TEXT OF PROPOSED REGULATIONS
Photovoltaic (PV) Modules – Universal Waste Management Regulations
Department Reference Number: R-2017-04
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DIVISION 4.5, TITLE 22, CALIFORNIA CODE OF REGULATIONS
CHAPTER 11. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
CHAPTER 23. STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

Legend: Amendments are shown from the existing text of the California Code of Regulations, title 22, as:

Underline  underline  Additions to existing text
Strikeout  strikeout  Deletions to existing text
***  Existing text (not shown) continues unchanged

For the convenience of the reader, existing text is shown as plain text and text deleted from existing text is shown as strikeout (strikeout). Added text is shown as underline (underline).
Amend California Code of Regulations, title 22, division 4.5, chapter 11, article 1, section 66261.9 to read:

§66261.9. Requirements for Universal Waste.

(a) The hazardous wastes listed in this section are exempt from the management requirements of chapter 6.5 of division 20 of the Health and Safety Code and its implementing regulations except as specified in chapter 23 and, therefore, are not fully regulated as hazardous wastes. The wastes listed in this section are subject to regulation pursuant to chapter 23 and shall be known as “universal wastes.”

(1) Batteries, as described in section 66273.2, subsection (a);
(2) Electronic devices, as described in section 66273.3, subsection (a);
(3) Mercury-containing equipment, as described in section 66273.4, Subsection (a);
(4) Lamps, as described in section 66273.5, subsection (a) (including, but not limited to, M003 wastes);
(5) Cathode ray tubes, as described in section 66273.6, subsection (a);
(6) Cathode ray tube glass, as described in section 66273.7, subsection (a); and
(7) Aerosol cans, as specified in Health and Safety Code section 25201.16; and
(8) PV modules, as described in section 66273.7.1, subsection (a).

(b) Unless specified otherwise in section 66273.60, universal wastes shall be managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division upon arrival at a destination facility.

Amend California Code of Regulations, title 22, division 4.5, Table of Contents, chapter 23 to read as follows:

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Chapter 23. Standards for Universal Waste Management

Article 1. General

§ 66273.7.1. Applicability — Photovoltaic Modules (PV Modules)

Article 3. Standards for Universal Waste Handlers

§ 66273.33.5 Universal Waste Management Requirements for Electronic Devices, CRTs, and CRT Glass, and PV Modules.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 1, section 66273.1 to read:

§66273.1. Scope.

(a) This chapter establishes requirements for managing universal wastes, as defined in section 66273.9. The following universal wastes are subject to regulation pursuant to this chapter:

1. Batteries, as described in section 66273.2, subsection (a);
2. Electronic devices, as described in section 66273.3, subsection (a);
3. Mercury-containing equipment, as described in section 66273.4, subsection (a);
4. Lamps, as described in section 66273.5, subsection (a) (including, but not limited to, M003 wastes);
5. Cathode ray tubes, as described in section 66273.6, subsection (a);
6. Cathode ray tube glass, as described in section 66273.7, subsection (a); and
7. Aerosol cans, as specified in Health and Safety Code section 25201.16; and
8. PV modules, as described in section 66273.7.1, subsection (a).

(b) This chapter provides an alternative set of management standards in lieu of regulation as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division. The alternative management standards of articles 1 through 3 of this chapter do not apply to destination facilities, as defined in section 66273.9, except as otherwise specified in section 66273.60, subsections (b) or (c).

NOTE: Authority cited: Sections 25141, 25150, 25150.6, 25201, 25214.9, 25219.1 and 25259.58012, Health and Safety Code; and Section 42475, Public Resources Code.

Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1, and 25219.2, Health and Safety Code; 40 CFR Section 273.1.
Add California Code of Regulations, title 22, division 4.5, chapter 23, article 1, section 66 to read:

§66273.7.1. Applicability — PV Modules.

(a) PV modules covered pursuant to chapter 23.
   (1) The requirements of this article apply to persons managing PV modules, as defined in section 66273.9, except those listed in subsection (b) of this section.
   (2) Discarded PV modules that are hazardous waste because the device exhibits the characteristic of toxicity specified in section 66261.24.

