



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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**EPA Region 8 Information Systems Program  
Standard Operating Procedure (SOP)  
For IT Asset Management  
Date: 2/19/09**

**PURPOSE:**

Region 8 is committed to improving Electronics Stewardship in the Region and meeting the Federal Electronics Challenge (FEC) Lifecycle mandatory requirements. Through the Region's EMS, Federal Acquisition Regulation, and our participation as Partner and Champion in the Federal Electronics Challenge (FEC), we are committed to improving environmental performance with our electronic assets in all parts of its life-cycle, from purchasing, to use, to end-of-life.

The purpose of this document is to map out the process by which US EPA Region 8 information technology (IT) assets are managed throughout their life cycle from purchase to final disposition. This guidance to help reduce lifecycle costs of our electronic equipment, streamline, and improve existing asset management practices.

**Covered Electronic Devices:** These procedures apply to electronic devices from the Region 8 facility or lab and/or equipment that is purchased with EPA funds. At a minimum, this includes: CPUs, monitors, laptops, computer peripherals (hard drive, keyboards, mice) servers and server components, printers, fax machines, televisions, remotes, VCRs, DVD players, projectors, video/digital cameras, telephones, copy machines, communication and navigation equipment, personal digital assistants (PDAs), and cell phones.

The procedures identified in this SOP identify three phases of the asset lifecycle:

- Acquisition and Procurement – specifications, total cost of ownership, purchase requests and orders;
- Operation and Maintenance – receiving, distribution/installation, inventory tracking, mid-life operations and maintenance, upgrades;
- End of Life - preparation for “green disposition,” determination for reuse or recycling.

A flowchart diagram is included in this SOP as a visual aid to help illustrate the process.

## **PROCEDURE:**

### **I. Acquisition and Procurement**

The IT equipment purchased for regional use should be environmentally preferable and Electronics Product Environmental Assessment Tool (EPEAT) GOLD registered products, when applicable. Specifically, to meet our FEC goals, we need to have 95% of computer desktops, laptops, and monitors purchased be EPEAT registered, and 75% of all printers, copiers, fax machines, and televisions purchased or leased this year be certified under an eco-label program like ENERGY STAR<sup>®</sup> or include at least three positive environmental attributes. The following acquisition and procurement procedures have been implemented for EPA Region 8:

- a. The Information Systems Program (ISP) is responsible for specifying IT equipment procurement standards. These standards are limited to computers, laptops, and monitors that are EPEAT Gold rated. These equipment standards are reviewed by the ISP desktop administrator twice in a Fiscal year to make sure the equipment has maintained its EPEAT Gold rating. Electronic products that are currently not listed on the EPEAT web site must meet at least three key environmentally preferable attributes. The originator of a procurement request (PR) is responsible for determining if the electronic product qualifies for three of those attributes and list in the comment section of the PR which attributes were met prior to submission of the PR.
- b. Once evaluated by ISP representatives, the procurement standards for computers are published on the Region 8 intranet web page (Region 8 Standards for EPA Personal Computers and Printers). Program offices in Region 8 shall use this web page to identify approved regional computer equipment specification prior to placing any computer equipment orders.
- c. Once a program area has identified computer equipment needs, and determined which of the IT procurement standard equipment meet those needs, the program area initiates a procurement request (PR) for IT equipment. All PRs for IT equipment must be routed to ISP personnel for verification of approved equipment. Once the PR is approved, it is routed by ISP to Infrastructure to be logged for handling by shipping and receiving. Infrastructure will forward the PR to the Procurement Office. If the equipment is not the ISP specified procurement standard, the PR is disapproved and returned to the originator. If for some reason non-standard equipment is procured by a program office and approved by ISP for valid business justification, it still must meet EPEAT Gold or environmentally preferable product standards.
- d. IT equipment arriving on-site from a valid purchase order (PO) is received by Infrastructure (INF) at the shipping and receiving dock. Validation against the original order takes place at this time by INF contract personnel. Once verified and recorded into INF's property database, all computer equipment received by Infrastructure is sent to ISP for internal distribution and management. ISP personnel physically receive the equipment and log it as received by the ISP Custodial Officer (CO). The ISP CO maintains a yearly receiving log spreadsheet where delivery instances are entered. The equipment is then moved immediately to the ISP PC Storage room for processing. Given the rare instance where computer equipment is purchased without ISP's approval and received by INF,

