reporting information documenting their recycling results.

The READ GWAC provides Federal agencies with a dependable method of properly managing electronic inventories, recycling electronic equipment, and disposing of excess or obsolete electronic equipment in an environmentally responsible manner. The Office of Management and Budget (OMB), pursuant to the Clinger-Cohen Act, designated EPA to serve as the Federal executive agent for government-wide acquisition of information technology recycling and asset disposal services. The OMB designation is effective through June 1, 2009.

The GWAC comprises seven contracts with small businesses having the capability to provide geographic coverage throughout the United States. The GWAC covers recycling and proper disposition of PC desktops, monitors, laptops, printers, fax machines, shredders, copiers, cellular phones, standard phones, scanners, CRT TVs, and other miscellaneous electronic peripherals. At the same time, appropriate levels

of security for sensitive electronic data are ensured and an audit trail of the equipment's final destination is maintained to ensure that reclamation and recycling efforts are reportable. The READ GWAC also establishes a means to realize and maximize potential revenues from usable electronic equipment currently in storage through a share-in-savings program. Share-in-savings will allow contractor and customer agencies to offset and reduce their recycling costs.

Each year, the Federal government invests considerable resources in electronic assets. In FY 2005 alone, it is expected that the Government will expend almost \$60 billion on Information Technology (IT) equipment, software, infrastructure, and services. Given the fact that the Federal government has 2 million employees and the average life cycle of standard IT equipment is three years, it is estimated that it disposes approximately 10,000 computers every week.

The increased spending on IT equipment and eventual disposal of antiquated IT products are contributing to a complex waste stream which poses challenging management issues and constitutes potential liability concerns for Federal facilities. Electronic equipment contains hazardous material such as lead, mercury, chromium, cadmium, and beryllium. If mishandled, these toxic materials could be released into the environment. The READ GWAC is the first step in addressing these IT disposition issues on a government wide basis.

Additional information regarding the READ program can be found at [www.epa.gov/oam/read](http://www.epa.gov/oam/read) or by contacting Oliver Voss at 202-564-4514. ■

# EPEAT Strives to Simplify Green Purchasing of Computers

These days, when an organization needs to purchase electronic products, it will likely seek out “greener” versions of the items, such as those that have been refurbished or use

less energy. To help support this growing trend, the Zero Waste Alliance is developing the Electronic Product Environmental Assessment Tool (EPEAT) through an EPA cooperative agreement. EPEAT is designed to evaluate the environmental performance of computer desktops, laptops, and monitors throughout their life cycle and includes both a set of criteria for assessing products and a management system for their application and maintenance.

Currently, the EPEAT program is working to identify a host organization to manage and operate the tool; conducting a public review of the final draft of the environmental performance criteria; and developing a database that vendors can use to submit self-declarations and purchasers can use to view lists of EPEAT-qualified products.

## EPEAT Standard

The EPEAT standard is a rating system that includes performance criteria in eight categories:

- 1) Reduction/elimination of environmentally sensitive materials
- 2) Materials selection (including recycled and biobased content)
- 3) Design for end-of-life
- 4) Energy conservation (including ENERGY STAR® requirements)
- 5) Product longevity/life cycle extension
- 6) End-of-life management
- 7) Corporate performance
- 8) Packaging.

Federal purchasers using this standard will be guaranteed to meet their green purchasing requirements for these product categories. The standard is currently in draft form and is slated to be finalized by spring 2006. Federal agencies that signed the Federal Electronics Challenge MOU were invited to vote on the current standard.

## The Database

Recently, EPA conducted a beta test of the EPEAT database—a web-based interface for product information in which manufacturers had the ability to test the system by entering

“dummy data” on fictitious products. Purchasers then had a week to surf the database and review the site’s available data. After this test period, both manufacturers and purchasers provided comments on the usability of the system. The database will be revised based on

these comments and then passed on to the new EPEAT host organization.

## Federal IT Specifications

To date, the following Federal agencies have added EPEAT into their RFPs or contracts: the Department of the Army, Department of Veterans Affairs, Department of Homeland Security, Department of Energy, Department of the Interior, and EPA. These contracts totaled close to \$12 billion in products and services.

For more information on EPEAT, please visit [www.epeat.net](http://www.epeat.net) or contact Holly Elwood at [elwood.holly@epa.gov](mailto:elwood.holly@epa.gov) or 202-564-8854. ■



# EPA's Region 9 Facility "Plugs-In" Electronics to EMS

An environmental management system, or EMS, addresses the needs of a broad range of interested parties and the evolving needs of society for environmental protection. It is a set of management processes and procedures that allow an organization to analyze, control, and reduce the environmental impact of its activities, products and services, and operate with greater efficiency and control. An EMS encourages an organization to continuously improve its environmental performance. Because of its size, geographic distribution, and range of activities, Federal agencies have the potential to significantly impact the environment. A well-implemented EMS helps manage that impact.

