

# Mini-Workshop for Universal Waste Handlers

## **NEW Regulations Chapter 23 and Finalized Alternative Management Standards for Universal Waste Electronic Devices**

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April 20, 23, May 7 and June 9, 2009

**An introduction of who we are  
and why we are here today ...**

# What Are Our Objectives Today?

**Some common terminology changes ...**

**Say goodbye to:** UWED, processors, A-D processors, CRT materials, employee training

**Say hello to:** treatment, electronic devices, closure plan, universal waste treatment unit, scrap metal, residual printed circuit board

**Summary of changes** — summary table, “significant” changes

**Resource documents**

# Basic Tool Kit

Tools you'll need for knowing all you need to know about these regulations:

Regulation Text (various forms)

Initial Statement of Reasons (**ISOR**)

Final Statement of Reasons (**FSOR**)

Response to Comments (**RTC**)

**Primary:** Inspection checklists, DTSC guidance/FSs,

**Ancillary:** RCRA online, federal UW regulations,  
Federal Registers

**New and improved ...**

# **The Final E-Waste Regulations**

# Final (yes, final) UW Regulations

- Permanent regulations took effect on February 4, 2009
- They consolidate several emergency regulations adopted over the past 4 or 5 years:
  - The list of covered devices (“Appendix X”)
  - The treatment and recycling rules for e-waste
  - Restrictions on heavy metals in covered devices sold in California (a.k.a., “RoHS”)

# Say goodbye to...

- **UWEDs = Universal Waste Electronic Devices**
  - Now they're just **Electronic Devices**
- **CRT Materials**
  - CRTs and CRT Glass are separate categories of Universal Waste
- **CRT Device**
  - CRT Devices are now included in the definition of "Electronic Device"

# Say goodbye to ...

- **Small and Large Quantity UW Handlers and CRT Material Handlers**
  - Now they're just **Universal Waste Handlers**
- **A-D Processors**
  - Now they are UW Handlers Who Treat
- **Employee Training**
  - Now it's **Personnel Training**

**What else is new?**

# Changes to UW Categories

- **Single category “mercury-containing equipment” – consistent with term used in federal UW rule (66273.4)**
- **Electronic Devices clarifies “major appliance” subset (66273.9)**
- **CRTs and CRT glass are separate UW categories (66273.6 and 66273.7)**

# Basic Restructuring of Chapter 23

- Consolidate and adopt “UW handler standards”
- Article 3: UW **Handler** Standards
- Article 7: Authorization Requirements for UW Handlers Who **Treat** UW

# Notification

## 66273.32(a) and (b)

### Notification of UW management activities

U.S. EPA — before accumulating 5,000 kg UW (that are RCRA UW) notify U.S. EPA of UW activities

DTSC — any UW handler who might accept and accumulate, but not treat, any ED, CRT, and/or CRT glass from an offsite source; notifications for each location; include facility owner's name if different from UW handler

# ID Numbers

## 66273.32(a) and (b)

### What type of an ID number?

U.S. EPA — before accumulating 5,000 kg UW (that are RCRA UW); part of U.S. EPA notification process

State — if the UW handler was not required to notify U.S. EPA **because the accumulated** 5,000 kg of UWs are all non-RCRA hazardous waste

# What's Changed?

- All "e-waste" handlers (e.g., EDs, CRTs, and CRT glass handlers) who accumulate more than 5,000 kg of these UW at any one time will need to obtain a State "generator" ID number
- Previously, CRTs and UWEDs were not counted toward the 5,000 kg that triggered the requirement to get an ID number

# Who has to notify DTSC?

## 66273.32(b)

- Any location where “e-waste” is generated or accepted from someone else – even if it’s only for a day or a weekend – is a Universal Waste Handler
- The new regulations clarify this requirement
- The regulations require handlers that accept electronic devices from off-site to notify DTSC 30 days in advance and to submit annual reports

# Annual Reports for Handlers

## 66273.32(d)

Only for ED, CRT, and CRT glass UW handlers

1. Accepts >100 kg (220 lb) EDs, CRTs, and CRT glass from any offsite sources
2. Generates 5,000 kg or more EDs, CRTs, and CRT glass

# Some Electronic Device Management Changes

**66273.3** — CRT devices now part of electronic devices, and includes requirements for claims when an electronic device is not a waste (e.g., museum pieces)

**66273.33.5(b)** — CRT packaging requirements

**66273.33.5/.72/.75** — Immediate cleanup language

**66273.34** — Changes to labeling requirements for containers and areas

# Other Changes for Handlers

- **“Shrink wrap” is replaced with the more precise term “stretch film”**
- **The definition of “hazardous waste” is amended to clarify that the term includes universal waste**
- **Clarifies that universal waste does not have to be included in an SB 14 report**

# Management Requirements for Electronic Devices, CRTs, and CRT glass

## 66273.33.5

- Restructured from existing 66273.33
- No longer contains recycling (treatment) activities
- Containerization and packaging
- Manage in a manner to prevent breakage
- Management requirements for batteries, lamps, mercury-containing equipment still in 66273.33

# Accumulation Time

## 66273.35

- Removes extension for recycling purposes
- Longer accumulation for recycling purposes is deleted => one year is it ...

