

Best Practices for E-cycling

by



Freedom Electronics
Recycling, Inc.

Hagerstown, Maryland

E-cycling with experience and integrity

Freedom's mission is to provide comprehensive, secure, and environmentally sound e-waste solutions to government agencies, government contractors, and businesses large and small.

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By the year 2007, it is estimated that 500 million computers will become obsolete.

Currently only about 11% are being recycled. A small percent are hitting the landfills, a good number are being exported to developing countries, and the rest are sitting idle in warehouses around the country.

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Why Recycle Electronic Equipment?

Two primary reasons:

- Environmental Compliance
- Privacy

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Environmental Regulations

Electronic Equipment contains materials known to be hazardous and a threat to the environment, including: batteries, lead, mercury, cadmium and other metals.

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Environmental Regulations, con't.

- Proper management of such material is regulated under RCRA (Resource Conservation and Recovery Act).
- Under RCRA, businesses and others are obligated to recognize and properly manage regulated materials.

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What are "hazardous components"?



Variety of batteries removed from standard electronic equipment.

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What might be contained within this unit?

What is so bad about monitors?



Each monitor contains 4 8pound of lead!

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Data Security/Privacy



Data is stored in a variety of places within electronic equipment; hard drives, floppies, CDs, printers, fax machines and more.

How are you protecting this data?



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Freedom checks and sanitizes all components that harbor data



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It is not uncommon to find...



...inadvertently left behind. It is Freedom's policy to notify the client in the event that data of this type is discovered.

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Privacy is mandated by:

- Gramm-Leach-Bliley Act
- HIPAA

Depending on your organization, you may be required by law to ensure that private and sensitive data – yours and *your client's!* -- does not fall into the wrong hands.

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Gartner Research Concludes:

“Enterprises have a fiduciary responsibility to adopt appropriate disk cleansing processes before disposing of PCs.”

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Gartner, Continued

“In addition to financial, environmental and legal implications to consider when disposing of old PCs, equally important are the privacy and data concerns.”

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Gartner, Continued

“Shielding the enterprise from risk (vs. capturing economic opportunity) must drive rational data sanitization policies for the disposal of surplus or obsolete IT equipment.”

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The bottom line.
Who is in control of the equipment and
the data contained within it?



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Storing computers

- Real Estate space / per square foot value
- Administrative costs
- Declining value
- Access Control/Security

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Keep in Mind...

Every time you

- move it
- evaluate it/inventory it
- have a meeting about it
- write a report on it

it costs money.

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Keep in mind...

The minute you unplug a piece of equipment, get rid of it. Why?

- You are never going to turn that machine on again.
- It will never be worth more than it is today.
- Sitting idle, it is an invitation for scavenging or theft by employees.
- It is costing you money!

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Options for Computer Disposal

- Resale
- Donation
- Discard (Dumpster)
- Recycle

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Sales Programs

- Costly to administer
- Privacy concerns
- Software licensing issues
- Tech support

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The Law of Unintended Consequences.
Results of a "computers for schools" donation program.



Elementary School in Reston, VA.

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Dumpster Option: Can my organization be fined for improper disposal?

Yes. A Fortune 100 company was fined \$200,000 when a disgruntled employee reported computers were going out with the trash.

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Although the company claimed that they had a compliant disposal program, they could provide no documentation to the regulatory agency to back up their claim.

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With any program, who takes responsibility for your asset tags?



Asset tags are a direct link to your organization and evidence of original ownership

Why worry about an asset tag?



TCO – Total Cost of Ownership

To purchase and maintain a computer on a desktop for three years, the total cost of ownership three years ago was reported to be \$15,000. These costs include desktop installation, software, upgrades, training, helpdesk support, asset management, IT management and other miscellaneous expenses.

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Total Cost of Disposal

- Total cost of proper disposal = \$25.00 or less or *less than 1% of the TCO.*
- Budget ahead, at time of procurement.
- Disposal is an under-rated and unappreciated aspect of proper and controlled asset management.

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Isn't my equipment worth something?

Resale of electronic equipment is at an all-time low and going lower. Realistically, there is very little revenue generated from used electronics or electronic scrap.

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Is a recycling program going to cost me money?

A good program is going to come with a cost. But a good program will also protect you from liability issues and keep your name out of the papers.

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Who else plays a role?

- Environment, Health and Safety officer if your organization has one.
- Finance
- Facilities Management
- Procurement
- Property Management
- IT Management
- IT Security
- Risk Management
- Legal Affairs

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How to Choose a Recycler?

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Liability and Electronics

- Environmental - Improper disposal can lead to fines and possibly Superfund liability down the road.
- Privacy - Sensitive and proprietary info on hard drives and other media including data on thermal transfer on fax/printer cartridges.
- Asset Tags - Equipment origin is traceable.

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Not all electronics recyclers are created equal

Protect yourself and your organization

- Do your due diligence. Ensure your program is meeting appropriate environmental standards.
- Don't select your recycler based on their website alone. Anyone can put up a web-site. What is behind it?
- VISIT your asset management/recycling company to see how they are managing your equipment.
- ASK QUESTIONS!

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Procuring Recycling Services

When writing an RFP for IT management systems, or desktop replacement programs, develop specifications and incorporate your requirements for disposal into contracts to ensure proper handling.

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How is your material handled?

- Are the hard drives scrubbed and how?
- Are Asset Tags removed?
- Are hazardous components such as batteries, mercury switches and capacitors identified, removed, and managed properly?

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How is your material handled? (con't.)

- Is there management system in place?
- Is anything being landfilled or incinerated, and if so, what volume?
- Is your equipment being exported to Pacific Rim countries or Africa?

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Why is exporting "bad"?



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How is your material handled? (con't.)

- Do they have adequate insurance coverage?
- Do they have a written environmental policy?
- Have you checked their credit rating?
- Do they have references?

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Does the recycler offer a resale program?

- Is there a revenue share program?
- What are the revenue share terms?
- Which resale markets are being used? Domestic, foreign or both?
- How are the buyers "qualified"?
- How are the sales tracked?

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Resale Caution!

Stories abound of electronics being resold on E-bay, at computer shows and through other venues with proprietary data still intact. Be sure to audit your recycler's procedures for removing *your data* prior to resale!

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Freedom's Best Practices Approach includes:

- A No Landfill/No Export Environmental policy
- A "beyond compliance" strategy with applicable local, state and federal environmental regulations.
- Glass-to-glass monitor recycling

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(Freedom Best Practices, con't.)

- Haz mat identification, removal and proper management
- Data erasure and asset tag removal
- Revenue sharing sales program
- Turn-key logistics support

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Studies have shown

- Donation programs simply shift the problem to others and are no longer effective
- Redeployment/cascading is often more costly than purchasing new equipment
- Sales programs are costly to administer and can lead to privacy and software licensing issues

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How much to budget?

Approximately \$25.00 per set up.

Which includes:

- Transportation
- Data erasure/destruction
- Asset tag removal
- Compliant recycling of non salables

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A Best Practices approach to e-waste management will:

- Reduce internal staffing costs
- Reduce storage and handling costs
- Put your electronics in the hands of professional service providers
- Protects your data
- May provide return on investment through a managed resale program
- *Protect the environment*

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Questions?

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Thank you for your time today!

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