

E-Waste Management Standards

May 20, 2009

Department of Toxic Substances Control
Department of General Services
Integrated Waste Management Board



Introductions

- Dan McDonough, DGS
 - Office of Fleet and Asset Management
- 25 plus years experience in materials management
- Management responsibility for the statewide Surplus Property Programs
 - State and Federal Surplus Property Programs

Introductions

Debra Kustic – CIWMB

- 17 years at the California Integrated Waste Management Board
- Currently in Local Assistance and Market Development Division
- Lead contact for State agency waste management

Introductions

André Algazi – DTSC

- Helped adopt California's first Universal Waste Regulations
- Key in implementing SB 50
- Head of Consumer Products Section, which:
 - Handles e-waste notifications, reports
 - Responsible for education and outreach to the regulated community



Background – Why We're Here

- November 2008: The Bureau of State Audits (BSA) published a report stating that several State agencies have improperly managed their e-waste

Background – Why We're Here

- The BSA asked DTSC, DGS, and CIWMB to work together to communicate to state agencies the proper methods of handling and disposing of e-waste properly





What We'll Cover Today

- A. How to Manage Surplus Property
- B. How to Determine if Surplus Property is E-Waste
- C. Rules for Managing E-Waste

A. How to Manage Surplus Property

State Administrative Manual

- DGS will amend the State Administrative Manual (SAM) section 3520.9 to add language that requires the recycling or disposal of e-waste in accordance with applicable laws, regulations, and policies
- Accordingly, a Management Memo will be distributed announcing the revision

Master Services Agreement (MSA)

- This Master Services Agreement (MSA) is designed to provide e-waste recycling collection services and recycling kits
 - This MSA is designed to process e-waste, Cathode Ray Tubes (CRTs), fluorescent light tubes, and batteries (definitions are included in the MSA)
 - To utilize this MSA, state agencies must first receive approval for discarding their Universal Waste from the DGS's State Property Reuse program (via the STD 152 form process).
 - Any local government agency may utilize this MSA if this MSA is acceptable for its purchasing efforts

MSA Liaison

Bonnie Bahnsen

Procurement Division

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Property Survey Report

- **RESPONSIBILITIES** of employees who are managing equipment and personal property for which the organization no longer has a use:
 - Submit online a completed Property Survey Report (**Form STD. 152**) for approval by the Department of General Services. Sign on at <http://www.applications.csps.dgs.ca.gov/agencylogin.asp>
 - Refer to the State Administrative Manual (SAM), specifically Section 3520, for procedures on how to dispose of surplus property

Disposition Choices

- There are ten disposition codes/choices for employees responsible for managing equipment and personal property for which the organization no longer has a use
 - The first nine codes: a brief review
 - NEW Code #10 is for universal waste and **has been revised** to include e-waste recycling on the Property Survey Report

Assessing What You Have: Is It a Waste or Not?

OPTIONS for employees who are responsible for managing equipment and personal property for which the organization no longer has a use:

1. *Donation or sale* for reuse
2. *Recycling* of all or part of the equipment
3. *Delivery* of reusable assets to DGS
4. *Trade-in* for new equipment
5. *Transfer* to another state agency
6. *Recovery* of valuable materials from the used equipment, or
7. *Disposal* of waste materials

Is It a Waste or Not?

- The key word when dealing with State-owned surplus property is REUSE.
 - If the electronics are not reusable, then they **MUST** be recycled
- If the electronics are broken and in pieces, obsolete and of no value – this is not trash but a *recyclable material*
- The MSA offers statewide contractors that provide e-waste services



Who Do You Send Your E-Waste?

As of May 2009, the following companies have contracts with the State to accept e-waste:

- [AERC.com](#)
- [Battery Solutions, Inc.](#)
- [California Electronic Asset Recovery \(CEAR\)](#)
- [Direct Computer Disposal](#)
- [Electronic Recyclers](#)
- [E-Recycling of California, Inc.](#)
- [HMR USA, Inc.](#)
- [M-Cubed, LLC](#)
- [Omega Pacific Electrical Supply, Inc.](#)

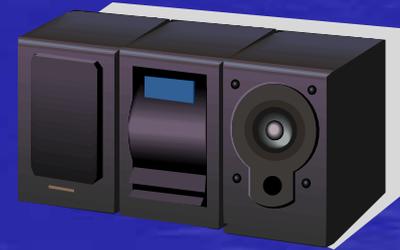
Arranging for Contractor Pick-up of Your E-Waste

- Go to <http://www.pd.dgs.ca.gov/masters/E-Waste.htm> for more information (including location and type of wastes accepted) and to view the contracts

Preparing Items to Send

- Remove *State Tags* from electronic equipment and remove data from hard drives before transferring electronic equipment or trading it in to a vendor, sending it to a recycler, or donating to a public school or public school district
- Deactivate cell phones before transferring to DGS or a third party (which includes trade-in)

B. How to Determine if Surplus Property Is E-Waste





Some Examples of Electronic Devices

- Computers
- Computer peripherals
- Telephones
- Answering machines
- Radios
- Stereo equipment
- Tape players/recorders
- Phonographs
- Video cassette players and recorders
- Compact disc players and recorders, calculators
- Some small appliances (a “major appliance” is not considered an ED for regulatory purposes)

Electronic Devices

- DTSC's regulations apply to a device that is a hazardous waste because it exhibits the characteristic of toxicity:
 - Lead, mercury, copper, cadmium, zinc, and other heavy metals are the most common culprits
 - State regulations require the generator to determine whether an unwanted electronic device is hazardous waste



Electronic Devices vs. Electrical Equipment

Electronic Devices:

- Programmable devices contain electronic circuitry, such as printed circuit boards, that provide a variety of functions.