A primary purpose of an EMS is to coordinate environmental management activities into one integrated framework that enhances and improves the overall efficiency and effectiveness of these existing, but separate, environmental programs. The FEC is an environmental management program that can exist within the

structure of a facility or agency EMS to improve environmental performance.

## Improved Electronics Management Set to Reduce Energy Usage by 10 Percent

To identify potential energy savings, EPA Region 9's EMS energy subcommittee recommended an audit of the 20-story office building in San Francisco that houses the Region's nearly 900 employees. The audit revealed that computer power management and monitor power management could save an estimated 10 percent in total energy usage. Although this savings was not as substantial as the estimated 30-40 percent reduction for swapping out existing fluorescent bulbs, it required no financial investment. Given the potential energy savings and the lack of capital costs, EPA Region 9 quickly implemented the new power management programs. It configured computer monitors to use the "sleep" mode instead of a screen saver. How

did staff respond? "A few people were confused at first because their screens were dark instead of showing a screen saver," says Region 9 Environmental Protection Specialist Adrienne Priselac, "but they soon realized that they just needed to hit any key to restore power, just as they had done in the past."

## Budget Cuts Softened By Extending Useful Life of Electronics

With funding eliminated for new electronics purchases, Region 9 needed to find creative solutions for meeting user needs. It set a goal to reuse 30-40 percent of existing electronics. The Region is assessing which applications each employee needs to do his or her job and is allocating electronic equipment accordingly. Through these efforts, the Region has extended the average lifespan of computers to five years.

## Region Safely Recycles 10 Tons of Old Electronics

The Region's EMS recycling subcommittee tackled the more than 10 tons of electronics stored in an off-site warehouse. Stockpiling computers began in response to a seven-year lawsuit requiring the Agency to maintain its hard drives. Not only did EPA keep the hard drives, it also kept the monitors. In addition to the high cost of safely recycling this quantity of electronics, the Region also struggled with finding a reputable recycler. EPA Headquarters provided funds to cover the recycling costs, and the new READ contract helped EPA find a qualified vendor. According to Priselac, who also works on the EMS recycling subcommittee, "our IT staff was uncomfortable using recyclers who had not been audited." Although the costs for safe recycling are high, Priselac notes that costs will fall off, especially after the first year when the facility has this huge initial volume of stockpiled materials recycled.

For more information, please contact Zac Appleton at 415-972-3321 or [Zac.Appleton@epa.gov](mailto:Zac.Appleton@epa.gov) . ■



# “Greening” Electronics Purchasing at Veterans Affairs

The second largest of the 15 Federal Cabinet-level departments has decided to “green” its electronics purchasing process as part of the



FEC. Since signing the FEC MOU in

November 2004, the Department of Veterans Affairs (VA), which already takes an active role in ensuring the proper disposition of electronics, began exploring ways to integrate environmentally preferable attributes into its electronics acquisitions.

Among the VA’s acquisition and procurement goals under the FEC was to ensure that “green” contract language would be incorporated in the Procurement of Computer Hardware and Software (PCHS)-3 contract. The VA took a number of steps over the course of a year to advance this goal. For instance, representatives from the VA Office of Acquisition and Material Management and Office of Information and Technology worked closely with the FEC and the EPA on advancing EPEAT. While the VA continues to work on the PCHS-3 contract, the agency’s goal is to ensure that 100 percent of desktop and laptop computers and

monitors purchased by 2008 possess at least two environmental attributes described in EPEAT, in addition to the ENERGY STAR, label this equipment already carries.

Through the inclusion of green contract language, the VA is also hoping to encourage its electronics vendors to incorporate information about the environmental features of their products in existing training programs and materials. In addition, the use of EPEAT can help purchasers to more quickly identify energy efficient computer desktops, laptops, and monitors—all the more important

as Federal agencies heed the President’s call to reduce energy consumption in the wake of the damage done to the nation’s energy-producing infrastructure by Hurricanes Katrina and Rita.

As the VA notes, purchasing “green” electronics facilitates and improves the process for reuse or end-of-life disposition. Under a Memorandum of Understanding with UNICOR, VA shipped more than 1.4 million pounds of obsolete computers, monitors, and other office electronics to UNICOR for reuse or recycling in fiscal year 2004. VA also donates computers to schools as authorized by Executive Order 12999, both directly and through GSA’s Computers for Learning (CFL) Program. VA donations accomplished through the GSA CFL web site alone included 1,586 excess computers and peripherals, with an acquisition value of more than \$2 million.