ISP and INF will coordinate to verify if the equipment meets EPA Region 8 standards. If standards are met, the equipment is accepted by ISP, and the originator notified to contact ISP for all prior approvals in the future. If the computer equipment is non-standard, ISP will contact the originator and request the equipment be returned to the vendor and standard equipment be procured in its place. Otherwise proper business justification must be provided for such non-standard equipment.

- e. Once in the ISP Storage area, the equipment is added to the ISP inventory by ISP as “ISP storage” and prepared for distribution to the user base.

## **II. Operations and Maintenance**

As part of EPA Region 8’s Energy Saving Policy, ENERGY STAR features will be enabled on 100 percent of eligible Region 8 computers (desktops and laptops) and monitors. The following operations and maintenance procedures have been implemented for EPA Region 8:

- a. Asset requests from the user base are received through the ISP Service Desk. These requests, including reception of new equipment from program area procurements are handled by ISP.
- b. If the request is for an asset that was newly procured by programmatic areas, the equipment is assigned to the requesting users. If the request is for a situation that requires existing assets (e.g. user moves, adds, changes), the asset must be reviewed for compatibility with existing operating system and hardware image requirements.
- c. If the existing hardware in storage does not meet the minimum image requirements (e.g. memory and disk space) the hardware is upgraded when possible with memory or disk space prior to being assigned to the user base.
- d. The asset is then assigned to the user by ISP. ISP then updates the ISP inventory with the appropriate user information and deploy the asset to the user and verify proper operation.
- e. Periodic automated in-place inventory updates are performed by ISP. This automated inventory tracks IT assets that are network attached and can be scanned for asset information and verified in a centralized ISP inventory database. Currently this automated process is performed on a monthly basis. A biannual review of computer hardware inventory is also completed.
- f. Employee moves, additions, and changes are tracked through the ISP Service Desk. With user moves, the IT asset is tracked with the user to the new location and the ISP inventory is updated accordingly once the move is completed. With the on-boarding of new users (e.g. adds) new IT assets are assigned and the process is followed as described in steps 2a through 2e. With user changes, moves, or terminations, the IT asset is returned to the ISP storage area and the ISP inventory is updated to reflect the location as ISP Storage and is considered available for internal re-use and re-distribution to Regional personnel at that time.
- g. For those IT assets that are not always network connected, periodic physical inventories and patching of the computer operating system and installed applications must be done. Currently non-networked computers (e.g. stand alone laptops for field use, loaner laptops for checkout, etc) are called in to the ISP Service Desk for inventory and patching updates every two months. Procedures

for this process are the responsibility of the ISP Service Desk personnel. Employees are not permitted to move assets.

### III. End of Life

In the spirit of environmental stewardship, it is important to work to reduce the environmental impacts that information technology can create. All electronics collected for reuse or recycling will be handled according to procedures outlined in the “U.S. EPA Region 8 EMS Procedure for Universal Waste - Electronics Devices” dated August 2005. This document provides guidance regarding the requirements of the Universal Waste Regulations [40 CFR 273] of the Resource Conservation and Recovery Act (RCRA) as it applies to the management of our electronics for reuse and recycling. In addition, it is the policy of EPA Region 8 to:

- Encourage the maximum reuse of all IT equipment so that a minimal amount of equipment needs to be recycled.
- Ensure that 100% of non-reusable electronic equipment disposed of annually will be recycled using environmentally sound management, as defined by EPA’s Plug-In To eCycling guidance.