Electrical Equipment:

- Can usually be switch on and off, but generally cannot perform other functions. For example, non-programmable toasters and coffee makers as well as large metal microwaves would be considered electrical equipment

What if I Don't Know if It's E-Waste?

- Call 916-324-3159 or 1-800-72-TOXIC, or email electronicwaste@dtsc.ca.gov

E-Waste Management Standards



C. Rules for Managing E-Waste

Universal Waste Regulations: Title 22, CCR Chapter 23

- Provides a relatively relaxed set of rules
- Universal wastes may not be disposed of in the trash
- Standards were developed to encourage proper disposal through recycling.
- See the July 2008 DTSC Fact Sheet at <http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/index.cfm> for more info on how to manage these items

Universal Waste Regulations

22 CCR Chapter 23

- Seven categories of universal waste:
 - Batteries
 - Mercury containing equipment
 - Lamps
 - Aerosol cans
 - Electronic Devices
 - Cathode Ray Tubes (CRTs)
 - CRT glass
- Electronic devices, CRTs and CRT glass are considered E-Waste and handlers of e-waste have more requirements than handlers of other types of universal waste.



EPA ID Number

- Any state agency that accumulates more than 5,000 kg of universal waste (including e-waste), at any location, at any one time will need to obtain a State or federal EPA ID# for each location.





EPA ID Number

- What type of EPA ID# will your agency need?
 - If you exceed 5,000 kg of **federally regulated** universal waste (batteries, lamps, MCE), you must obtain a federal EPA ID# from U.S. EPA
 - Go to <http://www.epa.gov/region09/waste/epanums.html> for easy instructions on how to get a federal EPA ID#



EPA ID Number

- If you stay below the listed threshold of federally regulated UW and accumulate more than 5,000 kg of electronic devices (which *includes* CRTs), you can get by with a California EPA ID# issued by DTSC
- The form and instructions are located at http://www.dtsc.ca.gov/HazardousWaste/upload/GISS_FORM_1358.pdf



Annual Report

- If your agency generates 5,000 kilograms or more of e-waste (including CRTs) in a *calendar year*, you must, by **February 1** of the following year, submit to DTSC an annual report that describes the type and quantity of e-waste generated



Annual Report

Basic required information includes:

- State agency name
- EPA ID number, if you have one
- Name of agency contact responsible for e-waste management activities
- Agency contact telephone number, address, and e-mail address



Annual Report

More detailed required information includes:

- The *types* of electronic devices, CRTs, and CRT glass (e-waste) handled;
- The *quantities* of e-waste handled;
- The name, address, and telephone number for each location (contractor) your agency shipped to; and
- The types and quantities of e-waste your agency *generated*, but hasn't *shipped* yet

Annual Report

- File your annual report at <http://www.dtsc.ca.gov/database/UWED/index.cfm> (next one due: 2/1/10)
- Annual report requirements are listed in detail in California Code of Regulations, Title 22, §66273.32(d)

Management Requirements for Handlers of Electronic Devices

- Prevent breakage, properly contain
- Properly label or mark the waste, accumulation area, or container
- Accumulate for no more than one year
- Provide personnel training
- Respond to releases
- Ship only to authorized off-site destinations
- Keep track of all shipments sent or received and retain these records



Containment

- Your agency is required to *immediately contain* all releases of universal wastes and of residues from universal wastes to the environment
- You must immediately clean up and place in another container any e-waste (or CRT glass) that is released as a result of breakage, leakage, or damage to a container, and place it in a container(s) **that is structurally sound and compatible with the contents, and lacks evidence of leakage, spillage, or damage**



Labeling Standards

- Label each electronic device, *or container or pallet in or on which e-waste is contained*, with the following phrase: "Universal Waste-Electronic Device(s)"
- Label each CRT, *or a container or pallet in or on which the CRTs are contained*, with the following phrase: "Universal Waste-CRT(s)"
- **In the event that you have some broken CRT glass** (e.g., cleaned up from an accident within the building) label the container of CRT glass with the following phrase: "Universal Waste-CRT glass"

However ...



Labeling Standards

- *In lieu* of labeling individual electronic devices, CRTs, and/or containers of CRT glass, you may combine, package, and accumulate those items in appropriate containers **within a designated area demarcated by boundaries** that are clearly labeled with the applicable portion(s) of the following phrase: “Universal Waste-Electronic Device(s)/Universal Waste-CRT(s)/Universal Waste-CRT Glass”
- Labeling requirements are listed in detail in California Code of Regulations, Title 22, §66273.34.