(b) PV modules not covered pursuant to this chapter. The requirements of this chapter do not apply to the following PV modules:
   (1) PV modules that are not yet wastes pursuant to chapter 11 as provided in subsection (c) of this section;
   (2) PV modules that do not exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 and that are not otherwise identified as hazardous waste pursuant to chapter 11 of this division;
   (3) PV modules that are destined for recycling (or are recycled) by being “used in a manner constituting disposal,” as described in section 66266.20, or that are destined for disposal (or are disposed) to a permitted hazardous waste disposal facility. Such PV modules shall be managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;
   (4) PV modules that are managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division; and
   (5) PV modules that were previously identified as waste pursuant to chapter 11, but are no longer identified as a waste (e.g., discarded PV modules that is refurbished and is returned to service).

(c) Generation of waste PV modules.
   (1) A used PV module becomes a waste on the date it is discarded (e.g., when removed from service and the owner does not intend to reinstall it because the PV module no longer functions as designed).
   (2) Unused PV modules.
      (A) An unused PV module that is not a retrograde material becomes a waste on the date it is discarded (e.g., when stored prior to being sent for reclamation);
      (B) An unused PV module that is a retrograde material becomes a waste on the date that it becomes a recyclable material pursuant to subsection (e) of the definition of “recyclable materials” in section 66260.10.

(d) A respondent in an action to enforce regulations implementing this division who claims that a PV module is not a waste bears the burden of demonstrating that there is a known market or disposition for its use as a PV module.

Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 1, section 66273.9 to read:

§ 66273.9. Definitions.

When used in this chapter, the terms listed in this section have the meaning given below. Unless otherwise specified, listed terms that cross-reference the definitions of other terms refer to the definitions set forth in this section for those other terms. Terms that are also defined in chapter 10 of this division are duplicated here solely for convenience of the regulated community. Terms used in this chapter that are not defined in this section but are defined in chapter 10 of this division and/or chapter 6.5 of division 20 of the Health and Safety Code have the meanings given in those sources.

"Photovoltaic Modules (PV modules)"

(a) Means any photovoltaic modules (PV module or PV modules) device that converts photons from the sun into electricity for general use and is identified as a hazardous waste because the module exhibits the characteristic of toxicity as specified in article 3 of chapter 11 of this division. (Examples of PV modules include but are not limited to rooftop PV modules, PV modules systems operated by utility companies, PV modules powered lighting systems, and heating and cooling systems.)

(b) Does not mean:

1. Physically-damaged, fractured or fragmented PV modules that are no longer recognizable as a PV module.
2. Solar-powered electronic devices that have one or more photovoltaic cells incorporated into their structures (e.g., calculators).

Note: Authority cited: Sections 25141, 25141.5, 25150, 25214.6, 25150.6, 25201, 25214.9, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1 and 25219.2, Health and Safety Code; 40 CFR Sections 261.4, 261.5 and 273.9.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 3, section 66273.32 to read:

§ 66273.32. USEPA Notification, Department Notification, and Reporting Requirements for Universal Waste Handlers.

(a) USEPA notification requirements.

(e) Electronic submissions. If submitted electronically through the Department's universal waste web-based reporting system, Department notifications and annual reports required pursuant to subsections (c) and (d) of this section shall be addressed to the Department at http://www.dtsc.ca.gov.

(f) Written submissions. If submitted in writing, Department notifications and annual reports required pursuant to subsections (c), (d), and (g) of this section shall be sent to the Department by certified mail, return receipt requested, at the following address: Department of Toxic Substances Control, Universal Waste Notification and Reporting Staff, P.O. Box 806, Sacramento, CA 95812-0806, with the words “Attention: Universal Waste Handling Activities” prominently displayed on the front of the envelope.

(g) Department notification requirement for universal waste handlers of PV modules.

(1) Any universal waste handler of PV modules who intends to accept and accumulate but not treat, PV modules from an offsite source shall submit to the Department at the address given in subsection (f) of this section, a written notification containing the information specified in subsection (g)(2) of this section prior to accepting PV modules.