The following end of life procedures have been implemented for EPA Region 8:

- a. When a piece of equipment is identified for excess due to performance or hardware incompatibility, it is returned to the ISP storage area for end-of-life processing by ISP. The ISP inventory is updated to reflect the location as “ISP storage.”
- b. The appropriate asset condition codes are applied to the equipment by ISP. These codes are as follows: 1-excellent, 4-usable, 7-repairable, X-salvage, S-scrap.
- c. If the device is broken and/or not considered usable, parts such as memory chips and disk drives are removed and held as spares by ISP for reuse in existing equipment.
- d. The hard disk is wiped of all EPA data and the equipment is left in a reusable state for use by other outside organizations as defined by the *ISP Hard Drive Wipe/Erasing Procedure for Donation/Transfer SOP* (Attachment 1).
- e. ISP contacts INF to schedule a pickup of the equipment for proper disposition defined by INF procedures. ISP inventory is updated to reflect equipment as “excess.”
- f. Reuse/Donation/Transfer: When electronic equipment is donated or transferred externally, the Property Manager will provide all recipients of donated equipment with [proper instructions](#) on how to dispose of the equipment in an environmentally sound manner at the end of life (Attachment 2).
  1. If in usable condition it is advertised within EPA for 2 weeks, and transferred to any interested EPA office. If no takers we will remove it from the originators Custodial Area, place into the holding Custodial Area and transfer the item to storage.
  2. Donated through Computers for Learning (CFL) program. This program allows transfer of excess federal computer equipment to schools and educational nonprofit organizations, giving special consideration to those with the greatest need. The CFL program implements Executive Order (E.O.) 12999, *Educational Technology: Ensuring Opportunity for*

*All Children in the Next Century*. E.O. 12999 directs federal agencies to give “highest preference to schools and nonprofit organizations in the transfer of educationally useful federal equipment.”

