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COLLECTION SITE BEST PRACTICES

WHAT IS ERCC?



A membership organization:

- ✘ Launched in 2010 by National Center for Electronics Recycling (NCER) & Northeast Recycling Council (NERC)
- ✘ Forum for coordination & info exchange on state electronics recycling laws
- ✘ Voting and Affiliate Members

NERC | Northeast Recycling Council



WHY ERCC?



- ✘ Reduce administrative overlap
- ✘ One-stop shop for information on state laws
- ✘ Coordinate data gathering & information sharing
- ✘ Formalize joint, non-binding, responses on key implementation issues
- ✘ Unique resources that streamline compliance

ERCC RECENT PROJECTS



- ✘ Developed test Website for manufacturer registrations:

www.ecycleregistration.org

- ✘ Joint market share data purchasing
- ✘ Performance measures best practices
- ✘ Collection site best practices

COLLECTOR BEST PRACTICES



WHO ARE COLLECTORS?



- ✘ Many entities: local government sites, non-profit donation centers, retailers, electronics repair stores, others
- ✘ Receive devices from public, sort, & prepare for shipment
- ✘ Number & type vary under state laws

COLLECTOR BEST PRACTICES



Why focus on Collectors?

- ✘ May be sole point of contact for consumers
- ✘ Some reports of diversion of valuable items
 - + Diverted devices may never get to qualified, certified recyclers
 - + Diversion raises costs (less valuable items left), distorts true collection rates, & could lead to environmental harm
- ✘ State laws vary on collector requirements

COLLECTOR BEST PRACTICES



Solution?

- ✘ *Best Management Practices* baseline for collectors
- ✘ *Best Management Practices* intended for collection sites accepting electronics from covered entities under state electronics recycling laws
- ✘ May also be used by collection sites outside of state programs

COLLECTOR BEST PRACTICES



Collector Definition:

- ✘ Entity offering site for receiving &/or consolidating electronics prior to sending to recyclers or consolidators.
- ✘ A collector is *not* involved in the disassembly, demanufacture, or recycling of electronics.
 - + However, some consolidators, transporters, & recyclers may also offer collection sites.
 - + Activities beyond collection beyond scope of this effort

COLLECTOR BEST PRACTICES



Best Management Practice Standards



COLLECTOR BEST PRACTICES



Key Areas Addressed by Guidance

- ✘ Compliance
- ✘ Disposal
- ✘ On-site practices
- ✘ Data & reporting
- ✘ Downstream

COLLECTOR BEST PRACTICES



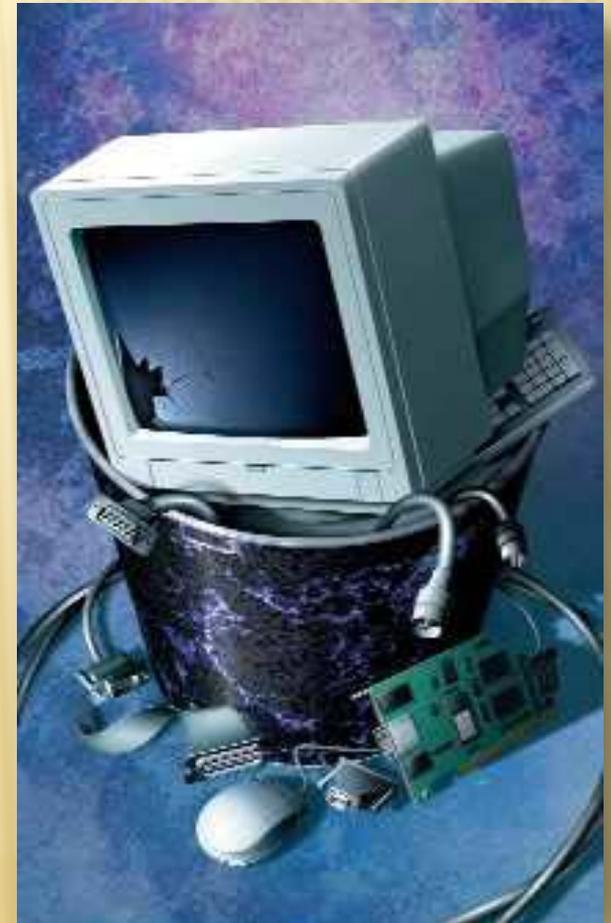
Compliance

- ✘ Comply with all legal requirements—*not* limited to environmental, health, & safety requirements.
- ✘ Be willing to disclose fines & notices of violation to upstream/downstream partners.

COLLECTOR BEST PRACTICES

Disposal

- ✘ No landfilling or incineration of whole electronics—both covered & non-covered items.



COLLECTOR BEST PRACTICES



On-site Practices

- ✘ Staff the site during operating hours.
- ✘ Provide enclosed storage.
- ✘ Handle & store electronics to minimize breakage
- ✘ Adhere to good housekeeping standards.