(2) This notification shall include:

(A) Name of universal waste handler (if the facility owner is different than the facility operator, also include the owner's name);

(B) ID Number of the universal waste handler, if applicable;

(C) Telephone number of universal waste handler;

(D) Mailing address of universal waste handler and physical address, if different from the mailing address, including county;

(E) Name, telephone number and e-mail address of the contact person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(F) Model number of PV modules accepted

(3) Universal waste handlers shall provide to the Department any changes to the information provided pursuant to subsections (g)(1) and (g)(2) of this section within 30 days of such changes.

(h) Electronic submissions. If submitted electronically through the Department’s e-mail system, Department notifications required pursuant to subsections (g) of this section shall be addressed to the Department at PVmodules@dtsc.ca.gov.
Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code.

Reference: Sections 25141, 25150, 25159.5, 25201, 25214.9, 25219, 25219.1, and 25219.2, Health and Safety Code; and 40 CFR Section 273.32.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 3, section 66273.33.5 to read:

§ 66273.33.5. Universal Waste Management Requirements for Electronic Devices, CRTs, and CRT Glass, and PV Modules.

The requirements of this section apply only to universal waste handlers of electronic devices, CRTs, and/or CRT glass, and PV modules.

(d) PV modules.

(1) A universal waste handler of PV modules shall

(A) Comply with the applicable requirements of sections 66273.30 through 66273.32, and of sections 66273.34 through 66273.39, of this article with respect to the management of PV modules; and

(B) Manage PV modules in a way that prevents releases of any universal waste or component of a universal waste to the environment under reasonably foreseeable conditions, as follows:

1.a. A universal waste handler shall contain any PV module in a manner that prevents breakage and release of components to the environment. If a container is used, such a container shall prevent leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

b. Intact PV modules that are managed in a manner that prevents breakage of the PV modules and release of components of the PV modules to the environment under reasonably foreseeable conditions (e.g., stretch-film on a pallet) shall be deemed to comply with subsection (d)(1)(B)1.a. of this section

2. A universal waste handler shall immediately clean up and place in a container any PV module that is accidentally or unintentionally broken and may be expected to cause a release of hazardous constituents to the environment under reasonably foreseeable conditions. The container shall be structurally sound, compatible with the contents of the PV modules and shall prevent releases of components to the environment under reasonably foreseeable conditions.

(2) Except as otherwise provided in subsection (d)(3) of this section, a universal waste handler of PV modules shall comply with the applicable requirements of article 7 of this chapter in addition to the requirements of subsection (d)(1) of this section with respect to PV modules.

(3) A universal waste handler of PV modules shall be exempt from the requirements of article 7 of this chapter with respect to the PV modules, if the universal waste handler:

(A) Manages only PV modules that are intact (except for the occasional PV module that is accidentally or unintentionally broken and that is managed according to the applicable provisions of this chapter);
(B) Ensures that the intact PV modules remain intact (except for the occasional PV modules that is accidentally or unintentionally broken and that is managed according to the applicable provisions of this chapter) throughout the entire time they are in the universal waste handler's custody; and
(C) Complies with the requirements of section (d)(1) of this section.

Note: Authority cited: Sections 25141, 25150, 25201, 25214.6, 25214.9, 25219.1, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1, and 25219.2, Health and Safety Code; 40 CFR Section 273.33.
§ 66273.34. Labeling/Marking.
Except as otherwise provided in subsection (g), (h), and (i) of this section, a universal waste handler shall label or mark universal waste to identify the type of universal waste as specified in subsections (a) through (i) of this section.

(h) PV modules (i.e., each PV module), or a container or pallet in or on which the PV modules are contained, shall be labeled or marked clearly with the following phrase: "Universal Waste PV Module(s)."

(i) In lieu of labeling individual PV modules and/or containers or pallets of PV modules pursuant to subsection (h) of this section, a universal waste handler may accumulate PV modules within a designated area demarcated by boundaries that are clearly labeled with the following phrase: "Universal Waste PV Module(s)."