Over the past year, the VA has produced Intranet Broadcast





***Since 2002, the Department of Veterans Affairs has been participating in America Recycles Day events that promote the recycling of unwanted and obsolete electronics. Pictured in front of a collection point for VA employees' personal, old electronic equipment are, from left to right: Freddie Martinez, Chris Matos, and Barbara Matos of the VA Office of Acquisition and Materiel Management.***

Announcements, internal newsletter articles, and electronic mail messages to raise employee awareness about the Department's participation in the FEC and the importance of environmentally sound electronics management. The VA also issued an FEC Policy Memorandum encouraging all VA administrations and facilities to join the FEC and take direct advantage of its educational and technical tools as well as its networking opportunities.

The VA continues to work to expand the reach, and improve the

effectiveness of, the FEC. For instance, VA headquarters representatives participated in a national conference call with the Veterans Health Administration's Green Environmental Management System (GEMS) Coordinators and introduced them to the FEC. Information was provided about the FEC EMS module, a tool that can help VA facilities ensure the effective integration of electronics management into their environmental management systems.

VA is planning to track its successes using the FEC's annual reporting form,

which VA representatives reviewed, tested, and commented. "VA takes pride in being a charter signatory to the MOU," noted Barbara Matos, the FEC coordinator at VA Central Office, who hopes to demonstrate the agency's improvements through the reporting form. "We are committed to managing our electronic assets in an environmentally sound and energy efficient manner throughout their life-cycle."

For further information, contact Barbara Matos at 202-273-6121 or [Barbara.Matos@va.gov](mailto:Barbara.Matos@va.gov). ■

## Second Annual Federal Electronics Stewardship Conference

**When:** February 7-8, 2006

**Where:** National Institutes of Health (NIH)/National Library of Medicine Lister Hill Center Auditorium in Bethesda, Maryland.

**What:** The second annual Federal Electronics Stewardship Conference will showcase success stories of Federal Electronics Challenge (FEC) partners, as well as provide an opportunity for FEC partners and other federal facilities to share ideas and discuss best practices related to environmentally sound electronics purchasing, use, and end-of-life management. For more information, go to [www.federalectronicchallenge.net/news-eve2.htm](http://www.federalectronicchallenge.net/news-eve2.htm) or e-mail [nazcf.laura@epa.gov](mailto:nazcf.laura@epa.gov). ■

## U.S. Department of Energy (DOE) Integrates Federal Electronics Challenge (FEC) Into Environmental Protection Program Goals

The Office of the Secretary of Energy recently approved an important change to DOE Order 450.1, Environmental Protection Program, establishing new Pollution Prevention and Sustainable Environmental Stewardship goals, and incorporating FEC strategies for achieving the new goals. The Order requires DOE sites to integrate pollution prevention into their Environmental Management Systems, and provides a number of supporting strategies for achieving the new goals. FEC-related strategies put forth in the Order include green electronics procurement, enabling electronics power management capabilities, and recycling of surplus (end-of-life) electronics.

Under the leadership of John Spitaleri Shaw, DOE Assistant Secretary for Environment, Safety, and Health (and

Agency Environmental Executive), the Office of Pollution Prevention and Resource Conservation developed five performance-based goals and over thirty strategies for achieving the goals, all of which underwent an intensive six month departmental review, comment and resolution process in 2005. Two of the goals, Environmentally Preferable Purchasing and Post-Consumer Material Recycling, include a number of FEC-related strategies for DOE sites consideration, such as specifying a preference for procurement of environmentally preferable electronics qualified through the Electronic Procurement Environmental Assessment Tool (EPEAT) or its successor; and utilizing accredited recycling services as an environmentally compliant means for disposition of end-of-life electronics. The

full-text of DOE Order 450.1, Chg 2, along with the new Pollution Prevention and Sustainable Environmental Stewardship goals and strategies is available for viewing at <http://www.directives.doe.gov/pdfs/doe/doetext/neword/450/o4501c2.pdf>.

Now that the change to the Order has been approved and the new Pollution Prevention and Sustainable Stewardship goals are in-place, DOE expects to begin reporting on its performance achieving the goals in the "Greening the Government" progress reports prepared annually pursuant to Executive Orders 13101 and 13148.

For more information on DOE Order 450.1 Chg 2, contact Jane Powers in the DOE Office of Pollution Prevention and Resource Conservation at 202 586-7301 or at [jane.powers@eh.doe.gov](mailto:jane.powers@eh.doe.gov). ■

### Office of the Federal Environmental Executive

White House Task Force on Waste Prevention and Recycling

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