COLLECTOR BEST PRACTICES

On-site Practices

- ✘ Label storage containers
- ✘ Label containers with predominant device type
- ✘ Train employees on proper handling & emergency procedures
- ✘ Ship all items collected in original form & without missing components
 - + Do not disassemble, dismantle, shred, transform, or demanufacture electronics.
- ✘ Ensure safe stacking & packaging practices



COLLECTOR BEST PRACTICES

On-site Practices

✘ *Computers & Laptops*



Pallets:

- Place computer towers & laptops on pallets
- Shrink-wrap stack (height of 5-7')
- Protect laptops with separate cardboard boxes, & put with computers
- Use enough shrink wrap to ensure will not topple over

Gaylords:

- Place units carefully, stacking efficiently
- Reinforce with shrink-wrap as needed
- Must be placed on pallets

COLLECTOR BEST PRACTICES

On-site Practices

✘ *Monitors*

- Place with screen facing down on pallets with cardboard between layers
- Largest units on bottom & to outside edges of pallet, & interlock units as possible
- Keep flat screen units upright, with screen facing inward
- Apply enough shrink wrap to ensure will not topple over
- Use caution when lowering units into a Gaylord
- Gaylords must be placed on pallets



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On-site Practices

✘ *Television Sets*



- Palletize uniform sized TV's together, with screens facing down on pallets with cardboard between layers
- Place flat screen units upright, with screen facing inward
- Place console televisions on lowest level of pallet with other units on top or around
- Use enough shrink wrap to secure units & prevent toppling

COLLECTOR BEST PRACTICES



Data & Reporting

- ✘ Document period of accumulation.
 - + Up to three years
- ✘ Maintain bills of lading & documentation with # of containers delivered & approximate weight of each shipment.
- ✘ If reuse, document # of units/weight diverted.

BILL TO: 0283909 Oregon SCP National Center for Electronics Recycling 115 Rosemar Rd, Suite 1 Parkersburg, WV 26104

SHIP FROM: 3rd Party Collector SCP Collector #: 131 Waste-Pro Transfer Station 541-963-5459

Bill of Lading Bill of Lading #: SCP1612 Date: 8/4/2010
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SHIP TO: 0283910 SCP Recycler #:129 IMS Electronics Recycling, Inc. 360-750-8883
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COLLECTOR BEST PRACTICES



Downstream

- ✘ Only send electronics to R2 or e-Steward certified recyclers
- ✘ Send all electronics to certified recycler or authorized consolidator *without diverting* any quantities or types of electronics to other vendors, brokers, recyclers, or other entities



COLLECTOR BEST PRACTICES



How can best practices & strategies developed by the Electronics Recycling Coordination Clearinghouse be incorporated into e-scrap collection programs?



COLLECTOR BEST PRACTICES

Suggestions for Implementation:

- ✘ Self-declaration from collector
 - + Need to be combined with another option
- ✘ Pledge or written declaration?
 - + No audit process for either of these
 - + Perhaps a good first step
- ✘ Need database to store info on declared collectors



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Options for Implementation:

✘ Recycler Verification

- + Recyclers would verify that collectors they are receiving materials from use best practices
- + Not true third party verification/audit
- + Some recyclers have little direct contact with collectors – i.e. 3rd party transport used

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Options for Implementation:

- ✘ **Manufacturer commitment**
 - + **Manufacturer would agree to only use collectors who follow these guidelines**



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Options for Implementation:

- ✘ “Standard” or certification program
 - + Viable for all collectors, even small ones?
 - + Consistency with other state permits?



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Options for Implementation:

- ✘ State legislative revisions
- ✘ Some states already building into regulations/guidance

THE SENATE
TWENTY-FOURTH LEGISLATURE, 2008
STATE OF HAWAII

S.B. NO. 2843
S.D. 2
H.D. 3
C.D. 1

A BILL FOR AN ACT

RELATING TO ELECTRONIC DEVICE RECYCLING.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Available estimates suggest that over
2 100,000,000 computers, monitors, and televisions become obsolete
3 each year, and this number is growing. If improperly managed,
4 these used electronics can harm the environment and human

COLLECTOR BEST PRACTICES



Thank you!

Lynn Rubinstein • lynn@nerc.org

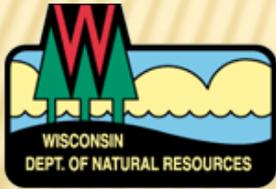
Jason Linnell • jlinnell@electronicsrecycling.org

View Collector Best Practices Document at:

www.ecycleclearinghouse.org

ADDITIONAL ERCC DETAILS

FOUNDING MEMBERS



2011-12 ERCC MEMBERS



STATE (VOTING) MEMBERS:

- × CalRecycle
- × Connecticut DEEP
- × Hawaii DOH
- × Illinois EPA
- × Indiana DEM
- × Maine DEP
- × Maryland DE
- × Minnesota PCA
- × New Jersey DEP
- × New York DEC
- × North Carolina DENR
- × Oregon DEQ
- × Pennsylvania DEP
- × South Carolina DHEC
- × Vermont DEC
- × Wisconsin DNR

2011-12 ERCC MEMBERS



AFFILIATE MEMBERS:

- × Arrow-Intechra
- × Best Buy
- × Brother International
- × Consumer Electronics Association
- × Dell
- × ecoATM
- × ECS Refining
- × Electronic Recyclers International
- × Funai
- × IMS Electronics Association
- × Orion America, Inc.
- × PA Recycling Markets Center
- × R2 Solutions
- × Rhode Island Resource Recovery Corporation
- × Samsung
- × Sims Recycling Solutions
- × Technology Conservation Group
- × Waste Management Recycle America
- × WeRecycle! LLC