Note: Authority cited: Sections 25141, 25150, 25201, 25214.6, 25214.9, 25219, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.6, 25214.9, 25219.1 and 25219.2, Health and Safety Code; 40 CFR Section 273.34.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 3, section 66273.36 to read:

§ 66273.36. Personnel Training.
(a) A universal waste handler shall ensure that all personnel who manage universal wastes at the universal waste handler's facility are thoroughly familiar with proper universal waste management and emergency response procedures relative to those persons' responsibilities, as specified in subsections (b) and (c) of this section.

(1) For purposes of this section, “personnel who manage universal waste” means any persons who consolidate, sort, treat, recycle, package for transport, offer for transport, or physically relocate containers of universal waste.

(2) Persons who, in the course of their normal duties, only generate universal wastes from onsite sources and place them into accumulation containers, areas or locations are not “personnel who manage universal waste” (e.g., an office worker who removes spent batteries from an electronic device).

(b) A universal waste handler shall initially train and provide annually, thereafter, training to all personnel who manage or who supervise those who manage universal wastes.

Training materials shall be in the form of any written media (e.g., brochures, electronic mail, company letters, pamphlets, posters, etc.) and shall include the date of that material. This training shall include, at a minimum:

(1) The types and hazards associated with the universal waste that personnel may manage at the facility (e.g., hazards due to leaded glass in CRT devices or CRTs, and hazards such as cadmium, lead, or selenium in PV modules);

Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 3, section 66273.39 to read:


(a) Receipt of shipments. A universal waste handler shall keep a record of each shipment of universal waste received at the universal waste handler's facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:

(1) The name and address of the originating universal waste handler from which the universal waste was sent;
(2) The quantity [count or weight, consistent with, for example, section 66273.32, subsection (d)] of each type of universal waste received (e.g., batteries, thermostats, lamps, electronic devices, CRTs, CRT glass, PV modules); and
(3) The date of receipt of the shipment of universal waste.

(c) Shipments offsite. A universal waste handler shall keep a record of each shipment of universal waste sent from the universal waste handler's facility to another facility. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent shall include the following information:

(1) The name and address of the universal waste handler or destination facility to which the universal waste was sent;
(2) The quantity [count or weight, consistent with, for example, section 66273.32, subsection (d)] of each type of universal waste sent (e.g., batteries, thermostats, lamps, electronic devices, CRTs, CRT glass, PV modules); and
(3) The date of departure of the shipment of universal waste.

Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 5, section 66273.51 to read:

Article 5. Standards for Universal Waste Transporters

§ 66273.51. Prohibitions.

A universal waste transporter is:

(a) Prohibited from disposing of universal waste;
(b) Prohibited from diluting or treating universal waste, except as a consequence of responding to a release as provided in section 66273.54;
(c) Prohibited from transporting more than five CRTs at any one time unless the CRTs are contained as described in section 66273.33.5, subsection (b)(1)(B); and
(d) Prohibited from transporting more than 100 kilograms or 220 pounds of electronic devices at any one time unless the electronic devices are contained as described in section 66273.33.5, subsection (a)(1)(B); and
(e) Prohibited from transporting PV modules more than 100 kilograms or 220 pounds of PV modules at any one time unless the PV modules are contained as described in section 66273.33.5, subsection (d)(1)(B).

Note: Authority cited: Sections 25141, 25150, 25150.6, 25201, 25214.9, 25219.1, 25259 and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25201, 25214.9, 25219, 25219.1 and, Health and Safety Code; and 40 CFR Section 273.51.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.70 to read:


§ 66273.70. Applicability.

(a) Except as otherwise provided in subsections (b), (c), and (d) of this section, a universal waste handler, who treats universal waste, is subject to all applicable requirements of chapters 14, 15, 16, 18, 20, and 22 of this division with respect to the treatment of that universal waste.

