

Stakeholder Workshop
December 9, 2013

Residual CRT Glass Management and the CEW Recycling Program

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General Announcements

■ **Net Cost Reports**

- *Due on or before March 1, 2014 covering 2013 operations*
- *Do not confuse with annual DTSC universal waste handler reports due on or before February 1..!*
- *Critical that reports use generally accepted accounting principles; consistent allocation methods*
- *Cost information specific to non-CRT device management will be solicited separately*

General Announcements

■ CRT Abandonment in Yuma, AZ

- *Dow Management walked away from facilities in late May / early June*
- *Approximately 9 million pounds of residual CRTs had been shipped to Dow by CA CEW recyclers*
- *CalRecycle and DTSC have been working with ADEQ to ensure proper response*
- *CEW program provided detailed update at September CalRecycle monthly meeting*
- *DTSC continues to issue compliance notices*

General Announcements

- **Previous CEW Stakeholder Workshop**
 - *Held June 12, 2012*
 - *Focused on possible rule changes:*
 - *Residual CRT management*
 - *Designated approved collectors*
 - *Little-to-no improvements in CRT markets since*
 - *Concerns about some CEW recovery operations conducted under designation continue*
 - *Plan to move forward on both fronts, starting with residual CRT management...*

Electronic Waste Recycling Act

- *PRC 42461. The Legislature finds and declares all of the following:*
 - *(a) The purpose of this chapter is to enact a comprehensive and innovative system for the reuse, recycling, and proper and legal disposal of covered electronic devices...*
 - ...
 - *(h)...provide sufficient funding for the safe, cost-free, and convenient collection and recycling of 100 percent of the covered electronic waste initially discarded in the state, to eliminate electronic waste stockpiles and legacy devices by December 31, 2007...*