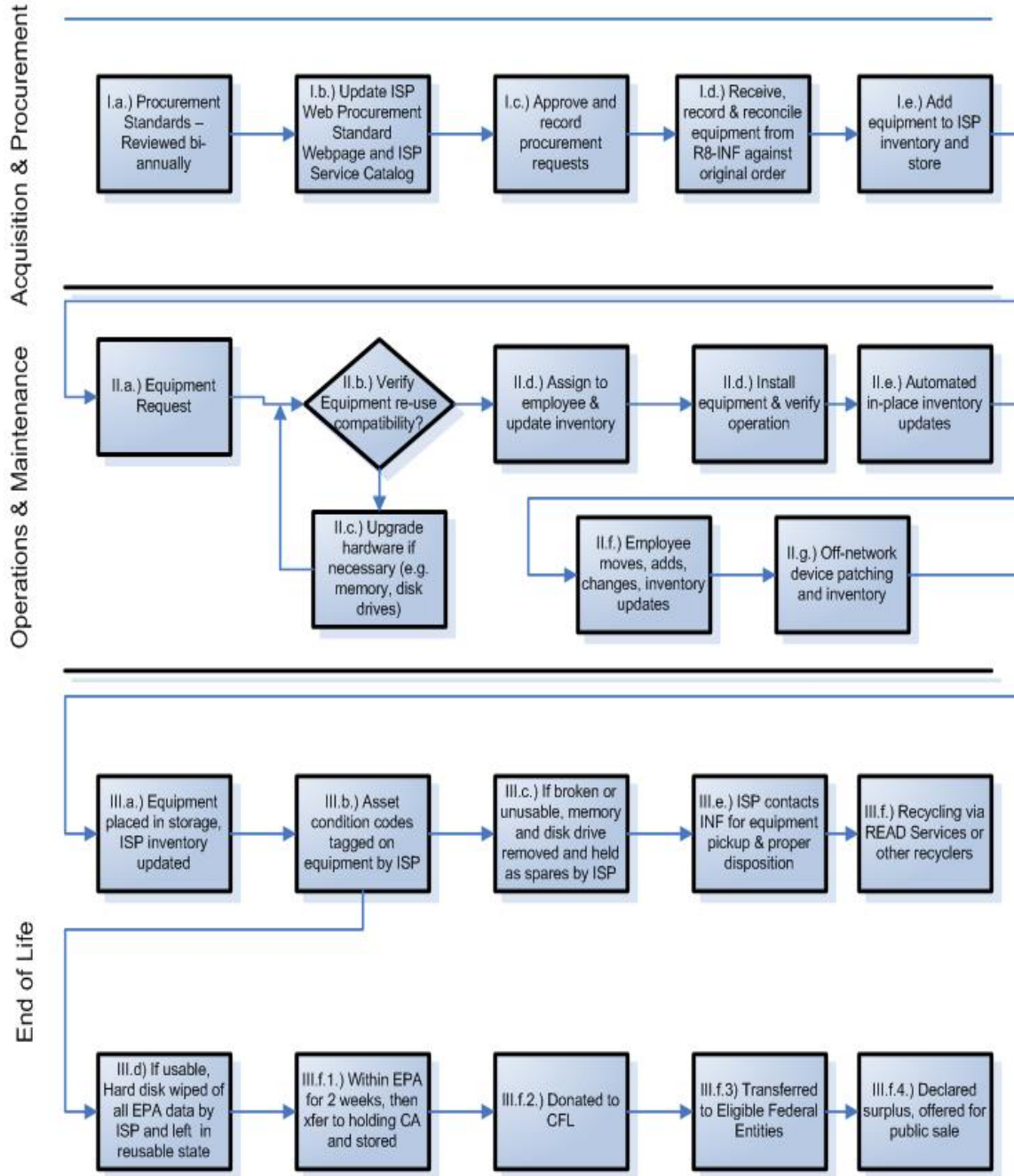
3. Declared Excess and Reported to GSA - If the used electronics can not be reused within the Region 8 facility, and are not transferred through the CFL Program, they are considered excess personal property and must be reported to GSA for possible transfer and utilization by other federal agencies or authorized recipients.
4. Declared Surplus - If Region 8’s used electronics are not donated and can not be reused by another federal entity, they are considered surplus personal property and are offered to the public for sale.

g Recycling

1. Excess electronic equipment that is not reused, transferred, donated or sold shall be recycled utilizing the Recycling of Electronics and Asset Disposition (READ) Services.
2. If READ is not utilized, Region 8 will seek to identify recyclers that conform to a national certification program, EPA’s Plug-in to eCycling Guidelines for Material Management (<http://www.epa.gov/osw/partnerships/plugin/guide.htm>) or the Responsible Recycling Practices (<http://www.epa.gov/epawaste/conservematerials/ecycling/r2practices.htm>) as a way to assure increased environmental performance of the recycler.

# US EPA Region 8 Information Technology Asset Management Process Flowchart

Tuesday, March 03, 2009



## ATTACHMENT 1:

### Information Systems Program Standard Operating Procedures (SOP)

#### Hard Drive Wipe/Erasing Procedure for Donation/Transfer

February 19, 2009 – DRAFT

#### Procedure:

1. Equipment is received or removed from floor by ISP Technician. Technician must determine if equipment is at end of life and no longer meets EPA Region 8 minimal hardware requirements. (64mb memory (recommended 128mb); 10gb minimum, 20gb max.; minimum processor size, i.e., PII.)
2. Power on computer (Desktop/Laptop) to confirm all hardware functions properly. Once confirmed power down and remove hard drive.
3. Identify if hard drive size meets minimal requirements for transfer or donation. Remove hard drive and prepare for wipe. (See Wipe/Erase process below).
  - If hard drive is non-functional it must be degaussed and surplus procedures must be followed. See: G:\SOP's\Surplus Equip SOP.doc
4. If hard drive is 40gb or higher and condition is useable, image hard drive and retain for future deployment.