(b) Except as otherwise provided in subsection (d) or (e) of this section, a universal waste handler who manages a universal waste and its integral components, or the components specified below that the handler has removed from the universal waste, for purposes of recycling it or its component(s) or for the purpose of disposing CRTs, or CRT glass or PV modules by performing one or more activities listed in one or more of the three categories given in subsection (c) of this section, shall be deemed authorized by the Department to conduct those activities, provided the universal waste handler complies with the applicable requirements of this article in addition to the applicable requirements of subsection (c) of section 66273.33, and to the applicable requirements of subsections (a)(1), (b)(1), and (c)(1) and (d)(1) of section 66273.33.5, and to the applicable requirements of article 8 of this chapter. The authorization created by this subsection shall not be deemed to be any of the following:

1. A permit-by-rule;
2. A conditional authorization; or
3. A conditional exemption.

(c) Activities eligible for authorization pursuant to subsection (b) of this section are any of the following:

1. Removal activities. Removing user-replaceable components from electronic devices, as specified in section 66273.71.
2. Disassembling/draining activities.
   A. Removing CRTs from electronic devices, as specified in section 66273.72, subsection (b);
   B. Dismantling electronic devices that are not CRT devices and/or removing yokes from CRTs, as specified in section 66273.72, subsection (c);
   C. Removing mercury ampules and/or mercury switches from mercury-containing equipment, as specified in section 66273.72, subsection (d); and/or
   D. Draining liquid mercury from pressure or vacuum gauges, as specified in section 66273.72, subsection (e); and
   E. Dismantling PV modules as specified in 66273.72.
3. Treatment activities.
   A. Treating electronic devices and/or residual printed circuit boards, as specified in section 66273.73, subsection (a); and/or
(B) Treating CRTs and/or CRT glass, as specified in section 66273.73, subsection (b); and
(C) Treating PV modules as specified in 66273.73.

Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.6, 25214.9, 25214.10.2, 25259, 26219.1 and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1 and 25219.2, Health and Safety Code
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.72 to read:


(a)(1) Universal waste handlers shall not conduct any activity pursuant to this section if the activity involves the use or application of:

(A) Chemicals, including water; and/or
(B) External heat.
(2) A universal waste handler shall perform a hazardous waste determination pursuant to section 66262.11 for all residuals resulting from the activities authorized by subsection (c) or (f) of this section, and shall:

(A) Be deemed the generator of all residuals that are hazardous waste.
(B) For all residuals that are hazardous wastes, comply with all the applicable requirements of chapters 12, 14, 15, 16, 18, 20, 22 and 23 of this division and the applicable notification requirements in Health and Safety Code section 25153.6, except as otherwise provided in subsections (a)(3), (a)(4), (a)(6) or (a)(7) of this section.

(f) Dismantling PV modules. A universal waste handler who conducts any of the activities identified in subsection (f)(1) of this section shall be deemed authorized by the Department to do so, provided the universal waste handler complies with the requirements in this subsection.

(1) The universal waste handler dismantles, or otherwise manually segregates, components from PV modules (e.g., frames, junction boxes, wires, inverter and cables, metals, plastic, batteries, etc.).
(2) The universal waste handler shall:

(A) Comply with the notification and recordkeeping requirements specified in section 66273.74, subsections (a)(5) and (c)(3);
(B) Ensure that all residuals resulting from the activities authorized by subsection (f)(1) of this section that meet the definition of scrap metal in section 66260.10 are recycled; and
(C) Conduct the activities in a manner that protects persons managing the PV modules, and that prevents releases of any universal wastes and/or any components of universal wastes, to the environment under reasonably foreseeable conditions, as follows:

1. Dismantle PV modules over, on, or in, a containment device (e.g., a tray, a box, a workbench, a table,) sufficient in size and construction to contain any universal waste and/or component of such waste that may be released to the environment under reasonably foreseeable conditions.
2. Contain any hazardous residuals produced from dismantling PV modules in a manner that prevents releases of the residuals to the environment under reasonably foreseeable conditions.
3. Immediately clean up and place in a container PV module that is 
accidentally or unintentionally broken and that may reasonably be expected to 
cause a release to the environment under reasonably foreseeable conditions. 
Such a container shall be structurally sound, be compatible with the contents 
of the PV module and prevent releases to the environment under reasonably 
foreseeable conditions.

4. Place PV modules in containers/pallets with packing materials (placed in 
shipping boxes and/or secured by stretch-film on a pallet) if such materials are 
necessary to prevent breakage during handling, storage and transportation.

