

REQUEST FOR APPROVAL

To: Carol Mortensen, Director
From: Jeff Hunts, Manager
Request Date: June 15, 2015
Decision Subject: Revised Regulations Governing Residual CRT Glass Disposition
Action By: June 25, 2015

Summary of Request:

This Request for Approval seeks authorization to file proposed emergency regulations with the Office of Administrative Law (OAL) that would revise criteria and conditions relative to the disposition of cathode ray tube (CRT) glass derived from the processing of certain covered electronic waste (CEW). Specifically, the proposed regulatory changes would remove existing prohibitions on the disposal of treatment residual CRT glass and allow for all otherwise legal dispositions. The proposed changes would also improve documentation requirements, and place certain time limits on the ultimate disposition of treatment residual CRT glass. The proposed regulations would be adopted under emergency authority established by Public Resources Code (PRC) section 42475.2 and would be finalized within two years.

Details of Request:

The Electronic Waste Recycling Act of 2003 (PRC § 42460, *et seq*) establishes a funding mechanism to provide convenient collection opportunities, waste processing capabilities, and appropriate residual material disposition for certain electronic products discarded in California. Covered electronic devices (CED) include video display devices with screen sizes greater than four inches that have been determined by the Department of Toxic Substance Control (DTSC) to be hazardous when discarded. See PRC § 42463(e). This includes products such as televisions and computer monitors.

When CED is discarded, it becomes CEW. Approved collectors and approved recyclers may recover, process/recycle, and claim for payment CEW that is documented as having been discarded by a California source. Approved recyclers must also demonstrate that treatment residuals (the component material derived from processing CEW) have been compliantly managed. Current regulation requires approved recyclers to demonstrate that the disposition of residual CRT glass is not disposal to land, air, or water.

In the ten years since the CEW recycling program began operation, markets for residual CRT glass have gone from abundant to scarce. With CRT technology being supplanted by liquid crystal displays (LCD) and light emitting diodes (LED), there is significantly diminished demand for recycled CRT glass to manufacture new CRT devices. The one manufacturer available to the West is located in India, and its capacity and stability as a legitimate market are uncertain. Other proposed markets for CRT glass have proven slow to develop, are limited in capacity, or are complicated relative to California hazardous waste law.

Please refer to Attachment 1 for a detailed overview of CRT issues affecting the CEW program. These issues were presented at a stakeholder workshop on December 9, 2013, and then updated and re-presented at a stakeholder workshop on May 12, 2015.

In October 2012, DTSC adopted emergency regulations that expanded the ultimate disposition options for residual CRT glass. These emergency rules were re-adopted in September 2014. The emergency regulations allow for CRT devices to be handled and dismantled under the universal waste framework, with the ultimate disposition of the CRT glass determining how the final in-state handler would be regulated. The rules maintained traditional universal waste options such as CRT manufacturing and lead smelting, but also created pathways to alternative recycling applications as well as disposal. Additionally, the rules create improved disposition oversight, authorizing DTSC to demand documentation demonstrating that CRT glass shipped out of state has met a compliant disposition.

CalRecycle staff has been continuously monitoring the conditions of global markets and disposition options for CRT glass. Elsewhere in the U.S., abandonments of residual CRTs and/or glass derived from other state-administered electronic waste recycling models have occurred due to limited markets and insufficient funds to properly dispose of the material. The stability, capacity, and longevity of foreign markets are uncertain, raising questions about the legitimacy of shipping regulated materials to far-off locations with limited ability to provide oversight of subsequent handling and disposition. Importantly, the economics of accessing alleged markets are potentially corrupted by the downstream knowledge that the California-approved recycler must ship residual CRT glass somewhere. Essentially monopolistic pricing for vanishingly few options is a burden to California recyclers and a questionable public policy.

Given the need for California recyclers to access expanded options for CRT glass outlets, CalRecycle staff is proposing that the CEW program rules be modified to more closely reflect the full range of ultimate disposition options for CRT glass that is afforded via DTSC's emergency regulations. This would include well-regulated disposal if recycling markets are not economically feasible to employ.