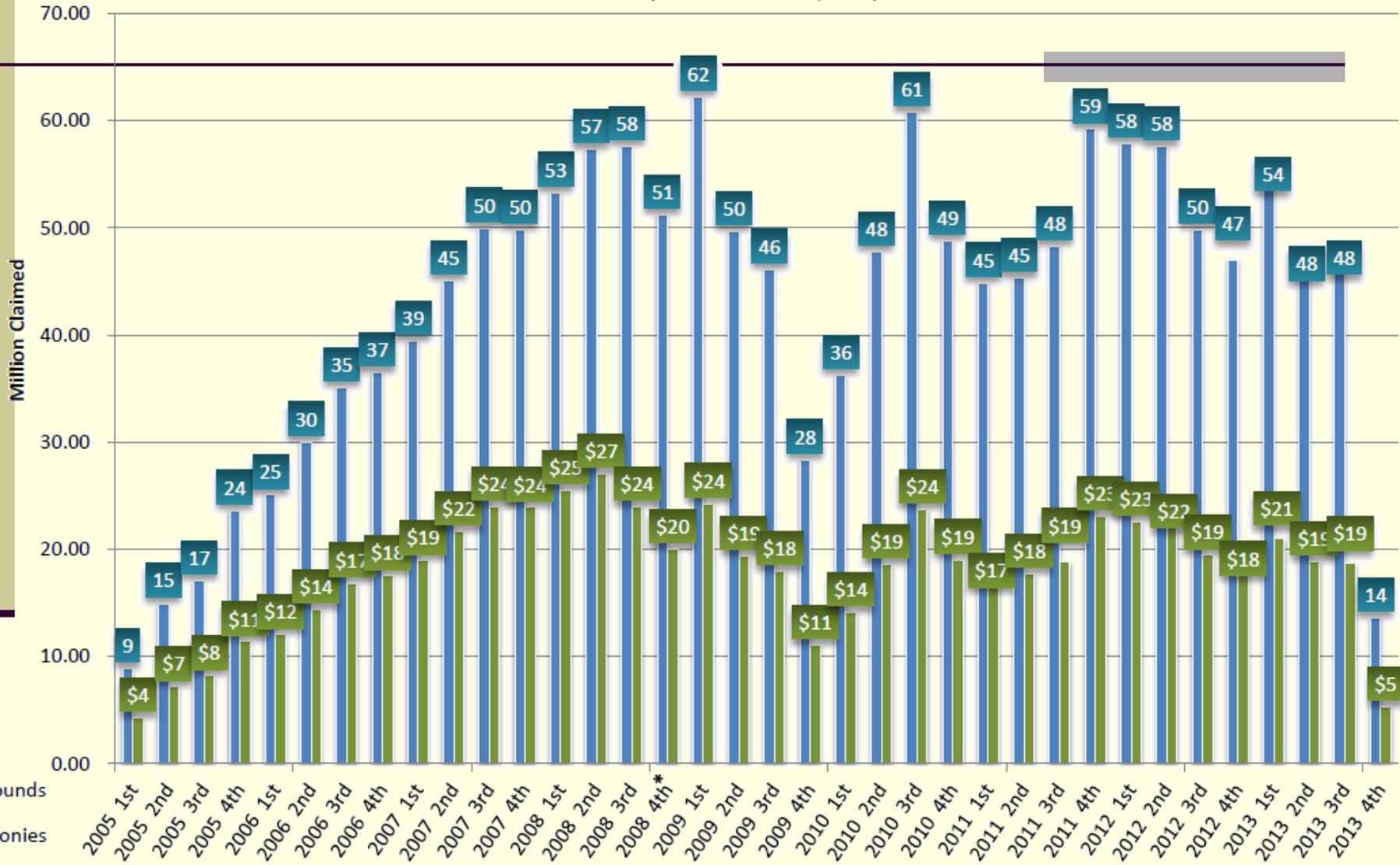
CEW Recycling Program Stats

- **Over 1.5 Billion Pounds of CEW Recycled**
 - Associated infrastructure has recovered similar amounts of miscellaneous discarded electronic devices.
- **~ 98% (by weight) has been CRT Devices**
 - Volume of CRT recovered is slowing.
 - Still an unknown amount of CRT yet to be discarded, but amount is finite.

Covered Electronic Waste Recycling Payment System

Quarterly Monies and Pounds Claimed

(as of December 5, 2013)



* Change in the standard payment rate effective 3rd quarter 2008.

Topics for Today's Workshop

- **Disposition of Residual CRT Glass**

- Current CEW system limitation: “disposition is not disposal to land, water or air...”
- Emergency DTSC regulations and evolving markets prompt reconsideration of options
- Propose to remove limitations in excess of DTSC rules

Managing Residual CRT Glass

- **Currently, before filing a payment claim:**
 - Recycler must ship residual CRT glass to a destination authorized to receive and further treat that material

- **As part of claim:**
 - Recycler must provide “...a discussion of the ultimate disposition of the (CRT glass) shipped demonstrating that the disposition is not disposal to land, water or air...”

Where Has the Glass Gone?

- In mid-2009, nearly 75% of CA CRT glass was directly shipped to processors in Mexico.
- Since January 2010, approximately 75% of CA CRT glass was initially shipped to an domestic (U.S.) destination.
- Since January 2012, as much as 42% of CA CRT glass was initially shipped to a foreign destination.

Where Has the Glass Gone?

- At least five CA recyclers are affiliated with operations that have authorization to “treat” glass; can serve as an intermediate destination.
 - Majority of glass subsequently moved on toward CRT manufacturing (India)
- Minimal amounts of residual CRT glass shipped directly to traditional smelters.

Initial CRT Shipments from CEW Claims

- Since January 2012...
 - Program-wide: 199 million pounds total
 - Out-of-state
 - CLRR 40.9 million
 - Doe Run 0.6 million
 - Dow Management 8.6 million
 - TDA/TDM 73.4 million
 - Videocon/Samtel 9.8 million

Initial CRT Shipments from CEW Claims

- Since January 2012...
 - Program-wide: 199 million pounds total
 - In-state
 - ERI 8.5 million
 - e-Recycling 31.0 million
 - E-World 0.2 million
 - GLS Group 2.7 million
 - PC Recycle 2.2 million
 - Regenesys 20.8 million

DTSC Changes CRT Rules

- DTSC recognized changing market conditions and loopholes in regulation
- Participated in several CalRecycle workshops to outline possible changes
- Enacted emergency rules Oct 15, 2012
- Rules strengthened oversight; established pathways to alternative management

Time to Reconsider Options

- Recovery and recycling of resources should be maximized, if possible and reasonable.
- Not all residual CRT glass is the same, presenting both opportunities and limitations.
- Limited viable large-scale recycling markets exist today. Will they tomorrow?

Time to Reconsider Options

- Realistic and reliable downstream(s) for CRT glass is imperative.
 - CEW recovery system stops working if there is no acceptable outlet for residual CRT glass
- Stockpiling -- in-state or elsewhere -- in hopes of eventual new “markets” is untenable.

Time to Reconsider Options

- Limitations should be removed on ultimate disposition of residual CRT glass beyond compliance with applicable UW / HW rules
 - Allows for continued use of UW options so long as they exist
 - Allows for pursuit of alternative recycling if it can be demonstrated
 - Allows for regulated disposal if recycling is not economically or environmentally feasible

Proposal

- Eliminate fundamental limitation on “...disposal to land, water or air...” for residual CRT glass.
- Ensure that any disposal is compliant with all applicable laws and conforms to the conditions of authorization under which the approved recycler managed the CEW from which the treatment residuals were derived.

Proposal

- Maintain residual CRT (glass) shipping requirements
 - Destination authorized to receive, further treat, and/or dispose
- Require additional documentation as necessary to demonstrate compliance
- Non-compliant residual management results in ineligible CEW recycling claims

Discussion

Next Steps

- Program will revise draft proposed language
 - Identify areas in regulations requiring amendments, edits, or deletions
- Publicize proposal(s) and hold workshop(s)
 - Respond to comments, questions, concerns
- Pursue changes under emergency authority