5. Ensure that persons performing the activities are thoroughly familiar with 
the hazards associated with such treatment, have access to the proper 
procedures and protective equipment necessary to conduct the treatment 
safely, use such protective equipment if required by any applicable health and 
safety requirements, and comply with the requirements of this section.

6. Ensure that the facility is operated in compliance with all applicable health 
and safety laws and regulations [e.g., Cal. Code Regs., tit. 8, ch. 4 (Division 
of Industrial Safety) subch. 7 (General Industry Safety Orders), group 16 
(Control of Hazardous Substances), art. 107 (Dusts, Fumes Vapors and 
Mists), and art. 109 (Hazardous Substances and Processes), and sec. 5198 
(Lead)].

7. Ensure that the facility maintains aisle spacing in compliance with 
applicable fire safety code standards in California.

Note: Authority cited: Sections 25141, 25141.5, 25143.2, 25150, 25173, 25201, 
25214.6, 25214.9, 25214.10.2, 25219.1, 25259 and 58012, Health and Safety Code; 
and Section 42475, Public Resources Code. Reference: Sections 25141, 25141.5, 
25150, 25159.5, 25173, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1 and 25219.2, 
Health and Safety Code
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.73 to read:

§ 66273.73. Authorization for Treatment (Processing) Activities

(a) Treatment of electronic devices and PV modules.

(1) A universal waste handler described in subsection (a)(1)(A) of this section shall be deemed authorized by the Department to conduct the activities identified in subsection (a)(1)(B) of this section, provided the universal waste handler complies with the requirements specified in subsections (a)(1)(B) and (a)(1)(C) of this section.

(A) The universal waste handler treats electronic devices and/or residual printed circuit boards for which the handler is deemed to be the generator pursuant to sections 66273.71 and/or 66273.72 and produces only residuals that, if they exhibit any hazardous waste characteristic described in article 3 of chapter 11 of this division, will meet either of the following criteria when managed pursuant to section 66273.75, subsection (c):

1. They meet the definition of scrap metal in section 66273.9; or
2. They qualify for management as universal wastes pursuant to this chapter.

(B) The universal waste handler treats electronic devices and/or residual printed circuit boards for which the handler is deemed to be the generator pursuant to sections 66273.71 and/or 66273.72 by conducting activities other than, or in addition to, the removal activities authorized in section 66273.71 or the disassembling/drainaging activities authorized by section 66273.72, and using only one or more of the methods allowed pursuant to subsection (c) of this section.

(C) The universal waste handler complies with all of the following requirements in addition to the requirements of section 66273.33.5, subsection(a)(1) and (d)(1):

1. The notification, annual reporting, and recordkeeping requirements specified in section 66273.74; and
2. The standards specified in section 66273.75.

(2) A universal waste handler described in subsection (a)(2)(A) of this section shall be deemed authorized by the Department to conduct the activities identified in subsection (a)(2)(B) of this section, provided the universal waste handler complies with the requirements specified in subsections (a)(2)(B) and (a)(2)(C) of this section.

(A) The universal waste handler treats electronic devices, PV modules and/or residual printed circuit boards for which the handler is deemed to be the generator pursuant to sections 66273.71 and/or 66273.72 and produces any residual that exhibits a hazardous waste characteristic described in article 3 of chapter 11 of this division when managed pursuant to section 66273.75, subsection (c) and meets both of the following criteria:

1. It does not meet the definition of scrap metal in section 66273.9; and
2. It does not qualify for management as universal wastes pursuant to this chapter.

(B) The universal waste handler treats electronic devices, PV modules and/or residual printed circuit boards for which the handler is deemed to be the
generator pursuant to sections 66273.71 and/or 66273.72 by conducting activities other than, or in addition to, the removal activities authorized in section 66273.71 and the disassembling/draining activities authorized in section 66273.72, and using only one or more of the methods allowed pursuant to subsection (c) of this section.

(C) The universal waste handler complies with all of the following requirements in addition to the requirements of section 66273.33.5, subsection (a)(1) and (d)(1):

1. The notification, annual reporting, and recordkeeping requirements specified in section 66273.74;
2. The standards specified in section 66273.75;
3. The closure plan and financial requirements specified in section 66273.76; and
4. When applicable, the closure requirements specified in section 66273.77.