Staff further proposes that CalRecycle exert additional oversight of the ultimate disposition of residual CRT glass derived from the CEW program by limiting the timeframe within which shipped glass reaches an ultimate disposition to one year. This would minimize the occurrence of shipped CRT glass being stored indefinitely in out-of-state locations. A previous proposal to restrict disposal of CRT panel glass derived from claimed CEW in Class 2 or Class 3 disposal units to in-state facilities was found to be duplicative of DTSC's existing emergency universal waste rules for CRT management.

Stakeholder Comments / Staff Response:

A range of perspectives have been expressed over the two-year course of considering this topic in public settings and in written communication. Typically stakeholders favor recycling of residuals if and when markets exist. There is, however, increasing consensus that traditional markets have been fading and anticipated new markets have been slow to materialize. Outright opposition to the prospects of recyclers exercising access to all legal CRT glass disposition options has diminished with the increased understanding of market conditions. Additionally, the proposed placing of limitations on disposition timeliness and disposal locations is generally supported.

One commenter asked about placing a "sunset" on the proposed regulations, presumably to revisit the regulations if market conditions change. Since the regulations will be adopted as emergency regulations, there is a default maximum two-year longevity, requiring CalRecycle to re-analyze the subject prior to finalization or re-adoption.

Another comment suggested that any disposal options, including potential Class 1 disposal of RCRA hazardous leaded or mixed CRT glass, be limited to in-state, along with the previously proposed Class 2 and Class 3 limits for panel glass. It has been determined that adding such a limitation for panel glass is not necessary, as the regulation already requires handling in conformance with all applicable laws. DTSC's universal waste rules for CRT glass would not apply nor exempt these materials from RCRA Sub C in other states.

Comments were also received on the subject of "economic feasibility" relative to whether a recycler must manage residual CRT glass for the purposes of recycling or pursue other options, including disposal. Commenters

suggested incorporating concepts of health and safety, environmental protection, and reasonable access to markets into required recycler decision-making. Staff believe that all of these concepts are embodied in the physical material management rules administered by DTSC (e.g. health, safety, and the environment), as well as market dynamics evaluated on an ongoing basis in the business world that factor into determining “economic feasibility”.

Recommendation:

Based on staff’s understanding of global market options for residual CRT glass derived from the treatment of CRT devices, as well as the challenges of accessing those markets and the uncertainty associated with the ultimate disposition of CRT glass that is sent out of state, revisions to the CEW program rules relating to the disposition of CRT are warranted.

Specifically, staff recommends that:

- CEW recyclers be afforded the option to pursue any otherwise legal disposition for residual CRT glass derived from CEW that is cancelled and claimed for recycling payment.
- CEW recyclers be required to provide enhanced documentation, as necessary and required, that demonstrates the ultimate disposition of residual CRT glass is compliant with applicable law.
- CEW recyclers be able to demonstrate that all shipped CRT glass has been consumed by an ultimate disposition within one year of initial shipment.
- CEW recyclers must ensure and be able to demonstrate compliance with applicable law.

In order to achieve these recommendations, staff has proposed changes to the existing CEW program regulations found in 14 CCR § 18660.5, *et seq.* The proposed changes can be found as Attachments 2 and 3 to this request for approval, providing a summary of changes as well as the full context, respectively. Staff requests approval to proceed with the proposed regulatory changes.

Upon approval of this request, staff will immediately make the necessary filings with the Office of Administrative Law to enact the proposed regulations.

Director Action: On the basis of the information, analysis, and findings in this Request for Approval, I hereby approve the staff recommendation that the regulations governing the covered electronic waste recycling program be revised as describe in the foregoing and the attached and, in doing so, fulfill CalRecycle’s obligations pursuant to PRC § 42475.



Carol Mortensen
Director

28 June 2015

Date Signed

Attachments:

1. Draft Issue Paper: Overview of CRT Issues and the CEW Program
2. Detail of Proposed Regulation Changes in 14 CCR § 18660.5 *et seq*
3. Proposed Regulation Changes in Context of Full Regulations 14 CCR § 18660.5 *et seq*

