

# Electronics Stewardship

## *Electronics Recycling: Certification is the Silver Bullet*

IT professionals have become good environmental and privacy stewards during the past 10 years—on paper.

When we founded Redemtech in 1998, customers would often argue for the dumpster as an acceptable disposal strategy. No more.

A decade ago, in more innocent times, few customers were terribly concerned about destroying confidential company data and personal information on surplus computers. That's no longer the case.

And during the run-up to Y2K, virtually no one was worried about exporting e-waste to developing countries, oblivious to the literal poisoning of low-wage workers around the world. With continuing media reports about e-waste export [scams](#), there is growing awareness of this issue.

Fortunately, corporate policy now generally reflects the fundamental tenets of good electronics stewardship, requiring verifiable data destruction, and forbidding the use of landfills and export in lieu of responsible recycling. As anyone who receives RFPs for asset disposition can confirm, the market has spoken.

Why, then, is eBay a bazaar for hard drives containing corporate and personal data? And how is it possible that a majority of e-waste still is being exported to developing countries, according to most estimates?

Blame fraud, a lack of governance and almost no downstream transparency.

In spite of our official intentions, policy objectives go unfulfilled for fundamental shortcomings:

1. Many electronics recycling vendors say one thing and do another.
2. Most corporate clients fail to hold their organizations and vendors accountable for actual results.
3. As a younger sibling to the scrap metal business, which relies on a lack of transparency for its competitive model, the e-waste management industry has rationalized and perpetuated an unacceptable norm for transparency and accountability.

Some of this must change as regulatory requirements become more stringent. Real progress, though, will depend on corporate leadership insisting that their organizations

recognize and pay the full costs of their policies – and get what they pay for.

Financial motives, of course, are at the root of the disconnect between policy and performance:

- Because there is at all times a huge surplus of shipping containers waiting empty in the United States for return to Asia, the cost of shipping 40,000 pounds of e-waste to Hong Kong is less than shipping 50 computers from Los Angeles to San Francisco; and
- Because the lowest-wage countries also have relatively few worker safety and environmental protections, the cost of manual recycling overseas is almost nil, and export brokers are able to pay a few cents per pound for e-waste.

So, in the face of almost universal corporate policies to the contrary, the United States has outsourced the majority of our electronics disposal to the toxic recycling operations of Asia. This is only possible when we turn a blind eye.

Responsible IT professionals should pause to ask themselves if they are guilty of externalizing their costs of stewardship. For example, a 10-pound inkjet printer contains relatively little intrinsic materials value. The ink cartridge may be worth a small amount if sold to a refill vendor; the rest is less than a dollar's worth of plastics, circuit cards, and metal. Subtract from this nominal scrap value the cost of recovery logistics, handling, the physical separation of component materials for recycling, and their subsequent sale—roughly a \$6.00 expense before including any margin for the supply chain—and recycling is clearly a net cost that ought to be recognized as a component of total cost of ownership. Whereas some equipment categories such as desktop computers, servers, and cell phones contain relatively richer commodities, corporate volume by weight is mostly low value e-waste, pulling the aggregate value of the recycling stream under water.

Most companies are accomplished at running competitive bids for recycling contracts, driving costs low, but often with the unintended consequence of ensuring that their recycler MUST export to turn a profit. Some recyclers follow greed as their guide and export everything while claiming to recycle domestically. Regardless, it remains perfectly legal under U.S.

law, with the partial exception of CRTs, to export e-waste to developing countries – even when it is against the law of the receiving jurisdiction.

The only constraints are our conscience, our formal policies, and the penalties the marketplace may exact on a company's brand if their e-waste is discovered contributing to disease and pollution in some rural province of Asia. (If you have any doubts about the impact of e-waste exports, view the short 2documentary.)

Companies wishing to enforce their anti-export policies will quickly discover that their audit capabilities are not adequate to the task. Consider the following:

- A box of plastics from a demanufacturing process may be marketable or worthless, depending on whether the material has been properly sorted, and whether care has been taken to avoid metals contamination. Few auditors will know the difference, and if worthless, it can only be landfilled, incinerated, or exported.
- Electronics often are shredded for materials recovery. Whether the resulting material can be properly separated for sale as commodities depends on how well the shredder is maintained, its internal operating temperature, the mix of materials shredded together, and a host of other factors to which even a skilled environmental auditor will be blind.
- So called "mass balance" accounting is impossible in most situations, although some auditors cling to that approach. And a road trip to check the downstream supply chain is wasted without valid mass balance accounting and stringent chain-of-custody controls in place—and they never are.

One obvious answer to such a challenge might be to collapse the existing supply chain into vertically integrated companies where all e-waste recycling happens under one roof. No such company exists today, perhaps for good reason. Such an operation would necessarily be large, increasing the costs and the carbon footprint of the process by expanding the collection area sufficiently to meet threshold volumes.

Instead, the more sustainable approach is to address the root cause of the problem, which is the industry's lack of accountability. Redemtech therefore supports the development of independent e-waste auditing and certification bodies with the specialized expertise needed to validate a recycler's claims of performance, and to certify recyclers to an operating standard.

To that end, we have provided financial and technical support to assist the Basel Action Network's (BAN) development of the e-Steward Initiative, which will be the world's most comprehensive and stringent standard for IT asset recovery and recycling. E-Stewards will be certified based on their process capabilities, the quality of their commodities recovery process, worker safety, and their control over the downstream supply chain. The e-Steward standard also includes provisions for reporting, reuse, and data



security. Companies with policies forbidding the export or landfilling of e-waste can use e-Steward Certification as a key component of rigorous governance. The certification will be available early in 2010.

In the meantime, companies that are serious about responsibly recycling e-waste should review their budgets to ensure that they have made adequate provisions for the costs of recycling. Asset disposition programs may include revenue from the resale of working items and parts, but organizations should insist on details from the recycling component separately ensure that appropriate compensation is provided for the costs that a responsible recycler must bear.

Additional key steps include:

- Communicate with senior management to ensure that they understand the costs and benefits of complying with corporate policy.
- Ask your recycler if it has applied to BAN for certification under the e-Steward's program.
- Check your recycler's financial condition to ensure that it is sufficiently profitable to be sustainable; there is a material ongoing cost to becoming certified.

Finally, even after certification, it's a great idea to drop in unannounced on your recycler from time to time. Nothing keeps a vendor on its toes better than a surprise visit from the customer.

Certification is the silver bullet that will bring law and order to what is currently the Wild West of e-waste recycling. By working with certified e-waste recyclers, companies can ensure that the good intentions embodied in their policies make a difference in protecting the environment and the health of communities around the world.

1<http://www.itnewsonline.com/news/BAN-Uncovers-EarthECycles-Fake-Recycling-Events-in-Pittsburgh/14065/8/3>  
2[http://www.redemtech.com/esteward\\_video.aspx](http://www.redemtech.com/esteward_video.aspx)

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