(c) Electronic device, CRT, PV modules and residual printed circuit board treatment methods allowed.

(1) Except as otherwise provided in subsection (c)(2) of this section, one or more of the following treatment methods is eligible for authorization pursuant to this section, if performed by a universal waste handler described in subsections (a) and/or (b) of this section:

(A) Physical treatment that changes only the physical properties of electronic devices, residual printed circuit boards, and/or CRTs, or PV modules such as cutting, sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or compacting (e.g., screening to separate different particle sizes of the same component);
(B) Physical separation based on differences in physical properties such as size, color, density, or ferromagnetism (e.g., screening to separate different components based on differences in their sizes);

(2) Any treatment activity identified in subsection (c)(1) of this section is not eligible for authorization pursuant to this article, but is instead subject to all applicable requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the treatment activity involves:

(A) The use or application of;
1. Chemicals, including water, other than coolant recirculated in CRT cutting machines; and/or
2. External heat.

Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.74 to read:

§ 66273.74. Notification, Annual Reporting, and Recordkeeping.

(a) Notification.

(5) Universal waste handlers of PV modules.
Except as otherwise provided in section 66273.72, a universal waste handler who intends to treat any of PV module pursuant to this article shall submit to the Department at the address given in subsection (f) of this section, a written notification containing the following information prior to treating any PV module:

(A) Name of universal waste handler;
(B) Telephone number of universal waste handler;
(C) Mailing address of universal waste handler, and physical address, including county, if different from the mailing address;
(D) If different from the notifier pursuant to subsection (a) of this section, the name and mailing address of the organization (as authorized to transact business in California) that owns and/or operates the facility;
(E) Name, business telephone number, and e-mail address (if available) of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;
(F) Facility ID Number, if issued;
(G) A general description of model numbers of PV modules treated;
(H) A description of the treatment process(es) to be used; and
(I) Documentation that the facility operator has notified the facility property owner (if different from the operator of the facility) that the facility operator is treating PV modules at the facility.

(c) Recordkeeping.

(1)(A) Universal waste handlers of electronic devices and/or CRTs.
Except as otherwise provided in sections 66273.71 and 66273.72, a universal waste handler who treats any electronic device and/or CRT pursuant to this article shall maintain on file at the universal waste handler's facility, the following documents as specified:

(3) Universal waste handlers of PV modules.
Except as otherwise provided in sections 66273.71 and 66273.72, a universal waste handler who treats any PV modules pursuant to this article shall maintain on file at the universal waste handler's facility, the following documents as specified:

(A) A copy of the notification submitted to the Department as required by subsection (a)(5) of this section.
(B) A current copy of any local air district permit and/or other relevant permit
required for the facility, beginning no later than the date on which the local air
district and/or other relevant permitting authority required the universal waste
handler to possess such a permit.

Note: Authority cited: Sections 25141, 25141.5, 25143.2, 25150, 25201, 25214.6,
25214.9, 25214.10.2, 26219.1, 25259 and 58012, Health and Safety Code; and Section
42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25143.2, 25150,
25159.5, 25179.6, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1 and 25219.2,
Health and Safety Code.
Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.74 to read:

§ 66273.75. Treatment (Processing) Standards.

A universal waste handler who treats electronic devices, residual printed circuit boards, and/or CRTs or PV modules pursuant to section 66273.73 shall comply with the following standards:

(a) Treatment

The universal waste handler shall:

(1) Utilize only treatment methods identified in section 66273.73, subsection (c);
(2) Ensure that all mercury-containing lamps, PCB capacitors, and other components containing fluids (i.e., liquids or gases) that would be identified as hazardous wastes, are removed prior to treatment methods that may release the fluids such as cutting, sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or compacting;
(3) Conduct treatment activities over, or in, a containment device (e.g., a tray, a box, a workbench, a table, or an enclosed machine) sufficient in size and construction to contain any materials that might be released to the environment under reasonably foreseeable conditions.
(4) Ensure that all hazardous wastes generated from treatment activities and sent offsite for disposal are managed (i.e., manifested) in accordance with the applicable requirements of article 2 of chapter 12 of this division.
(5) Comply with the requirements of sections 66265.18 and 66265.25 of chapter 15 of this division to the extent that those requirements apply to facility location and design standards.
(6) Ensure that all treatment is conducted in compliance with all applicable state and local air pollution control laws and regulations.
(7) Treat electronic devices that are not CRT devices, PV modules and/or residual printed circuit boards only for the purpose of recycling one or more of their components.
(8) For disposal of CRT panel glass at a class II or class III landfill pursuant to this section and article 8 of this chapter:
(A) Separate CRT panel glass from CRT funnel glass; and
(B) Remove all phosphor powders from the CRT panel glass.

(b) Containment of residuals.

(1) The universal waste handler shall manage all residuals produced from treating electronic devices, residual printed circuit boards, and/or CRTs, or PV modules in a
manner that prevents a release to the environment of any universal waste or any component thereof, as follows:
(2) Contain any residuals that are produced from treating electronic devices, residual printed circuit boards, and/or CRTs, or PV modules in a manner that prevents releases of hazardous residuals to the environment under reasonably foreseeable conditions.
(3) Clean up and immediately place in a container any electronic device, residual printed circuit board, and/or CRT or PV modules that is accidentally or unintentionally broken and that might reasonably be expected to cause a release to the environment under reasonably foreseeable conditions. Such containers shall be structurally sound, be compatible with the contents of the electronic devices, residual printed circuit boards, and/or CRTs or PV modules and prevent releases under reasonably foreseeable conditions.

(d) Worker safety.
(1) A universal waste handler, who treats electronic devices, residual printed circuit boards, and/or CRTs or PV modules shall be thoroughly familiar with the hazards associated with such treatment, have access to the proper procedures and protective equipment necessary to conduct the treatment safely, use such protective equipment if required by any applicable health and safety requirements, and comply with the requirements of this section;
(2) A universal waste handler, who treats electronic devices, residual printed circuit boards, and/or CRTs or PV modules shall ensure that the universal waste handler's facility is operated in compliance with all applicable health and safety laws and regulations [e.g., Cal. Code Regs., tit. 8, ch. 4 (Division of Industrial Safety), subch. 7 (General Industry Safety Orders), group 16 (Control of Hazardous Substances), art. 107 (Dusts, Fumes Vapors and Mists), and art. 109 (Hazardous Substances and Processes), and sec. 5198 (Lead)].

(e) Zoning.
(1) A universal waste handler, who treats electronic devices, residual printed circuit boards, and/or CRTs or PV modules using any of the methods allowed pursuant to this section, shall ensure that such treatment is consistent with local zoning requirements and land use patterns applicable to the universal waste handler's facility.

Amend California Code of Regulations, title 22, division 4.5, chapter 23, article 7, section 66273.76 to read:


(a) Except as otherwise provided in subsections (a)(4) and (b)(5) of this section, and in addition to the universal waste handler notification required pursuant to section 66273.74, subsection (a), a universal waste handler who intends to conduct one or more of the treatment activities described in section 66273.73, subsections (a)(2) and (b) shall submit the information specified in subsections (a)(1) through (d) of this section to the Department in the manner and at the address given in subsections (e) and (f) of this section, no later than 30 calendar days prior to initially conducting those treatment activities:

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Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1, 25259 and 58012, Health and Safety Code; and Section 42475, Public Resources Code.

Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.9, 25219, 25219.1 and 25219.2, Health and Safety Code.
§ 66273.77. Closure of Universal Waste Treatment Facilities.

(a) Closure notification.
A universal waste handler who intends to close a universal waste treatment facility or any universal waste treatment unit, including universal waste units that also treat residual printed circuit boards that have been determined to be exempt scrap metal pursuant to section 66273.71, subsection (e), section 66273.72, subsection (a)(3), or section 66273.75, subsection (c)(1)(C), and who conducts any of the treatment activities described in section 66273.73, subsection (a)(2) or (b) shall: