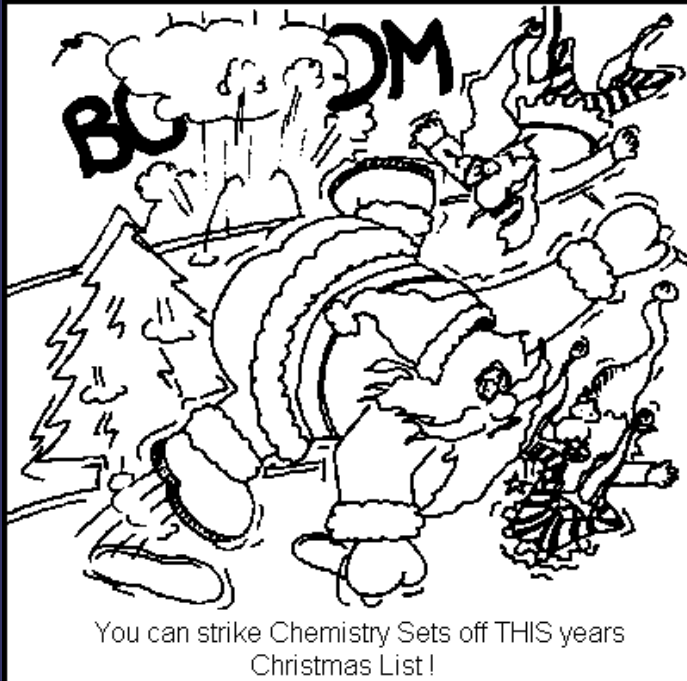


Regulatory Highlights 2006: E-scrap & Air



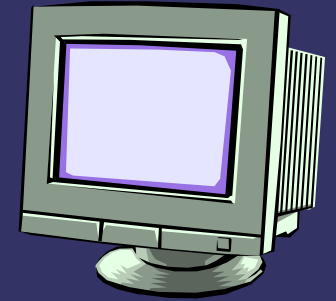
December 2006

The next waste frontier: E-scrap

- According to the US EPA over 250 million computers will be retired in the next 5 years
- New regulations:
 - EPA CRT Rule
 - State Take-Back Programs

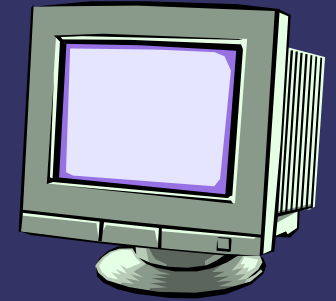


EPA Final CRT Rule



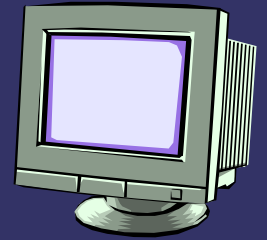
- **40 CFR Parts 9, 260, 261, and 271**
- **Purpose:**
 - Streamline the RCRA rules for managing CRTs which typically fail TC for lead
- **Effective date:**
 - 29 January 2007 (implemented under HSWA)
- **Not Regulated:**
 - Households
 - CESQGs
 - User who sends CRTs to a reseller for *potential* reuse or repair
 - Non-CRT e-scrap (including circuit boards)

CRT Rule – Domestic Recycling Requirements



- **Domestic recycling requirements**
 - Intact CRTs
 - No speculative accumulation
 - Used broken CRTs
 - Conditionally excluded from RCRA requirements if the comply with universal waste-type packaging and labeling requirements for storage and shipment
 - No speculative accumulation

CRT Rule – Domestic Recycling Requirements (cont'd)



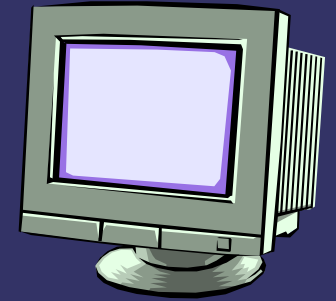
- Glass processors
 - Must store broken CRTs indoors and in accordance with universal waste-type packaging and labeling requirements for storage
 - No speculative accumulation
 - May NOT use temperatures high enough to volatilize lead
- Processed glass
 - Not regulated IF sent to a glass-to-glass manufacturer or a lead smelter
 - No speculative accumulation
- Other kinds of recycling may be excluded from regulation on a case-by-case basis

CRT Rule – Export for Recycling

- **Used CRTs (broken or intact)**
 - Exporter must notify EPA 60 days prior to shipment (can cover up to 12 months of export activities)
 - EPA requests consent from receiving country
 - No export can take place prior to receipt of consent from receiving country
 - No speculative accumulation
 - Broken CRTs must be packaged and labeled in accordance with domestic requirements