#### Process:

1. Connect Parallel Drive Cables and power cables located on top of the OmniClone Xi unit to hard drive(s). This unit is located in 3<sup>rd</sup> floor Hardware Storage/PC Test Room. (Note – Up to 6 Drives can be connected at a single time)
2. Power ON the OmniClone unit. Power button is located on back of unit
3. From anywhere in the menu system, press the “Set” Button to enter settings menu.
4. Press “Cloning Mode” icon that appears in the upper left-hand corner. A list of available cloning modes appears.
5. Press the “**WipeOut**” icon, the Wipeclean Target settings screen will appear.
6. Touch the “**Passes**” icon to set the number of passes (7). Use the numeric keypad to enter the number of passes. \*\* Note – Minimal Passes approved by Department of Defense is (3), EPA Region 8 requires (7) passes. Press OK when finished.
7. Touch the “**Value**” icon to scroll through the different patterns. (Value – Options are 0xf6, 0x00, 0xff, and random (**Dept of Defense Default**)). The Random setting will fill the Target drive with a pseudo random pattern.
8. Touch the “Speed” icon to choose the best speed if necessary. (Note – the unit will automatically adjust itself to the best speed for attached drives)
9. Press the Start/Stop button twice.
10. A message will appear stating portions of your Target drive will be overwritten. If you are prepared to continue, choose <YES>, if you wish to abort operation, choose <NO>
11. If <YES> is chosen, a second message will appear stating that you are about to erase the target. If you wish to continue press <YES> (You may abort process by pressing <NO>)
12. When <YES> is chosen, the WipeClean target operation will begin and a status screen will appear. You will be notified on the screen when the erase process is completed. Press the “BACK” icon to return to the Main Menu.
13. Duplicate functional image with Windows operating system along with placing the Restore CD from Dell in the CD ROM drive.
14. Power of machine and remove hard drive(s)



15. Place newly wiped and reformatted hard drive in computer and boot to the Windows splash screen and shut down.
16. Process completed. (Follow Equipment Surplus procedures)

**Congratulations!** Your organization has just received electronic equipment that previously belonged to the Federal Government. The Federal Government asks that once the electronic equipment you have received becomes obsolete, you pursue an environmentally friendly disposal method – recycling!

***Did You Know...?***

- In 2005, used or unwanted electronics amounted to approximately 1.9 to 2.2 million tons. Of that, about 1.5 to 1.9 million tons were primarily discarded in landfills and only 345,000 to 379,000 tons were recycled.
- Yet, recyclers recover more than 100 million pounds of materials from electronics each year!

***You can help by recycling your old and broken electronics!***

### **Finding an Electronics Recycler**

There are a number of simple ways to find an electronics recycler:

- Try contacting the Federal Agency that donated the equipment to you. They may have a take back program in place to assist you with environmentally sound disposal, or may be able to refer you to a reputable recycler.
- If the Agency is unable to assist you, the U.S. Environmental Protection Agency's eCycling Web site includes links to donation, recycling and manufacturer take-back Web sites: <http://www.epa.gov/epawaste/consERVE/materials/ecycling/donate.htm>.
- You may also contact your local or state environmental or solid waste agency for assistance. They may have local collection programs or databases of vendors who recycle obsolete electronics.

Select a recycler who can provide references and can tell you specifically where your electronics will go and what will be done with them. Consider using a recycler that follows the Responsible Recycling (R2) Practices for Use in Accredited Certification Programs, available at: <http://www.epa.gov/epawaste/consERVE/materials/ecycling/r2practices.htm>.

### **Electronics Recycling Costs**

Recycling costs will depend on the quantity of equipment you have, what type(s) of equipment you have for recycling, as well as where the equipment is going. In some cases, recycling may be free and you will only have to pay for transportation.

### **Need more information?**

For more information on electronics reuse and recycling, visit the U.S. Environmental Protection Agency's eCycling Web site: <http://www.epa.gov/ecycling/>.

For more information on the Federal Government's electronics management go to: <http://www.federalelectronicchallenge.net>