Accumulation Time Limits

- Your agency is not allowed to accumulate e-waste for any longer than **one year** from the date the universal waste was generated or was received from another universal waste handler (e.g., another agency)



Accumulation Time Limits

- You must be able to demonstrate the length of time that e-waste is accumulated from the date it became a waste (or was received) by doing the following:
 - (1) Placing the e-waste in a container and marking or labeling the container with the **earliest date** that any of it became a waste or was received;
 - (2) Marking or labeling each e-waste item with the date it became a waste or was received;

Accumulation Time Limits

- (3) Maintaining an inventory system onsite that identifies the date the e-waste became a waste or was received;
- (4) Maintaining an inventory system onsite that identifies the earliest date that any e-waste in a group of e-waste items or containers became a waste or was received;

Accumulation Time Limits

- (5) Placing the e-waste in a specific accumulation area and marking or labeling the area to identify the earliest date it became a waste or was received; or
- (6) Any other method that clearly demonstrates the length of time since the e-waste became a waste or was received
- Accumulation time requirements are listed in detail in California Code of Regulations, Title 22, §66273.35



Personnel Training

- A handler must ensure that anyone who manages e-waste is thoroughly familiar with how to do it properly and how to respond in the event of an emergency, relative to his or her responsibilities.
- This applies to any person who consolidates, sorts, treats, recycles, packages for transport, offers for transport, or physically relocates containers of universal waste.



Personnel Training

- You as the universal waste handler (not DTSC, DGS, or CIWMB) are responsible for initially training and providing annually, thereafter, training to all personnel who manage (or supervise those who manage) e-waste.



Personnel Training

Training materials may be in the form of any **written** media (e.g., brochures, electronic mail, company letters, pamphlets, posters, etc.) and shall include the date of that material. This training must include, at a minimum:

- The **types and hazards** associated with the e-waste managed
- The **proper disposition** of e-waste
- The **proper procedures for responding to releases of e-wastes** (e.g., spilled CRT glass)



Personnel Training

- The State agency must maintain a written record by date indicating the *names of personnel* who received the training
 - The agency should maintain these training records for at least **three years** from the date the person last managed any e-waste at the facility
- Training requirements are listed in detail in California Code of Regulations, Title 22, §66273.36



Response to Releases

- You will be responsible for determining whether any material resulting from such a release is a **hazardous waste**, and if so, shall manage the hazardous waste in compliance with all applicable requirements of the regulations
- Release containment requirements are listed in detail in California Code of Regulations, Title 22, §§ 66273.33.5 and 66273.37

Offsite Shipments

- As a universal waste handler, you may send or take universal waste only to 1) another universal waste handler, 2) a UW destination facility, or 3) a foreign destination (additional requirements apply to exports).
- Follow the instructions in the SAM, keeping in mind that:
 - Prior to sending a shipment of e-waste, you have ensured that the contractor agrees (e.g., via verbal or written communication) to receive the shipment
 - If the shipment is for some reason rejected, refer to the contract in place with that facility

Offsite Shipments

- Offsite shipment requirements are listed in detail in California Code of Regulations, Title 22, §66273.38



Records of Outgoing Shipments

- Your agency is required to keep a record of each shipment of e-waste sent to a contractor. The record may take the form of a *log, invoice, manifest, bill of lading or other shipping document*, and must include the following:
 1. The name and address of the contractor
 2. The quantity (count or weight) of each type of waste sent (e.g., electronic devices, CRTs, CRT glass);
 3. The date of departure of the e-waste shipment



Maintaining Records of Outgoing Shipments

- Your agency must retain each record for at least **three years** from the date of departure of the corresponding shipment of the e-waste
- Shipment tracking/recordkeeping requirements are listed in detail in California Code of Regulations, Title 22, §66273.38

Non-“Treatment” Removal Activities a State Agency Can Do

- Activities described in the device’s owner’s manual
- These are activities that consumers normally do when *maintaining* their devices:
 - Removing batteries, toners, etc.

Activities considered “treatment” trigger additional requirements

- Cutting cords off a device is considered *treatment*
- Taking apart a CPU with a screwdriver to salvage parts is considered *treatment*
- Any other variety of activities that involve disassembling or dismantling an electronic device



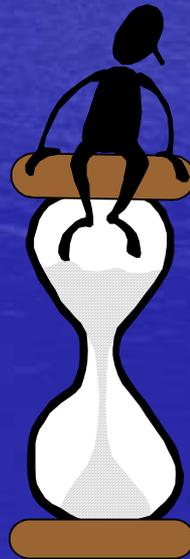
Can My Agency Be Inspected?

- As e-waste generators, you fall under the regulatory jurisdiction of the local Certified Unified Program Agency (CUPA)
- For most Sacramento-area agencies, this would be the Sacramento County CUPA
- The CUPA is separate from the State and sets its own inspection scheduling criteria



Help Us Help You

- Call 916-324-3159 or 1-800-72-TOXIC, or email electronicwaste@dtsc.ca.gov



Questions?





Thank you!