# Personnel Training

## 66273.36

- **Single training standard for all UW handlers (includes who will be trained, content of training, frequency, and documentation)**
- **Applies to “personnel” and not “employee,” and makes the distinction between training requirements for personnel who “manage” UW and those who only “generate” UW while conducting their work (e.g., office worker)**

# Tracking of Household and CESQUW Drop-Offs — **OPTIONAL**

## 66273.39

- Instead of recording the names and addresses of drop-offs, a handler **may** list “household generator” or “CESQUWG”
- Aggregating quantities from these types of generators is OK, too

**Note:** Detailed source documentation requirements may apply when handling **covered electronic waste (CEW)** destined for entry into California’s CEW recovery and recycling payment system. Please refer to 14 CCR 18660.5 et seq. for more details.

# Export Requirements

## 66273.40

**Consolidate and adopt export requirements that are consistent with new federal rule on exports of CRT, CRT device, and CRT glass**

- The federal CRT rule makes a distinction between CRTs that are exported for reclamation, those that are exported for reuse, and those that are exported for disposal**

# Export Requirements

## 66273.40

This section integrates, as much as possible, the requirements of PRC §42476.5.

These were the demonstrations for proving that CEDs would be:

- Exported for the purposes of recycling or disposal
- Not imported into a country that prohibits that import
- Accompanied by the required U.S. EPA Acknowledgement of Consent (AOC)
- Exported in accordance with applicable U.S. or international law

# Export Requirements

## 66273.40

Exports of any UW *except* EDs, CRTs, and CRT glass are subject to the export requirements of Title 22, Chapter 12 (HW export requirements)

- Time frames: require sixty (60) days notice for all notifications

# Destination Facilities

## 66273.60

- **Conduct some UW activities under chapter 23**
- **Allow certain destination facilities to store/accumulate certain UWs under chapter 23 requirements and only for storage/accumulation prior to certain wastes/treatment activities**
- **Destination facilities = permitted facilities; conditions placed on operations in the facility permit and can reference chapter 23 requirements**

If you are a handler who  
recycles electronic waste ...

# Handlers Who Treat ... **New Article 7**

**66273.70.** Applicability — sets the stage

**66273.71.** Removal Activities — user-removable parts

**66273.72.** Disassembly/Draining — using tools

**66273.73.** Treatment — shredders, grinders, ashing

**66273.74.** Notification, reporting, and record keeping

**66273.75.** Treatment (management) standards, for those who treat under 66273.73

**66273.76.** Closure plans and closure cost estimates

**66273.77.** Closure and release of financial mechanism(s)

# Classification of Treatment Residuals

Treatment of EDs may result in the generation of one or more residuals:

**Universal Waste**

*Example:* fluorescent lamps removed from a fax machine

**Scrap Metal**

*Example:* printed circuit boards

**Non-hazardous waste**

*Example:* plastic frames of devices

**Fully regulated hazardous waste**

*Example:* baghouse dust that exhibits toxicity characteristic

# If a handler treats ...

**66273.72(a)(1) and 66273.73(c)**

**Prohibits** the use or application of chemicals or certain external heat

**Prohibits** the treatment of EDs containing:

**PCBs**

**Medical wastes**

**Radioactive materials**

**Reactive materials**

**Ignitable materials**

## **If a handler treats ...**

### **66273.73(c)(1)(D)**

**Allows thermal assay of sampling, burning and ball-milling of samples of EDs and/or (certain) shredded circuit boards, given specific sample size or amount over a 24-hour period.**

### **66273.75(a)**

**Requires that some HW be removed prior to treatment:**

**Mercury-containing lamps**

**PCBs capacitors**

**Other components containing liquids or gases**

# Residual Printed Circuit Boards

**NEW, new, new** to **66273.71**, **66273.72** and **66273.75**

- Will require that recycler (UW handler) becomes the “generator” of treatment residual and shall classify once removed (HW and/or “scrap metal”)
- Label and containerize as RPCB, as appropriate
- Prevent releases and respond to spills
- Will allow certain treatment if RPCB determined to be “scrap metal” (meets definition and exclusion criteria)

# Residual Printed Circuit Boards

## 66273.73(d)

- Handlers may conduct further treatment of boards that meet the definition and exemption criteria for “scrap metal” without a permit.
- This supports further recycling in California, and was developed in response to comments from treatment facilities, some of which already have HW facility permits.
- This **DOES NOT LET** these treatment facilities bypass requirements for article 7 authorization or any other UW handler requirements.

# Annual Reports for Those Who Treat

## 66273.74

- Required for handlers that treat ED and/or CRTs (and CRT glass)
- Requires inclusion of information regarding scrap metal (including RPCBs) and other wastes (yokes, CRT glass, and other UW) shipped off-site
- Requires keeping records of notification and most recent annual report at the handler's facility
- Notification/annual reports dated, signed, and certified per 66270.11
- Can submit via Web site

# Closure Plans for Treatment Facilities

## 66273.76(a)

- Only required for 66273.73(a)(2) and (b) activities (second category of shredders and CRT/CRT glass treatment)
- Submit **30 days** prior to conducting treatment activities
- **Written plan** to include closure activities and schedules
- Must address **active life of facility** at most expensive closure scenario
- Equipment, structures, soils, HW and UW inventories, and residuals
- Sampling and testing areas to confirm decontamination
- Must modify plan: change in activity, 10% increase in capacity, submit **30 days** prior to expected change/after unexpected change
- Keep copy of closure plan at facility

# Closure Cost Estimates

## 66273.76(b)

- Submit to DTSC with closure plan **30 days** prior to initiating treatment activities
- Submit **30 days after** changes to the closure plan
- Include costs of inventory disposition, equipment decontamination or removal, lab testing, and cost to close UW treatment units and all other items designated in the closure plan
- Based on estimated maximum inventory of wastes and residuals, **except RPCB, or treatment residuals thereof, that are classified as “scrap metal” under article 7**

# Closure Cost Estimates

## 66273.76(b)

- Based in hiring third party to close facility (e.g., DTSC or other)
- Annually adjust for inflation within **60 days** prior to anniversary date of establishment of financial mechanisms (per 66265.143)
- Keep copies of CCE at facility
- Financial responsibility for liability, per 66265.147
- Financial assurance, per 66265.143; this provides establishment of financial mechanism timeline/CCE submittal

# Closure Activities

## 66273.77

- A procedure for closing the facility and for obtaining DTSC's release of its financial mechanism.
- Sample data, submitted by the UW handler, confirming that all units, surfaces, and areas have been decontaminated.
- The submittal shall include a facility plot plan that identifies where the samples were taken.
- A letter from the universal waste handler **self-certifying** closure.
- Mechanism for DTSC response to adequacy of closure and timeline for response.

# How to makes these regulations work for you ...

## Structure of regulatory text can provide clues to where to find information on interpretation: authority and reference citations

66273.40 Exports

NOTE: **Authority** cited: Sections 25141, 25150, 25150.2, 25150.6, 25201, 25214.9, 25219.1 and 58012, Health and Safety Code; and Section 42475, Public Resources Code. **Reference**: Sections 25141, 25150, 25150.2, 25159.5, 25219, 25219.1 and 25219.2, Health and Safety Code; Section 42476.5, Public Resources Code; and 40 CFR Sections 261.39, 261.40, 261.41, and 273.40.

**Authority: Statutes that allow development of reg**

**Reference: Statutes/fed regs that state regs provide specificity/implementation**

# Significant Comments Received

**Scrap metal designations and printed circuit boards treatment options**

**Immediate cleanup interpretation**

**Classification of electronic devices as waste**

**Notification/annual reports for each handler location**

**Packaging materials for CRTs in containers**

**Others comments that were outside the scope of these regulations (changes not proposed)**

# **A few words about collection events ...**

# Who Has to Notify DTSC for Collection Events?

- Any location where electronic waste (**electronic devices, CRTs, and CRT glass**) is generated or accepted from someone else — even if it's only for a day or a weekend — **is a Universal Waste Handler**
- The regulations require handlers that **accept and may accumulate** electronic devices from offsite sources to notify DTSC **30 days in advance**, and to submit annual reports if they accept >100 kg electronic waste
- Notification can be from the host of a collection event, the sponsor, or a contractor who runs it
- Joint notifications (e.g., XYZ Recycler/TV-O-Rama Consumer Electronics) are OK

# **Eight Significant Violations Observed at E-Waste Recyclers**

- 1. Breaking CRT glass without authorization**
- 2. Failure to prevent or contain spills of broken glass or other residuals**
- 3. Failure to provide and document personnel training on handling of CRTs**

# **Eight Significant Violations Observed at E-Waste Recyclers**

4. Failure to provide proper personal protective equipment and to ensure that employees wear it, as specified in their training plan
5. Being unable to demonstrate that designated items are excluded from being universal wastes

# **Eight Significant Violations Observed at E-Waste Recyclers**

6. Failure to properly classify treatment residuals and failure to meet the conditions for excluded recyclable materials
7. Failure to submit required export notifications
8. Failure to submit annual reports

## Take-Home ...

- Taking a little time to review and understand the new regulations will save you time, hassle, and money in the future.
- Check our Web site. Updates – including updated guidance documents and fact sheets – are coming soon.
- We're here to answer your questions ...

# What's next?

- Updated Web site information
- Questions to [Uwaste@dtsc.ca.gov](mailto:Uwaste@dtsc.ca.gov) or [electronicwaste@dtsc.ca.gov](mailto:electronicwaste@dtsc.ca.gov)