

FINAL REGULATORY TEXT
April, 2020

Photovoltaic modules (PV modules) – Universal Waste Management

Department of Toxic Substances Control reference number: R-2017-04
Office of Administrative Law Notice File Number: Z-2019-0409-04

Adopt and amend sections and articles in chapters 10, 11, and 23, to division 4.5 of title 22 of the California Code of Regulations, to read as follows:

(Note: The proposed amendments are shown in underline to indicate additions and strikeout to indicate deletions from regulatory text. The symbol “*****” means that intervening text not proposed for amendment is not shown.)

Amend Title 22, division 4.5, chapter 10, article 2, section 66260.10 to read:

§ 66260.10. Definitions.

When used in this division, the following terms have the meanings given below:

“Personnel” or “facility personnel” means all persons who work, at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of this division.

“Photovoltaic cell” means a specialized semiconductor diode designed to convert solar radiation into electrical energy. Photovoltaic cells are individual cells that are not electrically connected or an integral part of photovoltaic modules that are electrically connected. Photovoltaic cells are also commonly referred to as solar cells. Photovoltaic cells are managed as photovoltaic modules.

“Photovoltaic module” means a device consisting of or containing one or more electrically connected photovoltaic cells that are designed to convert solar radiation into electrical energy. Photovoltaic module includes integrated components that cannot be separated without breaking the photovoltaic module glass. Examples of integrated components include, but not limited to, protective glass, conductive metal contact, metal framing the photovoltaic cells, housing or pocket holding the photovoltaic cells/modules, and top and back layer. Photovoltaic modules are composed of, but are not limited to, monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium telluride, copper indium gallium selenide, and gallium indium phosphide/gallium arsenide/gallium, and perovskite. Photovoltaic modules are also commonly referred to as photovoltaic

panels or solar panels. Photovoltaic cells that are not electrically connected are managed as photovoltaic modules.

“Photovoltaic panel” see “photovoltaic module.”

“Photovoltaic system” means a set of components consisting of one or more photovoltaic modules and includes any ancillary components that can be manually separated without breaking the photovoltaic module glass such as, but not limited to, metal frames used to support the photovoltaic module, connectors, junction boxes, batteries, inverters, wires, and cables that are connected to the photovoltaic module. Photovoltaic systems are also commonly referred to as solar systems.

“Physical parameter” means any measurable physical characteristic of a substance including, but not limited to, temperature, electrical conductivity, pH and specific gravity.

“Publicly owned treatment works” or “POTW” means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a “State” or “municipality” (as defined by 33 U.S.C. section 1362). This definition includes sewers, pipes or other conveyances only if they convey wastewater to a POTW providing treatment.

“PV cell” see “photovoltaic cell.”

“PV module” see “photovoltaic module.”

“PV system” see “photovoltaic system.”

“R chart” (Range chart) means a control chart for evaluating the variability within a process in terms of the subgroup range R.

“RCRA Characteristic” means the characteristic of ignitability, corrosivity, reactivity, or toxicity identified in sections 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23, and 66261.24(a)(1) of this division.

“Schedule of compliance” means a schedule of remedial measures included in a permit or order, including an enforceable sequence of interim requirements (for example, actions, operations or milestone events) leading to compliance with applicable law.

“Scrap metal” means (a) any one or more of the following, except as provided in subsection (b) of this section:

- (1) Manufactured, solid metal objects and products;
- (2) Metal workings, including cuttings, trimmings, stampings, grindings, shavings and sandings;
- (3) Solid metal residues of metal production; or
- (4) Printed circuit boards that are recycled [except for printed circuit boards referenced in subsec. (b)(7) of this section].

(b) “Scrap metal” excludes all of the following:

- (1) lead-acid storage batteries, waste elemental mercury, and water-reactive metals such as sodium, potassium and lithium;
- (2) magnesium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing independent combustion;
- (3) beryllium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing adverse health effects or environmental harm in the opinion of the Department;
- (4) any metal contaminated with a hazardous waste, such that the contaminated metal exhibits any characteristic of a hazardous waste under article 3 of chapter 11 of this division;
- (5) any metal contaminated with an oil that is a hazardous waste and that is free-flowing;
- (6) sludges, fine powders, semi-solids and liquid solutions that are hazardous wastes; and
- (7) any printed circuit board that has been removed from a universal waste electronic device or PV module by a universal waste handler as a result of the handler’s conduct of activities authorized by sections 66273.71, 66273.72, and/or 66273.73 of chapter 23 of this division and is subject to management as a hazardous waste pursuant to sections 66273.71, 66273.72, and/or 66273.73.

“Semitrailer” means a vehicle designed for carrying persons, property or waste, used in conjunction with a motor vehicle, and so constructed that some part of its weight and that of its load rests upon, or is carried by, another vehicle.

“Soil-pore liquid” means the liquid contained in openings between particles of soil in the unsaturated zone.

“Solar cell” see “photovoltaic cell.”

“Solar panel” see “photovoltaic module.”

“Solar system” see “photovoltaic system.”

“Solid Waste Management Unit” means any unit at a hazardous waste facility from which hazardous constituents might migrate, irrespective of whether the units were

intended for the management of wastes, including but not limited to: containers, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators and underground injection wells.

Note: Authority cited: Sections 25141, 25150, 25158.1, 25158.4, 25159, 25159.5, 25187.7, 25200.10, 25204, 25214.9, 25214.10.2, 25218.3(d), 25200.21, 25245, 25259, 25316, 25355.5, 25356.9, 25358.9, 58004, and 58012, Health and Safety Code; Governor's Reorganizational Plan #1 of 1991; and Sections 42475.1 and 42475.2, Public Resources Code. Reference: Sections 25110.02, 25110.1, 25110.5, 25111, 25112, 25112.5, 25113, 25114, 25115, 25117, 25117.1, 25117.3, 25117.8, 25117.9, 25117.11, 25118, 25119, 25120, 25121, 25121.5, 25122.7, 25123, 25123.3, 25123.5, 25123.6, 25141, 25150, 25158.2, 25159, 25159.5, 25187.7, 25200.10, 25201.6, 25204, 25214.9, 25218.1(f), 25218.3, 25200.1, 25229, 25245, 25259, 25316, 25354(b), 25355.5, 25355.6, 25356.9, 25358.1, 25358.9, 25359.8, 25361, 25501, 25529, and 58012, Health and Safety Code; and 40 CFR Sections 260.10, 261.1, 262.21, 264.551, 264.1031, 268.2, 270.2, and 273.6.

Amend 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) Photovoltaic 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.

Note: Authority cited: Sections 25141, 25150, 25150.6, 25201, 25214.9, 25214.10.1, 25219.1, 25259, and 58012, Health and Safety Code; and Section 42475.2, Public Resources Code. Reference: Sections 25117.2, 25141, 25150, 25159.5, 25180-25196, 25214.5, 25214.9, 25219, 25219.1, ~~and 25219.2, and 25259~~, Health and Safety Code; 40 CFR Section 261.9.

Amend 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) Photovoltaic 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, 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, and 25259,~~ Health and Safety Code; 40 CFR Section 273.1.

Add Title 22, division 4.5, chapter 23, article 1, section 66273.7.1 to read:

§66273.7.1. Applicability — PV modules.

(a) PV modules covered pursuant to chapter 23:

(1) The requirements of this chapter apply to PV modules, as defined in section 66273.9, except PV modules listed in subsection (b) of this section; and

(2) Discarded PV modules that are hazardous solely because the modules exhibit the characteristic of toxicity specified in section 66261.24.

(b) PV modules not covered pursuant to chapter 23. 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 of this division. Subsection (d) of this section describes when PV modules become wastes;

(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 exhibit any characteristic of a hazardous waste other than the characteristic of toxicity. 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 destined for recycling (or are recycled) by being “used in a manner constituting disposal,” as described in section 66266.20. Such PV modules shall be managed as hazardous waste pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;

(5) Except as otherwise provided in section 66273.72 of this chapter, PV modules that are destined for disposal at 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;

(6) PV modules that are managed as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this division; and

(7) 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 are refurbished and are returned to service).

(c) PV modules that are integrated into the structure of an electronic device as defined in section 66273.9 (e.g., calculators) shall be managed as an electronic device.

(d) Generation of waste PV modules.

(1) A used PV module becomes a waste on the date it is discarded.

(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 while destined for reclamation); or

(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.

(e) A respondent in an action to enforce regulations in 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.

NOTE: Authority cited: Sections 25141, 25150, 25214.6, 25159, and 58012, Health and Safety Code. Reference: Sections 25141, 25150, and 25259, Health and Safety Code.

Amend 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.

“Onsite” means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, are also considered onsite property.

“Photovoltaic cell” means a specialized semiconductor diode designed to convert solar radiation into electrical energy. Photovoltaic cells are individual cells that are not electrically connected or an integral part of PV modules that are electrically connected. Photovoltaic cells are also commonly referred to as solar cells. Photovoltaic cells are managed as photovoltaic modules.

“Photovoltaic module” means a device consisting of one or more electrically connected photovoltaic cells that are designed to convert solar radiation into electrical energy. Photovoltaic module includes integrated components that cannot be separated without breaking the photovoltaic module glass. Examples of integrated components include, but not limited to, protective glass, conductive metal contact, metal framing the photovoltaic cells, housing or pocket holding the photovoltaic cells/modules, and top and back layer. Photovoltaic modules are composed of, but are not limited to, monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium telluride, copper indium gallium selenide, gallium indium phosphide/gallium arsenide/gallium, and perovskite. Photovoltaic modules are also commonly referred to as photovoltaic panels or solar panels. Photovoltaic cells that are not electrically connected are managed as photovoltaic modules.

“Photovoltaic panel” see “photovoltaic module.”

“Photovoltaic system” means a set of components consisting of one or more photovoltaic modules and includes any ancillary components that can be manually separated without breaking the photovoltaic module glass such as, but not limited to, metal frames used to support the photovoltaic module, connectors, junction boxes,

batteries, inverters, wires, and cables that are connected to the photovoltaic module. Photovoltaic systems are also commonly referred to as solar systems.

“Pressure or vacuum gauge” means any device in which pressure or vacuum is measured using the height of a column of liquid mercury. “Pressure or vacuum gauge” includes, but is not limited to, barometers, manometers, and sphygmomanometers.

“Producer” see “Generator.”

“PV cell” see “photovoltaic cell.”

“PV module” see “photovoltaic module.”

“PV system” see “photovoltaic system.”

“Scrap metal” means (a) any one or more of the following, except as provided in subsection (b) of this section:

- (1) Manufactured, solid metal objects and products;
- (2) Metal workings, including cuttings, trimmings, stampings, grindings, shavings and sandings;
- (3) Solid metal residues of metal production; or
- (4) Printed circuit boards that are recycled [except for printed circuit boards referenced in subsec. (b)(7) of this section].

(b) “Scrap metal” excludes all of the following:

- (1) lead-acid storage batteries, waste elemental mercury, and water-reactive metals such as sodium, potassium and lithium;
- (2) magnesium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing independent combustion;
- (3) beryllium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing adverse health effects or environmental harm in the opinion of the Department;
- (4) any metal contaminated with a hazardous waste, such that the contaminated metal exhibits any characteristic of a hazardous waste under article 3 of chapter 11 of this division;
- (5) any metal contaminated with an oil that is a hazardous waste and that is free-flowing;
- (6) sludges, fine powders, semi-solids and liquid solutions that are hazardous wastes; and
- (7) any printed circuit board that has been removed from a universal waste electronic device or PV module by a universal waste handler as a result of the handler’s conduct of activities authorized by sections 66273.71, 66273.72, and/or 66273.73 of chapter 23 of this division and is subject to management as a hazardous waste pursuant to sections 66273.71, 66273.72, and/or 66273.73.

“Solar cell” see “photovoltaic cell.”

“Solar panel” see “photovoltaic module.”

“Solar system” see “photovoltaic system.”

“Thermometer” means any thermometer that uses the expansion and contraction of a column of mercury to measure temperature.

Note: Authority cited: Sections 25141, 25141.5, 25150, 25214.6, 25150.6, 25201, 25214.9, 25219.1, 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,~~ and 25259, Health and Safety Code; 40 CFR Sections 261.4, 261.5 and 273.9.

Amend Title 22, division 4.5, chapter 23, article 3, section 66273.31 to read:

§66273.31. Prohibitions.

A universal waste handler is:

(a) Prohibited from disposing of universal waste [however, a universal waste handler may send or take batteries, thermostats, mercury-added novelties containing no liquid mercury, ~~and mercury-containing rubber flooring,~~ and PV modules that are universal wastes to a destination facility for disposal]; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in section 66273.37, or by managing specific wastes as provided in sections 66273.33, ~~and 66273.33.5,~~ and 66273.33.6.

Note: Authority cited: Sections 25141, 25150, 25219.1, 25259, and 58012, Health and Safety Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1, ~~and 25219.2,~~ and 25259, Health and Safety Code; 40 CFR Section 273.31.

Amend 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.

(c) Department notification requirements for universal waste handlers of electronic devices, CRTs, and CRT glass.

(1) Any universal waste handler who might accept and accumulate, but not treat, any electronic device, CRT, and/or CRT glass from an offsite source shall submit to the Department at the address given in subsection ~~(e) or (f)~~ (g) or (h) of this section, an electronic or written notification containing the information specified in subsection (c)(2) of this section no later than 30 calendar days prior to accepting any electronic device, CRT and/or CRT glass.

(d) Annual reporting requirements for universal waste handlers of electronic devices, CRTs, and CRT glass.

(1) A universal waste handler that accepts more than 100 kilograms (or 220 pounds) of electronic devices, CRTs, and CRT glass calculated collectively, from any offsite sources in a calendar year shall, by February 1 of the following year, submit to the Department at the address given in subsection ~~(e) or (f)~~ (g) or (h) of this section, an electronic or written annual report containing the information specified in subsection (d)(3) of this section. The information submitted pursuant to this subsection (d)(1) shall cover the electronic-device-handling, CRT-handling, and CRT-glass-handling activities conducted during the previous calendar year.

(2) A universal waste handler that generates 5,000 kilograms (or 11,000 pounds; e.g., about 200 CRTs) or more of electronic devices, CRTs, and CRT glass calculated collectively, in a calendar year shall, by February 1 of the following year, submit to the Department at the address given in subsection ~~(e) or (f)~~ (g) or (h) of this section, an electronic or written annual report containing the information specified in subsection (d)(3) of this section. The information submitted pursuant to this subsection (d)(2) shall:

(e) Department notification requirements for universal waste handlers of PV modules.

(1) Any universal waste handler who might accept and accumulate, but not treat, any PV modules from an offsite source shall submit to the Department, at the address given in subsection (h) of this section, a written notification containing the information specified in subsection (e)(2) of this section no later than 30 calendar days prior to accepting any PV modules.

(2) This notification shall include:

(A) Name of the 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 the universal waste handler;

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

(E) Name of the contact person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(F) Telephone number of the contact person;

(G) An email address for the contact person or organization, if available;

(H) The type(s) of PV modules expected to be handled, if known (e.g., crystalline silicon, thin film, etc.);

(I) The sources of the PV modules if known (i.e., residential collections, business asset recovery, other collectors, etc.); and

(J) A statement indicating whether the universal waste handler might accumulate 5,000 kilograms or more of universal waste at one time.

(3) Notifications made pursuant to this subsection shall be made for each location at which the universal waste handler accepts or accumulates PV modules from an offsite source, i.e., the handler's facility.

(f) Annual reporting requirements for universal waste handlers of PV modules.

(1) A universal waste handler that accepts more than 100 kilograms (or 220 pounds) of PV modules from any offsite sources in a calendar year shall, by February 1 of the following year, submit to the Department, at the address given in subsection (h) of this section, a written annual report containing the information specified in subsection (f)(3) of this section. The information submitted pursuant to this subsection shall cover the PV module-handling activities conducted during the previous calendar year.

(2) A universal waste handler that generates 5,000 kilograms (or 11,000 pounds) or more of PV modules in a calendar year shall, by February 1 of the following year, submit to the Department, at the address given in subsection (h) of this section, a written annual report containing the information specified in subsection (f)(3) of this section. The information submitted pursuant to this subsection shall identify the PV module-handling activities conducted during the previous calendar year; and

(3) This annual report shall include:

(A) Name of the 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 the universal waste handler;

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

(E) Name of the contact person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(F) Telephone number of the contact person;

(G) An email address for the contact person or organization, if available;

(H) Type(s) of PV modules handled, if known (e.g., crystalline silicon, thin film, etc.);

(I) The total quantity of PV modules (count or weight) handled, which include any quantities handled but not shipped during the previous calendar year;

(J) A list consisting of:

1. The name, address, and telephone number for each of the locations to which the universal waste handler shipped PV modules during the previous calendar year;

2. The total quantity of PV modules (count or weight) shipped to each of those locations during the previous calendar year; and

3. A description of how each of those locations intended to manage the PV modules, including whether the PV modules were to be recycled or disposed of.

~~(e)-(g)~~(1) 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 <https://www.dtsc.ca.gov>.

(2) A person that has provided written submissions of any of the Department notifications and annual reports required pursuant to subsections (c) or (d) of this section is not required to submit the same information electronically.

(3) If the Department's universal waste web-based reporting system is not available or cannot accommodate electronic submissions for any of the Department notifications and annual reports required pursuant to subsections (c) or (d) of this section, the handler shall provide written submissions in accordance with subsection (h).

~~(f)-(h)~~(1) Written submissions. If submitted in writing, Department notifications and annual reports required pursuant to subsections (c) and (d), or (e) and (f) 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.

(2) A person that has provided electronic submissions of any of the Department notifications and annual reports required pursuant to subsections (c), (d), (e), or (f) of this section through the Department's universal waste web-based reporting system in accordance with subsection (g) of this section is not required to submit the same information in writing.

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, and 25259, Health and Safety Code; and 40 CFR Section 273.32.

Add Title 22, division 4.5, chapter 23, article 3, section 66273.33.6 to read:

§ 66273.33.6 Universal Waste Management Requirements for PV Modules.

The requirements of this section apply only to universal waste handlers of PV modules.

(a) 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 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 constituent of a PV module 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 any constituent of a PV module to the environment. If a container or package is used, such a container or package shall prevent breakage, 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 constituents 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 (a)(1)(B)1.a. of this section.

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

(2) Except as otherwise provided in subsection (a)(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 (a)(1) of this section with respect to the 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 module 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 (a)(1) of this section.

Note: Authority cited: Sections 25141, 25150, 25201, 25259, and 58012, Health and Safety Code. Reference: Sections 25141, 25150, 25201, and 25259, Health and Safety Code.

Amend Title 22, division 4.5, chapter 23, article 3, section 66273.34 to read:

§ 66273.34. Labeling/Marking.

Except as otherwise provided in subsection ~~(g)~~(h) 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 ~~(f)~~(g) of this section.

(f) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass".

(g) PV modules (i.e., each PV module), or a container or pallet in or on which the PV modules are contained or placed within a designated area demarcated by boundaries, shall be labeled or marked clearly with the following phrase: "Universal Waste-PV module(s)".

~~(g)~~ (h) In lieu of labeling individual electronic devices, CRTs, and/or containers of CRT glass pursuant to subsections (d) through (f) of this section, a universal waste handler may combine, package, and accumulate those universal wastes in appropriate containers or within a designated area demarcated by boundaries that are clearly labeled with the applicable portion(s) of the following phrase: "Universal Waste-Electronic Device(s)/Universal Waste-CRT(s)/Universal Waste-CRT Glass".

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, 25219.1, ~~and 25219.2, and 25259~~, Health and Safety Code; 40 CFR Section 273.34.

Amend Title 22, division 4.5, chapter 23, article 3, section 66273.37 to read:

§ 66273.37. Response to Releases.

- (a) A universal waste handler shall immediately contain all releases of universal wastes and of residues from universal wastes to the environment.
- (b) A universal waste handler shall determine whether any material resulting from such a release is a hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of this division. The universal waste handler is considered the generator of the hazardous waste resulting from the release, and is subject to the requirements of chapter 12.
- (c) Hazardous waste consisting only of residues of leaking, broken, or otherwise damaged universal waste may be managed as universal waste provided that the leaking, broken, or otherwise damaged universal waste is repackaged according to the standards of section 66273.33, ~~or 66273.33.5,~~ or 66273.33.6.

Note: Authority cited: Sections 25141, 25150, 25219.1, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1, ~~and 25219.2,~~ and 25259. Health and Safety Code; 40 CFR Section 273.37.

Amend Title 22, division 4.5, chapter 23, article 3, section 66273.39 to read:

§ 66273.39. Tracking Universal Waste Shipments.

(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, movement document, 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, movement document, 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.

Note: Authority cited: Sections 25141, 25150, 25150.6, 25219.1, 25219.2, 25259, and 58012, Health and Safety Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1, ~~and~~ 25219.2, and 25259, Health and Safety Code; 40 CFR Section 273.39.

Amend 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 more than 100 kilograms (220 pounds) of PV modules at any one time unless the PV modules are contained as described in section 66273.33.6, subsection (a)(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, 25219.2, and 25259, Health and Safety Code; and 40 CFR Section 273.51.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.70 to read:

Article 7. Authorization Requirements for Universal Waste Handlers Who Treat Universal Wastes

§ 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) 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 of 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) of section 66273.33.5, and to the applicable requirements of subsection (a)(1) of section 66273.33.6,~~ 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, or PV systems, 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/or
 - (E) Dismantling PV modules, as specified in section 66273.72, subsection (f).
- (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/or
(C) Treating PV modules as specified in 66273.73, subsection (c).

Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.6, 25214.9, 26219.1, 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~~, and 25259, Health and Safety Code.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.71 to read:

§ 66273.71. Authorization for Removal Activities.

(a) Removing user-replaceable components.

A universal waste handler, who conducts the activities identified in subsections (b) and (c) of this section on electronic devices, or PV systems, shall be deemed authorized by the Department to perform these activities, and is exempt from the requirements of sections 66273.74 through 66273.77, provided the universal waste handler complies with the requirements specified in subsections (b) through (g) of this section.

(b) A universal waste handler shall remove only those discrete assemblies, such as batteries or ink cartridges from electronic devices, or batteries, inverters, cables, connectors or diode boxes from PV systems, which are typically removed for replacement during the normal operation and maintenance of an electronic device or PV system.

(c) A universal waste handler shall conduct the removal of the discrete assemblies in the manner that is prescribed in the operating manual for the electronic device, or PV system or in a manner that would otherwise reasonably be employed during the normal operation and maintenance of the electronic device or PV system.

(f)(1) Prior to conducting any subsequent treatment activity authorized by section 66273.73 on any residual printed circuit board resulting from removal activities conducted under this section, a universal waste handler shall manage the residual printed circuit board in a manner that prevents a release to the environment by:

(A) Containing the residual printed circuit board in a container that is structurally sound and compatible with the residual printed circuit board,

(B) Labeling the container with the following phrase: "Residual Printed Circuit Boards," and

(C) If the residual printed circuit board is spilled or might reasonably be expected to cause a release to the environment under reasonably foreseeable conditions, cleaning it up and placing it in a container.

(2) A universal waste handler who conducts any subsequent treatment activity authorized by section 66273.73 on any residual printed circuit board resulting from removal activities conducted under this section shall comply with section 66273.73, subsections (a)(1), ~~and/or (a)(2)~~, (c)(1), and/or (c)(2), as applicable.

(3) A universal waste handler who does not conduct any of the subsequent treatment activities authorized by section 66273.73 on a residual printed circuit board resulting from removal activities conducted under this section shall manage the printed circuit board as prescribed in section 66273.75, subsection (c).

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, and 25259~~, Health and Safety Code.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.72 to read:

§ 66273.72. Authorization for Disassembling/Draining Activities.

(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 subsections (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 who dismantles, removes, or otherwise manually segregates components (e.g., glass panels, metal framing the photovoltaic cells/modules, housing or pocket holding the photovoltaic cells/modules) of a PV module, but does not break the PV module glass.

(2) The universal waste handler shall:

(A) Comply with the notification, annual reporting, and recordkeeping requirements specified in section 66273.74, subsections (a)(4) and/or (a)(5), (b)(3), and (c)(3);

(B) Ensure that all segregated or removed components resulting from the activities authorized by subsection (f)(1) of this section that meet the definition of scrap metal in section 66273.9 are recycled;

(C) Except as provided in subsection (f)(3) of this section, treat the PV modules pursuant to section 66273.73 or send or take PV modules to another universal waste handler for treatment pursuant to section 66273.73; and

(D) Conduct the activities in a manner that protects persons managing the PV modules, and that prevents releases of any universal wastes and/or any constituents of the PV modules to the environment under reasonably foreseeable conditions, as follows:

1. Dismantle PV modules over or in a designated area (e.g., a concrete surface) sufficient in size and construction to contain any materials from being released to the environment under reasonably foreseeable conditions, and provided the

universal waste handler conducts such activities in a manner that prevents breakage of the PV modules;

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 any 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. 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;

5. 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, Mists, Vapors, and Gases), and art. 109 (Hazardous Substances and Processes), and sec. 5198 (Lead)]; and

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

(3) A universal waste handler who does not conduct further treatment on PV modules pursuant to section 66273.73 or send or take PV modules to another universal waste handler for treatment pursuant to section 66273.73 shall:

(A) Ensure that the PV modules are recycled or disposed of as required by this section; and

(B) Ensure that for disposal at a permitted hazardous waste disposal facility:

1. Be deemed the generator of hazardous waste PV modules;

2. Manage the PV modules as hazardous waste in accordance with all applicable requirements of chapters 12 through 16, 18, 20, and 22 of this division; and

3. Notify the Department in accordance with 66273.74 (a)(5).

Note: Authority cited: Sections 25141, 25141.5, 25143.2, 25150, 25173, 25201, 25214.6, 25214.9, 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~~, and 25259, Health and Safety Code.

Amend 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.

(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.

(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/draining activities authorized by section 66273.72, and using only one or more of the methods allowed pursuant to subsection (d~~e~~) of this section.

(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.

(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 and the disassembling/draining activities authorized in section 66273.72, and using only one or more of the methods allowed pursuant to subsection (d~~e~~) of this section.

(b) Treating CRTs and/or CRT glass.

A universal waste handler described in subsection (b)(1) of this section shall be deemed authorized by the Department to conduct the activities identified in subsection (b)(2) of this section, provided the universal waste handler complies with the requirements specified in subsections (b)(2) and (b)(3) of this section.

(1) The universal waste handler treats CRTs, breaking the CRTs' glass.

(2) The universal waste handler treats CRTs by: conducting activities other than, or in addition to, the disassembling/ draining activities authorized by section 66273.72,

subsections (b) or (c); and using only one or more of the methods allowed pursuant to subsection (d) of this section.

(c) Treatment of PV modules.

(1) A universal waste handler described in subsection (c)(1)(A) and (c)(1)(B) of this section shall be deemed authorized by the Department to conduct the activities identified in subsection (c)(3) of this section, provided the universal waste handler complies with the requirements specified in subsections (c)(3) and (c)(4) of this section.

(A) The universal waste handler treats PV modules by intentionally breaking the PV modules (e.g., glass).

(B) The universal waste handler treats 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 residuals that exhibit a hazardous waste characteristic described in article 3 of chapter 11 of this division when managed pursuant to section 66273.75, subsection (c) and meet the following criteria:

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.

(2) A universal waste handler described in subsection (c)(2)(A) and (c)(2)(B) of this section shall be deemed authorized by the Department to conduct the activities identified in subsection (c)(3) of this section, provided the universal waste handler complies with the requirements specified in subsections (c)(3) and (c)(4) of this section.

(A) The universal waste handler treats PV modules by intentionally breaking the PV modules (e.g., glass).

(B) The universal waste handler treats 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 residuals that exhibit a hazardous waste characteristic described in article 3 of chapter 11 of this division when managed pursuant to section 66273.75, subsection (c) and meet the following criteria:

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

(3) The universal waste handler treats PV modules by: conducting activities other than, or in addition to, the removal activities authorized in section 66273.71 and the dismantling activities authorized by section 66273.72, subsection (f); and using only one or more of the methods allowed pursuant to subsection (d) of this section.

(4) The universal waste handler complies with all of the following requirements in addition to the requirements of section 66273.33.6, subsection (a)(1):

(A) The notification, annual reporting, and recordkeeping requirements specified in section 66273.74;

(B) The standards specified in section 66273.75;

(C) The closure plan and financial requirements specified in section 66273.76; and

(D) When applicable, the closure requirements specified in section 66273.77.

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

(1) Except as otherwise provided in subsection (de)(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)~~, and/or (c) of this section:

(A) Physical treatment that changes only the physical properties of electronic devices, PV modules, residual printed circuit boards, and/or CRTs, 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);

(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;

(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40 C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no more than 250 kg (one sample) is subject to thermal assay per 24 hour period;

(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of this chapter; and

(F) Physical separation of CRT panel glass from CRT funnel glass for the management of CRT panel glass in accordance with section 25143.2.5 of the Health and Safety Code.

(2) Any treatment activity identified subsection (de)(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.

(B) Except as specifically provided in subsection (de)(1)(D), the onsite treatment of the residuals resulting from the activities authorized by section 66273.73, subsection (a)(1), ~~or (a)(2)~~, (c)(1), or (c)(2).

(C) The treatment of electronic devices containing PCBs, a medical waste, a radioactive material, a reactive material, or an ignitable material.

~~(d)~~(e)(1) Notwithstanding subsections (a)(1)(B), (a)(2)(B), ~~and (b)(2)~~, and (c)(3) of this section, the authorizations provided in this section shall not be required for a handler

who recycles scrap metal, including printed circuit boards produced by an authorized handler.

(2) As used in this subsection, “printed circuit boards produced by an authorized handler” means residual printed circuit boards that a handler has:

(A) derived from electronic devices or PV modules by completing treatment authorized under this article,

(B) containerized and labeled pursuant to section 66273.75, subsection (b), and

(C) subsequent to the authorized treatment, 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).

Note: Authority cited: Sections 25141, 25141.5, 25143.2.5, 25150, 25201, 25214.9, 25219.1, 25259, and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25143.2.5, 25150, 25159.5, 25201, 25212, 25214.9, 25219, 25219.1, ~~and 25219.2~~, and 25259, Health and Safety Code.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.74 to read:

§ 66273.74. Notification, Annual Reporting, and Recordkeeping.

(a) Notification.

(4) Universal waste handlers of PV modules.

A universal waste handler who intends to treat PV modules pursuant to this article shall submit to the Department at the address provided in subsection (f) of this section, a written notification containing the following information no later than 30 calendar days prior to treating any PV modules:

(A) Name of the 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)(4)(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 the source(s) of PV modules (e.g., residential collection(s), other collector(s), etc.);

(H) Type(s) of PV modules expected to be treated, if known (e.g., crystalline silicon, thin film, etc.);

(I) A description of the treatment process(es) to be used; and

(J) 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.

(5) A universal waste handler who makes a determination to dispose of PV modules pursuant to subsection (f)(3)(B) of section 66273.72 of this chapter, shall submit to the Department, at the address provided in subsection (f) of this section, a written notification containing the following information no later than 15 calendar days after determining that the PV modules are destined for disposal:

(A) The ID number for the universal waste handler's facility where the PV modules were generated;

(B) A description of the authorized treatment method(s) used to generate the PV modules to be disposed of; and

(C) The name, address, and ID number of the hazardous waste disposal facility where the PV modules will be disposed of.

(b) Annual reporting.

(3) Universal waste handlers of PV modules.

Except as otherwise provided in section 66273.71, a universal waste handler who treated any PV module pursuant to this article in a calendar year shall, by February 1 of the following year, submit to the Department at the address provided in subsection (f) of this section, a written annual report containing the information specified in subsection (b)(3)(A) through (b)(3)(K) of this section.

(A) Name, mailing address (and physical address, including county, if different from the mailing address), and telephone number of the universal waste handler;

(B) A description of the facility;

(C) Name and mailing address of the organization (as authorized to transact business in California) that owns and/or operates the facility;

(D) Name, title, telephone number, and e-mail address (if available) of the contact person at the universal waste handler's physical address who should be contacted regarding universal waste management activities at the location;

(E) Facility ID Number, if issued;

(F) Number of days the facility operated;

(G) Type(s) of PV modules treated at the facility, if known (e.g., crystalline silicon, thin film, etc.);

(H) Treatment method(s) used for PV modules treated at the facility;

(I) The total quantity (count or weight) of PV modules treated during the previous calendar year;

(J) A list consisting of:

1. The name, address, and telephone number for each of the locations to which the universal waste handler shipped PV modules, scrap metal, and/or exempt materials during the previous calendar year.

2. The total number (count or weight) of PV modules shipped to that location during the previous calendar year, including in this case a declaration of whether that location is a glass manufacturer, a reclamation facility, or a destination facility; and

(K) Whenever necessary, a universal waste handler who utilizes a mass-based inventory system to quantify PV modules and PV module residuals may convert mass data to count data through application of an appropriate conversion factor (e.g., 40 pounds per PV module) to fulfill the annual reporting requirement of this subsection (b)(3). A universal waste handler who performs such a data conversion(s) shall indicate that the count data were derived from mass data and shall include the conversion factor(s) used in the annual report.

(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.

(A) Except as otherwise provided in sections 66273.71, 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:

1. A copy of the notification submitted to the Department as required by subsection (a)(4) of this section;
2. A copy of the notification submitted to the Department as required by subsection (a)(5) of this section;
3. A copy of the most recent annual report submitted to the Department as required by subsection (b) of this section, beginning no later than February 1 of the year following the most recent calendar year during which the universal waste handler treated any PV modules at the universal waste handler's facility pursuant to this article; and
4. A current copy of any local air district permit and/or other relevant permit(s) 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.

(B) The universal waste handler shall make available the relevant documents identified in subsection (c)(3)(A) of this section at the universal waste handler's facility upon request, to any representative of the Department, U.S. EPA, or a local governmental agency having jurisdiction over the facility.

(C) The universal waste handler shall either deliver in person or send to the Department by certified mail, return receipt requested, a copy of any relevant document identified in subsection (c)(3)(A) of this section upon receipt of a written request from the Department. The Department shall specify in its written request all of the following: the identities of the documents for which copies are required; the place where those copies shall be delivered or sent; and the date by which those copies shall be submitted.

(e)(1) If submitted electronically, notifications and annual reports required pursuant to subsections (a) and (b) of this section shall be addressed to the Department at <https://www.dtsc.ca.gov>. For electronic notifications and annual reports made pursuant to this section, the universal waste handler signature required by subsection (d) of this section shall be submitted to the address provided in subsection (f) of this section.

(2) A person that has provided written submissions of any of the Department notifications and annual reports required pursuant to subsections (a) and (b) of this section is not required to submit the same information electronically.

(3) If the Department's universal waste web-based reporting system is not available or cannot accommodate electronic submissions for any of the Department notifications and annual reports required pursuant to subsections (a) and (b) of this

section the handler shall provide written submissions in accordance with subsection (f).

(f)(1) If submitted in writing, notifications and annual reports required pursuant to subsections (a) and (b) 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.

(2) A person that has provided electronic submissions of any of the Department notifications and annual reports required pursuant to subsections (a) and (b) of this section through the Department's universal waste web-based reporting system in accordance with subsection (e) of this section is not required to submit the same information in writing.

Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.6, 25214.9, 26219.1, ~~and 58012, and 25259~~ Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25179.6, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1, ~~and 25219.2, and 25259~~, Health and Safety Code.

Amend 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,~~ and/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 (de) for electronic devices, residual printed circuit boards, CRTs, and/or PV modules;
- (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;

(10) Not accept for treatment, any electronic devices ~~or,~~ PV modules, or CRTs that are managed, or that are required to be managed, as hazardous wastes pursuant to chapters 10 through 16, 18, 20 and 22 of this division, unless authorized to do so pursuant to a hazardous waste facility permit or other authorization granted by the Department pursuant to those chapters.

(b) Containment of residuals.

- (1) The universal waste handler shall manage all residuals produced from treating electronic devices, residual printed circuit boards, PV modules, and/or CRTs, in a manner that prevents a release to the environment of any universal waste or any component or constituent thereof, as follows:
- (2) Contain any residuals that are produced from treating electronic devices, residual printed circuit boards, PV modules, and/or CRTs, 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, PV module, and/or CRT 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, PV modules, and/or CRTs, and prevent releases under reasonably foreseeable conditions.

(d) Worker safety.

(1) A universal waste handler, who treats electronic devices, residual printed circuit boards, PV modules, and/or CRTs, 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, PV modules, and/or CRTs, 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, Mists, Vapors and MistsGases), 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, PV modules, and/or CRTs 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.

Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.9, 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, 25214.9, 25219, 25219.1, ~~and 25219.2~~, and 25259, Health and Safety Code; Sections 42479, Public Resources Code.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.76 to read:

§ 66273.76. Closure Plan and Financial Requirements.

(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), and (c),~~ 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:

(1) Closure plan

(4) Universal waste handlers who notify the Department pursuant to section 66273.74, subsection (a), of their intent to conduct one or more of the treatment activities described in section 66273.73, subsections (a)(2), ~~and (b), and (c)~~ ~~on or before [OAL to insert effective date of these regulations]~~ shall submit the closure plan required by subsection (a)(1) of this section when they submit the notification ~~on or before December 31, 2008.~~

(b)(1) Cost estimate for closure.

(5) Notwithstanding subsection (b)(2) of this section, universal waste handlers who notify the Department pursuant to section 66273.74, subsection (a), of their intent to conduct one or more of the treatment activities described in section 66273.73, subsections (a)(2), ~~and (b), and (c),~~ ~~on or before [OAL to insert the effective date of these regulations],~~ shall submit a ~~revised~~ cost estimate for closure as required by this subsection when they submit the notification ~~on or before December 31, 2008.~~

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,~~ and 25259, Health and Safety Code.

Amend Title 22, division 4.5, chapter 23, article 7, section 66273.77 to read:

§ 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), or (c)~~, shall:

(1) Submit to the Department in the manner and at the address given in subsections (c) and (d) of this section, a notification containing the following information:

(A) The date of the last day on which the universal waste handler intends to conduct the treatment activities specified in section 66273.73, subsection (a)(2), ~~or (b), or (c)~~;

(B) The date of the last day on which the universal waste handler intends to conduct handling activities other than the treatment activities specified in section 66273.73, subsection (a)(2), ~~or (b), or (c)~~ at the facility, if applicable; and

(C) The date the universal waste handler intends to complete the closure activities described in the handler's closure plan and/or, if applicable, vacate the facility.

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~~, and 25259, Health and Safety Code.