

Proposed regulatory
concepts-
Disposition Options for
CRTs and CRT glass

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What will be covered?

- Proposed vs. Current U.W. rules
- New revisions/language
- H.W. generator standards
- Recycling

(Current) Universal waste rules

Treatment methods

- Dismantling (removing yoke)
- Physical treatment (crushing CRT to CRT glass)
 - Physical separation
- /Pinpoint torch (funnel and panel)

(Authorization) Conditions to Treat

- Notification
- Management standards
- “Ensure” recycled

Destination

- Universal waste handler
 - Foreign destination
- Primary/secondary lead smelter
- CRT glass manufacturer



U.W.
- CRT



U.W.
- CRT glass

NOT THE GENERATOR

(New) Proposed rules

Treatment methods

- Dismantling (removing yoke)
- Physical treatment (crushing CRT to CRT glass)
 - Physical separation
 - /Pinpoint torch (funnel and panel)

(Authorization) to Treat

- **Notification** → Dispose/recycle
- **Management standards** → Article 8
- **“Ensure” recycled (or disposed)** → Documentation/Standards



U.W, H.W., excluded/exempt – CRT/CRT glass
CAN BE THE GENERATOR OF H.W.

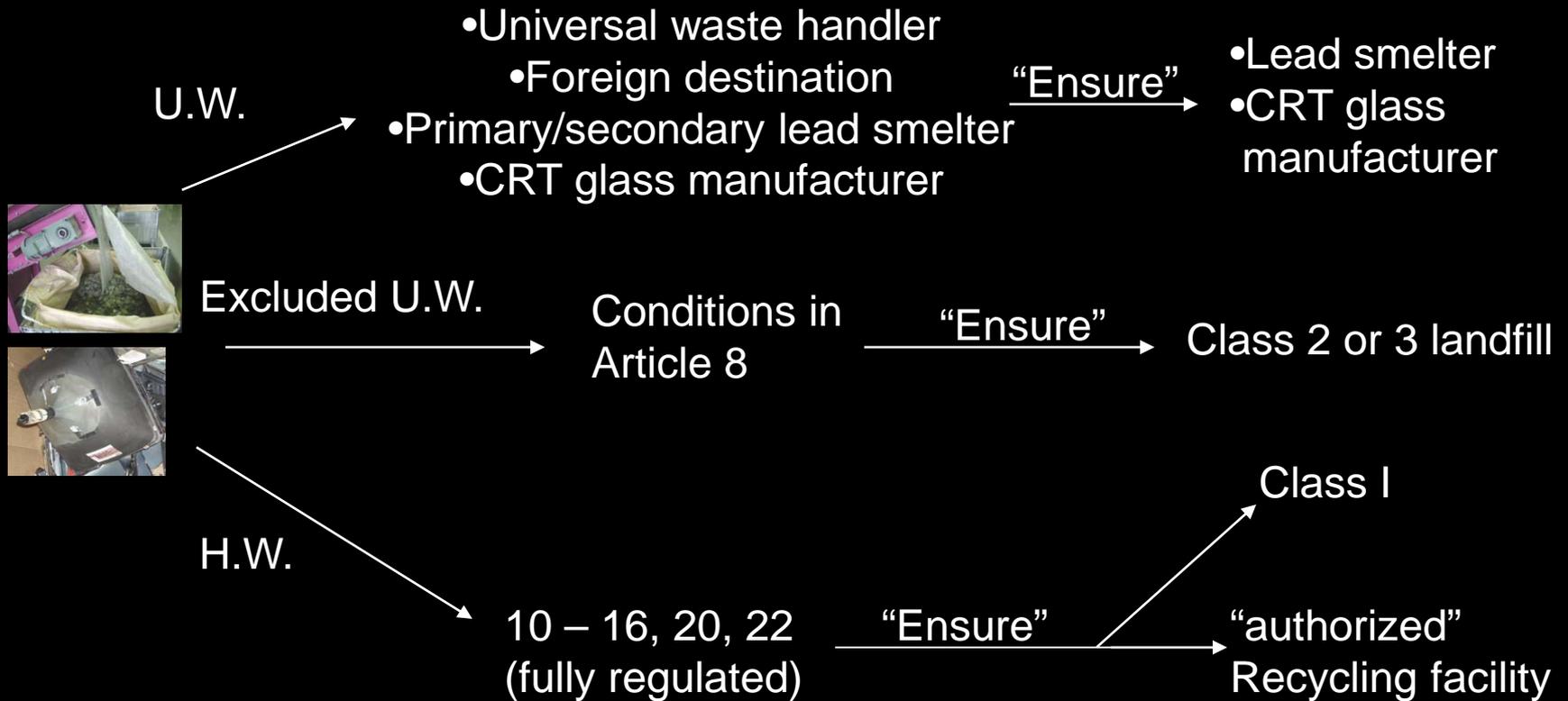
Destination

- Universal waste handler
- Foreign destination
- Primary/secondary lead smelter
- CRT glass manufacturer

- **Other Types of Recycling** → Authorized facility
- **Disposal** → Class 1,2,3



(New) Proposed rules



Smelting or Glass-to-Glass

- Not the generator (of U.W. CRT or CRT glass)
- Must “ensure” using documentation such as:
 - Transporter info
 - Location of the CRT glass manufacturer/lead smelter (intermediate facility)
 - Contractual arrangements with the intermediate facility or facilities
 - The amount of CRT glass shipped
 - Confirmation receipts

Other types of (recycling) or disposal

- Determination = generator (of H.W. CRT/CRT glass)
- A "generator" is any person, by site, ... whose act first causes a hazardous waste to become subject to regulation.
 - No longer a universal waste handler
 - An exception in Article 8 (for disposal)

Waste Classification

■ Example

- Is CRT glass a waste? Yes, (disposal or other types recycling)
- Is CRT glass a H.W.? Yes (1311, STLC and/or TTLC)
- Is there an exclusion? Yes, in Article 8

Article 8 – Excluded (U.W.)

- Conditional Exclusion
 - Testing required for waste classification (as conditions)
 - TCLP (method 1311)
 - STLC
 - TTLC

Article 8

- Management Standards
 - Waste Analysis Plan
 - Labeling
 - Accumulation limit
 - U.W. standards

Article 8

- (Pre) Transportation
 - Universal waste transporter
 - Provide copy to operator (of landfill)
 - Retain a signed copy
 - Tracking shipments:
 - Use Notification
 - Designate facility (Class II or III)

CRT/CRT glass – (destined to Class I or recycling facility)

- H.W. CRT glass destined for disposal (Class I) = fully regulated (no exclusions or exemptions)
 - Demonstration documents
- H.W. CRT destined for other types of recycling = fully regulated, possible exemption or exclusions?

Demonstration (no recycling options are available)

■ Information includes

- The amount of CRTs or CRT glass that is to be disposed
- The amount of CRTs or CRT glass recycled in the previous year.
- The amount of CRTs or CRT glass generated succeeding the previous year.
- Any technological, economic or other reasons for not recycling the CRTs

Generator requirements

- Accumulation
- Labeling/Marking
- Emergency procedures/contingency plan
- Training
- Shipping
- Biennial Reports

Accumulation/Labeling/Marking

- Standards for containers or containment building
 - Written description or document to meet 90 day accumulation limit
 - Air emission, design and operating standards
- Labeling/Marking
 - “Hazardous Waste”
 - Beginning accumulation date

Emergency procedures/contingency plan for hazardous waste generators

- Site must be equipped with specific systems (e.g., internal communication or alarm system)
- Equipment must be tested and maintained
- All personnel must have immediate access to alarm systems, etc.
- Make arrangements with particular services (e.g., hospitals, fire, police)
- Minimize potential for fire/release
- Written plan on site

Training requirements for hazardous waste generators

- Personnel must complete (classroom) training (ensures compliance with reg. requirements)
- Training must be conducted by a person trained in H.W. management
- At minimum, personnel must be trained to respond effectively to emergencies
- Documentation of training must be kept at the facility

Shipping requirements for hazardous waste generators

- Use only registered H.W. transporters
- Follow DOT packaging requirements
- Use California H.W. manifest
 - Complete and sign generator section
 - Retain copies of the manifest (including copy signed by designated facility (3 years))
 - Exception report – if manifest copy not received from designated facility within 30 days

Recycling CRTs or CRT glass

- Current regs allow only CRT Glass manufacturing and primary/secondary lead smelting; originally, these had capacity/demand to recycle a lot of CRT Glass.
- Proposal: allows other recycling options but the recycler is subject to HW generator requirements
- Future: new options could be exempted from HW generator rules; questions:
 - Does the process have capacity for significant quantities?
 - Is a marketable product produced from the recycling?
 - Does the recycling pose significant risks?