CRT Rule – Export for Reuse



- **Exporters must send a one-time notification to EPA or the state with contact information and a statement that the exporter plans to export CRTs for reuse**
- **Must maintain “normal business records” demonstrating CRT reuse for 3 years**

State Take-Back Programs

- **States with active programs**

- Maryland (2004)
- California (2003)
- Maine (2004)
- Washington (2006)

- **States with pending legislation**

- Oklahoma
- Hawaii

- **States Likely to introduce legislation**

- Illinois
- Wisconsin
- Arkansas
- Missouri



States Take-Back Program Statistics (cont'd)

- **States with failed legislative initiatives**
 - Kentucky
 - Hawaii
 - Utah
 - Michigan
 - Minnesota



Equipment Typically Covered

- **Computer Monitors**
- **TVs**
- **Notebook Computers**
- **Desktop Computers**



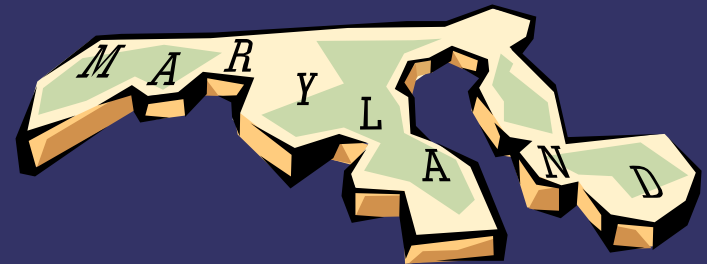
California's Program Highlights

- **Financed by an Advanced Recycling Fee (ARF) of \$6-\$10 paid by consumer at POS**
- **Fees go into State fund used to pay qualified collectors and recyclers**
- **Financial burden to consumer/retailer**



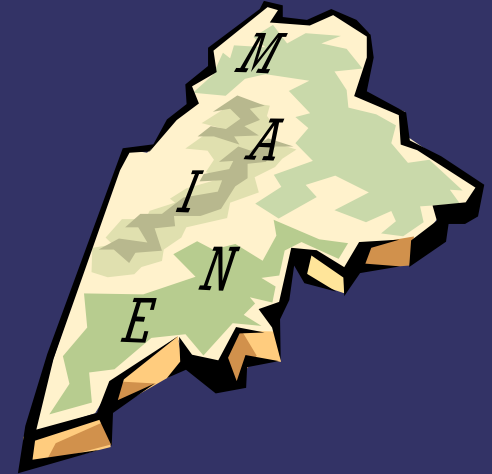
Maryland's Program Highlights

- **Currently in year 3 of a 5 year pilot**
- **Manufacturers must register with the state and pay a \$5000 fee (reduced to \$500 if manufacturer implements a take-back program)**
- **Fees go into the state recycling trust fund and used by local governments to fund collection and recycling programs**
- **No financial burden on consumer or retailer**



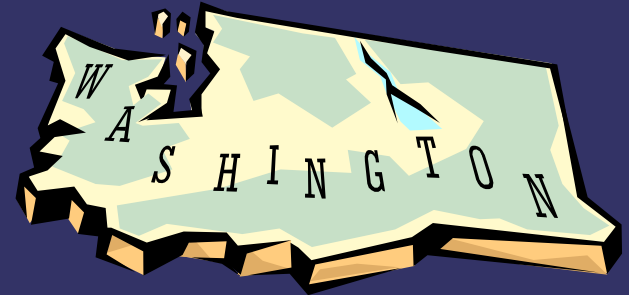
Maine's Program Highlights

- Local governments collect equipment
- Processed by state-approved “consolidators”
- Consolidators count units by manufacturer
- Manufacturer is billed for the number of units collected plus a fee for a percentage of “orphaned” units processed
- No financial burden on consumer or retailer



Washington's Program Highlights

- **Manufacturers bear complete financial responsibility for collection and recycle**
- **Manufacturers can either participate in a mandatory state-created authority or can develop their own independent plan approved by the State**
- **Funding details will be determined by the new state-created authority**
- **Implementation planned for January 2009**



Air: Keeping it Clean

- **New regulations/implementation:**
 - Maintenance Start-up and Shutdown Emissions Authorization
 - Site Remediation MACT



Maintenance Start-up and Shutdown Emissions

- **30 TAC 106 and 116**
- **Planned MSS emissions must be pre-authorized**
- **Now can be authorized:**
 - Under PBR 106.263
 - By being rolled into site air permit
- **Implementation roll out by industry**
 - Semiconductor - January 2013

Site Remediation MACT

- 40 CFR 63 Subpart GGGGG
- The final rule was issued on October 8, 2003
- Compliance deadline October 9, 2006
- The requires major sources of hazardous air pollutants (HAP) to manage air emissions from both long-term (e.g., ground water) and short-term (e.g., spill clean-ups) remediation.
- “cross-over” rule requiring waste staff to understand air regulations



Questions???

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