			waste wanagement j Proposed Regulation Text R-2017-
1			
2	TEXT OF PROPOSED REGULATIONS		
3	Photovoltaic modules (PV modules) – Universal Waste Management		
4	Department Reference Number: R-2017-04		
5	Office of	f Administrative Lav	v Notice File Number: Z-2019-0409-04
6	-		
7	Di	VISION 4.5, TITLE 22, C	CALIFORNIA CODE OF REGULATIONS
8 9	Legendu Amender	anto ara ahawa fram	the evicting text of the Colifornia Code of
9 10	Regulations, title 2		the existing text of the California Code of
11	Regulations, title 2	-2, 83.	
12			
13			
14	First Public Avail	lability Dates:	April 19, 2019 – June 10, 2019
15		l la deulia e teort ne	flante recever to strange and in Ameril 2010
16 17	Underline:	<u>Underline</u> text re	flects new text proposed in April 2019.
18	Strikeout:	Strikeout text ref	lects deleted text proposed in April 2019.
19	on mooun	Clintoodt toxt for	
20	Second Public A	vailability Dates:	September 9, 2019 – September 24, 2019
21		-	
22	Double-Underline		ed text reflects new text resulting from post-
23	hearing changes p	proposed in Septemb	er 2019.
24 25	Double-Strikeout	· Doublo-strikoout	text reflects deleted text resulting from post-
26		proposed in Septemb	•
27	ger in the second s		
28	Third Public Avai	ilability Dates: O	ctober 18, 2019 – November 2, 2019
29			
30	Underline:		derline text reflexts new text resulting from
31 32	additional post-nea	aring changes propos	sed in October 2019.
33	Strikeout:	bold. italic. stri	<b>keout</b> text reflects deleted text resulting from
34		aring changes propos	
35	·	0 0 1 1	
36	***	Existing text (no	t shown) continues unchanged
37			
38			
39 40			
41			
42			
43			
44			
45			
46			

1 2	Amend Title 22, division 4.5, chapter 10, article 2, section 66260.10 to read:
3	§ 66260.10. Definitions.
4 5	When used in this division, the following terms have the meanings given below:
6 7	***
8 9	"Personnel" or "facility personnel" means all persons who work, at, or oversee the
10 11 12	operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of this division.
13 14	"Photovoltaic cell" means a specialized semiconductor diode designed to convert solar radiation into electrical energy. Photovoltaic cells are individual cells that are not
15 16 17	<u>electrically connected or an integral part of photovoltaic modules that are electrically</u> <u>connected</u> . Photovoltaic cells are also commonly referred to as solar cells. <u>Photovoltaic</u>
17 18	<u>cells are managed as photovoltaic modules.</u>
19 20	<u>"Photovoltaic module integrated device" means a device with a photovoltaic module embedded or attached, for which the photovoltaic module is not intended</u>
21	to be removed or replaced as part of the normal use and operation of the device,
22	<u>and is intended for personal or household use or adornment (e.g. garden lights,</u>
23 24	<del>backpacks, luggage).</del>
25	"Photovoltaic module" means a device consisting of <i>or containing</i> one or more
26	electrically connected photovoltaic cells that are protected, such as in glass, and
27	designed to convert solar radiation into electrical energy. Photovoltaic module includes
28	any ancillary integrated components that cannot be separated without breaking the
29	photovoltaic module glass Examples of integrated components include, but not
30	<i>limited to, such as protective glass, conductive metal contact, metal framinges the</i>
31	photovoltaic cells, housing or pocket holding the photovoltaic cells/modules, and
32	top and back layerused to support the module, junction boxes, batteries, inverters,
33	wires, and cables that are connected to and are part of the photovoltaic module. Types
34	of pPhotovoltaic modules are composed of include, but are not limited to,
35	monocrystalline silicon-photovoltaic modules, polycrystalline silicon-photovoltaic
36	modules, amorphous silicon-photovoltaic modules, cadmium telluride-photovoltaic
37	modules, copper indium gallium selenide photovoltaic modules, and gallium indium
38	phosphide/gallium arsenide/gallium, and perovskite-photovoltaic modules. Photovoltaic
39	modules are also commonly referred to as photovoltaic panels or solar panels.
40	Photovoltaic cells that are not electrically connected are managed as photovoltaic
41	modules.
42	
43	<u>"Photovoltaic system" means a set of components consisting of one or more</u>
44	photovoltaic modules and includes any ancillary components that can be manually
45	separated without breaking the photovoltaic module glass such as, but not limited to,
46	metal frames used to support the photovoltaic module, connectors, junction boxes.

1 batteries, inverters, wires, and cables that are connected to the photovoltaic module. 2 Photovoltaic systems are also commonly referred to as solar systems. *Photovoltaic* 3 system excludes photovoltaic module integrated devices. 4 5 "Photovoltaic panel" see "photovoltaic module." 6 7 "Physical parameter" means any measurable physical characteristic of a substance 8 including, but not limited to, temperature, electrical conductivity, pH and specific gravity. 9 10 \*\*\* 11 12 13 "Publicly owned treatment works" or "POTW" means any device or system used in the 14 treatment (including recycling and reclamation) of municipal sewage or industrial wastes 15 of a liquid nature which is owned by a "State" or "municipality" (as defined by 33 U.S.C. 16 section 1362). This definition includes sewers, pipes or other conveyances only if they 17 convey wastewater to a POTW providing treatment. 18 19 "PV cell" see "photovoltaic cell." 20 21 <u>"PV module integrated device" see "photovoltaic module integrated device."</u> 22 23 "PV module" see "photovoltaic module." 24 25 "PV system" see "photovoltaic system." 26 27 "R chart" (Range chart) means a control chart for evaluating the variability within a 28 process in terms of the subgroup range R. 29 30 "RCRA Characteristic" means the characteristic of ignitability, corrosivity, reactivity, or 31 toxicity identified in sections 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23, and 32 66261.24(a)(1) of this division. 33 34 35 \*\*\* 36 37 38 "Schedule of compliance" means a schedule of remedial measures included in a permit 39 or order, including an enforceable sequence of interim requirements (for example, 40 actions, operations or milestone events) leading to compliance with applicable law. 41 42 "Scrap metal" means (a) any one or more of the following, except as provided in 43 subsection (b) of this section: 44 (1) Manufactured, solid metal objects and products; 45 (2) Metal workings, including cuttings, trimmings, stampings, grindings, shavings 46 and sandings;

1 2 3 4	<ul> <li>(3) Solid metal residues of metal production; or</li> <li>(4) Printed circuit boards that are recycled [except for printed circuit boards referenced in subsec. (b)(7) of this section].</li> <li>(b) "Scrap metal" excludes all of the following:</li> </ul>
5 6	<ul> <li>(1) lead-acid storage batteries, waste elemental mercury, and water-reactive metals such as sodium, potassium and lithium;</li> </ul>
7 8	(2) magnesium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing independent combustion;
9 10	(3) beryllium borings, trimmings, grindings, shavings and sandings and any other forms capable of producing adverse health effects or environmental harm in the
11 12 13	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
14 15 16	11 of this division; (5) any metal contaminated with an oil that is a hazardous waste and that is free- flowing;
17 18	(6) sludges, fine powders, semi-solids and liquid solutions that are hazardous wastes; and
19 20	(7) any printed circuit board that has been removed from a universal waste electronic device or <u>PV module</u> by a universal waste handler as a result of the
21 22 23 24	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.
25 26 27	"Semitrailer" means a vehicle designed for carrying persons, property or waste, used in conjuction 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.
28 29 30	***
30 31 32 33	"Soil-pore liquid" means the liquid contained in openings between particles of soil in the unsaturated zone.
34 35	"Solar cell" see "photovoltaic cell."
36 37	<u>"Solar panel" see "photovoltaic module."</u>
38 39	<u>"Solar system" see "photovoltaic system."</u>
40 41 42 43 44 45	"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.
45 46	***

1

- 2 Note: Authority cited: Sections 25141, 25150, 25158.1, 25158.4, 25159, 25159.5,
- 3 25187.7, 25200.10, 25204, 25214.9, 25218.3(d), 25200.21, 25245, <u>25259, 25316</u>,
- 4 25355.5, 25356.9, 25358.9, 58004, and 58012, Health and Safety Code; Governor's
- 5 Reorganizational Plan #1 of 1991; and Section 42475.1, Public Resources Code.
- 6 Reference: Sections 25110.02, 25110.1, 25110.5, 25111, 25112, 25112.5, 25113,
- 7 25114, 25115, 25117, 25117.1, 25117.3, 25117.8, 25117.9, 25117.11, 25118, 25119,
- 8 25120, 25121, 25121.5, 25122.7, 25123, 25123.3, 25123.5, 25123.6, 25141, 25150,
- 9 25158.2, 25159, 25159.5, 25187.7, 25200.10, 25201.6, 25204, 25214.9, 25218.1(f),
- 10 25218.3, 25200.1, 25229, 25245, <u>25259, 25316</u>, 25354(b), 25355.5, 25355.6, 25356.9,
- 11 25358.1, 25358.9, 25359.8, 25361, 25501, 25529, and 58012, Health and Safety Code;
- 12 and 40 CFR Sections 260.10, 261.1, 262.21, 264.551, 264.1031, 268.2, 270.2, and
- 13 273.6.

1	Amend Title 22, division 4.5, chapter 11, article 1, section 66261.9 to read:
2 3	§66261.9. Requirements for Universal Waste.
4 5 6 7 8	(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
9	regulation pursuant to chapter 23 and shall be known as "universal wastes."
10	(1) Batteries, as described in section 66273.2, subsection (a);
11 12 13	<ul> <li>(2) Electronic devices, as described in section 66273.3, subsection (a);</li> <li>(3) Mercury-containing equipment, as described in section 66273.4, subsection (a);</li> <li>(4) Lamps, as described in section 66273.5, subsection (a) (including, but not limited)</li> </ul>
14	to, M003 wastes);
15 16 17 18	<ul> <li>(5) Cathode ray tubes, as described in section 66273.6, subsection (a);</li> <li>(6) Cathode ray tube glass, as described in section 66273.7, subsection (a); and</li> <li>(7) Aerosol cans, as specified in Health and Safety Code section 25201.16; and</li> <li>(8) Photovoltaic modules, as described in section 66273.7.1, subsection (a).</li> </ul>
19	(b) Unless specified otherwise in section 66273.60, universal wastes shall be managed
20	as hazardous wastes pursuant to chapters 10 through 16, 18, and 20 through 22 of this
21	division upon arrival at a destination facility.
22	
23 24	Note: Authority cited: Sections 25141, 25150, 25150.6, 25201, 25214.9, 25214.10.1,
25	25219.1, 25259, and 58012, Health and Safety Code; and Section 42475.2, Public
26 27	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;
28	40 CFR Section 261.9.
29 30	
30 31	
32	
33	
34	
35	
36	
37	
38 39	
39 40	
40 41	
42	
43	
44	
45	
46	

**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. 

1	Add Title 22, division 4.5, chapter 23, article 1, section 66273.7.1 to read:
2 3	§66273.7.1. Applicability — PV modules.
4	<u>souristri Applicability — 1 v modules.</u>
5	<u>(a) PV modules covered pursuant to chapter 23:</u> -
6	(1) The requirements of this chapter apply to PV modules, as defined in section
7	66273.9, except PV modules listed in subsection (b) of this section; and
8	(2) Discarded PV modules that are hazardous solely because the modules exhibit
9	the characteristic of toxicity specified in section 66261.24.
10	(b) PV modules not covered pursuant to chapter 23. The requirements of this chapter
11	do not apply to the following PV modules:
12	(1) PV modules that are not yet wastes pursuant to chapter 11 of this division.
13	Subsection (c) of this section describes when PV modules become wastes;
14	(2) PV modules that do not exhibit a characteristic of a hazardous waste as set forth
15	in article 3 of chapter 11 and that are not otherwise identified as hazardous waste
16	pursuant to chapter 11 of this division;
17	(3) PV modules that exhibit any characteristic of a hazardous waste other than the
18	characteristic of toxicity. Such PV modules shall be managed as hazardous wastes
19	pursuant to chapters 10 through 16, 18, and 20 through 22 of this division;
20	(4) PV modules that are destined for recycling (or are recycled) by being "used in a
21	manner constituting disposal," as described in section 66266.20. Such PV modules
22	shall be managed as hazardous waste pursuant to chapters 10 through 16, 18, and
23	20 through 22 of this division;
24	(5) Except as otherwise provided in section 66273.72 of this chapter, PV modules
25	that are destined for disposal at a permitted hazardous waste disposal facility. =Such
26	PV modules shall be managed as hazardous wastes pursuant to chapters 10
27	through 16, 18, and 20 through 22 of this division;
28	(6) PV modules that are managed as hazardous wastes pursuant to chapters 10
29	through 16, 18, and 20 through 22 of this division; and
30	(7) PV modules that were previously identified as waste pursuant to chapter 11, but
31	are no longer identified as a waste (e.g., discarded PV modules that are refurbished
32	and are returned to service).; and
33	(8) <u>PV module integrated devices that are not an electronic device. If such</u>
34	devices exhibit a characteristic of a hazardous waste as set forth in article 3 of
35	<u>chapter 11, they are regulated as hazardous waste pursuant to chapters 10</u>
36	through 16, 18, and 20 through 22 of this division.
37	(c8) PV modules that are integrated into the structure of an electronic devices as
38	<u>defined in section 66273.9 (e.g., calculators)</u> <u>= shall be managed as an electronic device.</u>
39	( <u>d</u> e) Generation of waste PV modules.
40	(1) A used PV module becomes a waste on the date it is discarded.
41	(2) Unused PV modules.
42 43	(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
43 44	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
44 45	date that it becomes a recyclable material pursuant to subsection (e) of the
45	definition of "recyclable materials" in section 66260.10.
-10	

1	(ed) A respondent in an action to enforce regulations in this division who claims that a
2	PV module is not a waste bears the burden of demonstrating that there is a known
3	market or disposition for its use as a PV module.
4	
5	NOTE: Authority cited: Sections 25141, 25150, 25214.6, 25159, and 58012, Health and
6	Safety Code. Reference: Sections 25141, 25150, and 25259, Health and Safety Code.
7	

1 **Amend** Title 22, division 4.5, chapter 23, article 1, section 66273.9 to read: 2 3 § 66273.9. Definitions. 4 5 When used in this chapter, the terms listed in this section have the meaning given 6 below. Unless otherwise specified, listed terms that cross-reference the definitions of 7 other terms refer to the definitions set forth in this section for those other terms. Terms 8 that are also defined in chapter 10 of this division are duplicated here solely for 9 convenience of the regulated community. Terms used in this chapter that are not 10 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. 11 12 \*\*\* 13 14 15 "Onsite" means the same or geographically contiguous property which may be divided 16 by public or private right-of-way, provided that the entrance and exit between the 17 properties is at a cross-roads intersection, and access is by crossing as opposed to 18 going along the right-of-way. Non-contiguous properties owned by the same person but 19 connected by a right-of-way which the person controls and to which the public does not 20 have access, are also considered onsite property. 21 22 "Photovoltaic cell" means a specialized semiconductor diode designed to convert solar 23 radiation into electrical energy. Photovoltaic cells are individual cells that are not 24 electrically connected or an integral part of PV modules that are electrically connected. 25 Photovoltaic cells are also commonly referred to as solar cells. Photovoltaic cells are 26 managed as photovoltaic modules. 27 28 "Photovoltaic module integrated device" means a device with a photovoltaic 29 module embedded or attached, for which the photovoltaic module is not intended 30 to be removed or replaced as part of the normal use and operation of the device, 31 and is intended for personal or household use or adornment (e.g. garden lights, 32 backpacks, luggage). 33 34 "Photovoltaic module" means a device consisting of one or more electrically connected 35 photovoltaic cells that are protected, such as in glass, and designed to convert solar *radiation* into electrical energy. Photovoltaic module includes any ancillary integrated 36 37 components that cannot be separated without breaking the photovoltaic module glass. Examples of integrated components include, but not limited to, such as 38 protect *iveed* glass, conductive metal contact, metal framinges the photovoltaic cells, 39 housing or pocket holding the photovoltaic cells/modules, and top and back layer. 40 41 used to support the module, junction boxes, batteries, inverters, wires, and cables that are connected to and are part of the photovoltaic module. Types of pPhotovoltaic 42 modules are composed of include, but are not limited to, monocrystalline silicon 43 44 photovoltaic modules, polycrystalline silicon-photovoltaic modules, amorphous silicon photovoltaic modules, cadmium telluride photovoltaic modules, copper indium gallium 45 selenide-photovoltaic modules, and gallium indium phosphide/gallium arsenide/gallium, 46

1	and perovskite photovoltaic modules. Photovoltaic modules are also commonly referred		
2	to as photovoltaic panels or solar panels. Photovoltaic cells that are not electrically		
3	connected are managed as photovoltaic modules.		
4			
5	<u>"Photovoltaic panel" see "photovoltaic module."</u>		
6			
7	"Photovoltaic system" means a set of components consisting of one or more		
8	photovoltaic modules and includes any ancillary components that can be manually		
9	separated without breaking the photovoltaic module glass such as, but not limited to,		
10	metal frames used to support the photovoltaic module, connectors, junction boxes,		
11	batteries, inverters, wires, and cables that are connected to the photovoltaic module.		
12	Photovoltaic systems are also commonly referred to as solar systems. <i>Photovoltaic</i>		
13	system excludes photovoltaic module integrated devices.		
14 15	"Dressure ar vesuum geuge" meene anv devise in which pressure ar vesuum is		
15	"Pressure or vacuum gauge" means any device in which pressure or vacuum is		
16 17	measured using the height of a column of liquid mercury. "Pressure or vacuum gauge"		
17 10	includes, but is not limited to, barometers, manometers, and sphygmomanometers.		
18 19	"Producer" see "Generator."		
20	Floducer see Generator.		
20 21	"PV cell" see "photovoltaic cell."		
22			
23	"PV module integrated device" see "photovoltaic module integrated device."		
24	<u>I V module integrated device see protovoltale module integrated device.</u>		
25	"PV module" see "photovoltaic module."		
26			
27	<u>"PV system" see "photovoltaic system."</u>		
28			
29	"Scrap metal" means (a) any one or more of the following, except as provided in		
30	subsection (b) of this section:		
31	(1) Manufactured, solid metal objects and products;		
32	(2) Metal workings, including cuttings, trimmings, stampings, grindings, shavings		
33	and sandings;		
34	(3) Solid metal residues of metal production; or		
35	(4) Printed circuit boards that are recycled [except for printed circuit boards		
36	referenced in subsec. (b)(7) of this section].		
37	(b) "Scrap metal" excludes all of the following:		
38	(1) lead-acid storage batteries, waste elemental mercury, and water-reactive		
39	metals such as sodium, potassium and lithium;		
40	(2) magnesium borings, trimmings, grindings, shavings and sandings and any		
41	other forms capable of producing independent combustion;		
42	(3) beryllium borings, trimmings, grindings, shavings and sandings and any other		
43	forms capable of producing adverse health effects or environmental harm in the		
44	opinion of the Department;		

1	(4) any metal contaminated with a hazardous waste, such that the contaminated
2 3	metal exhibits any characteristic of a hazardous waste under article 3 of chapter 11 of this division;
4	(5) any metal contaminated with an oil that is a hazardous waste and that is free-
5	flowing;
6	(6) sludges, fine powders, semi-solids and liquid solutions that are hazardous
7	wastes; and
8	(7) any printed circuit board that has been removed from a universal waste
9	electronic device <u>or PV module</u> by a universal waste handler as a result of the
10	handler's conduct of activities authorized by sections 66273.71, 66273.72, and/or
11	66273.73 of chapter 23 of this division and is subject to management as a
12	hazardous waste pursuant to sections 66273.71, 66273.72, and/or 66273.73.
13 14	"Color coll" and "photovoltais coll "
14 15	<u>"Solar cell" see "photovoltaic cell."</u>
16	<u>"Solar panel" see "photovoltaic module."</u>
17	
18	<u>"Solar system" see "photovoltaic system."</u>
19	
20	"Thermometer" means any thermometer that uses the expansion and contraction of a
21	column of mercury to measure temperature.
22	
23	***
24	
25	Note: Authority cited: Sections 25141, 25141.5, 25150, 25214.6, 25150.6, 25201,
26	25214.9, 25219.1, <u>25259</u> , and 58012, Health and Safety Code; and Section 42475, Public Resources Code, Reference: Sections 25141, 25141, 5, 25150, 25150, 5, 25201
27 28	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
28 29	Code; 40 CFR Sections 261.4, 261.5 and 273.9.
29 30	

1	Amend Title 22, division 4.5, chapter 23, article 3, section 66273.31 to read:
2 3 4	§66273.31. Prohibitions.
5 6	A universal waste handler is:
7 8 9 10 11	(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
12 13 14	(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.
15 16 17 18	Note: Authority cited: Sections 25141, 25150, 25219.1 <u>, 25259,</u> and 58012, Health and Safety Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1 <u>,</u> and 25219.2 <u>, and 25259,</u> Health and Safety Code; 40 CFR Section 273.31.
19 20 21	
21	
22 23	
23 24	
24 25	
23 26	
20 27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44 45	
45	
46	

1 Amend Title 22, division 4.5, chapter 23, article 3, section 66273.32 to read: 2 3 § 66273.32. USEPA Notification, Department Notification, and Reporting 4 **Requirements for Universal Waste Handlers.** 5 6 (a) USEPA notification requirements. 7 \*\*\* 8 9 10 (c) Department notification requirements for universal waste handlers of electronic 11 devices, CRTs, and CRT glass. 12 (1) Any universal waste handler who might accept and accumulate, but not treat, any 13 electronic device, CRT, and/or CRT glass from an offsite source shall submit to the 14 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 15 16 (c)(2) of this section no later than 30 calendar days prior to accepting any electronic 17 device, CRT and/or CRT glass. 18 \*\*\* 19 20 (d) Annual reporting requirements for universal waste handlers of electronic devices, 21 CRTs, and CRT glass. 22 (1) A universal waste handler that accepts more than 100 kilograms (or 220 pounds) 23 of electronic devices, CRTs, and CRT glass calculated collectively, from any offsite 24 sources in a calendar year shall, by February 1 of the following year, submit to the 25 Department at the address given in subsection (e) or (f) (g) or (h) of this section, an 26 electronic or written annual report containing the information specified in subsection 27 (d)(3) of this section. The information submitted pursuant to this subsection (d)(1)28 shall cover the electronic-device-handling, CRT-handling, and CRT-glass-handling 29 activities conducted during the previous calendar year. 30 (2) A universal waste handler that generates 5,000 kilograms (or 11,000 pounds; 31 e.g., about 200 CRTs) or more of electronic devices, CRTs, and CRT glass 32 calculated collectively, in a calendar year shall, by February 1 of the following year, 33 submit to the Department at the address given in subsection (e) or (f) (g) or (h) of 34 this section, an electronic or written annual report containing the information 35 specified in subsection (d)(3) of this section. The information submitted pursua ant to 36 this subsection (d)(2) shall: 37 \*\*\* 38 39 (e) Department notification requirements for universal waste handlers of PV modules. 40 (1) Any universal waste handler who might accept and accumulate, but not treat, any 41 PV modules from an offsite source shall submit to the Department, at the address 42 43 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 44 days prior to accepting any PV modules. 45

1	(2) This notification shall include:
2	(A) Name of the universal waste handler (If the facility owner is different than the
3	facility operator, also include the owner's name);
4	(B) ID Number of the universal waste handler, if applicable;
5	(C) Telephone number of the universal waste handler;
6	(D) Mailing address of the universal waste handler, and physical address,
7	including county, if different from the mailing address;
8	(E) Name of the contact person at the universal waste handler's site who should
9	be contacted regarding universal waste management activities;
10	(F) Telephone number of the contact person;
11	(G) An email address for the contact person or organization, if available;
12	(H) The type(s) of PV modules expected to be handled, if known (e.g.,
13	monocrystalline silicon, thin film, etc.);
14	(I) The sources of the PV modules if known (i.e., residential collections, business
15	asset recovery, other collectors, etc.); and
16	(J) A statement indicating whether the universal waste handler might accumulate
17	5,000 kilograms or more of universal waste at one time.
18	(3) Notifications made pursuant to this subsection shall be made for each location at
19	which the universal waste handler accepts or accumulates PV modules from an
20	offsite source, i.e., the handler's facility.
21	(f) Annual reporting requirements for universal waste handlers of PV modules.
22	(1) A universal waste handler that accepts more than 100 kilograms (or 220 pounds)
23	of PV modules from any offsite sources in a calendar year shall, by February 1 of the
24	following year, submit to the Department, at the address given in subsection (h) of
25	this section, a written annual report containing the information specified in
26	subsection (f)(3) of this section. The information submitted pursuant to this
27	subsection shall cover the PV module-handling activities conducted during the
28	previous calendar year.
29	(2) A universal waste handler that generates 5,000 kilograms (or 11,000 pounds) or
30	more of PV modules in a calendar year shall, by February 1 of the following year,
31	submit to the Department, at the address given in subsection (h) of this section, a
32	written annual report containing the information specified in subsection (f)(3) of this
33	section. The information submitted pursuant to this subsection shall identify the PV
34	module-handling activities conducted during the previous calendar year; and
35	(3) This annual report shall include:
36	(A) Name of the universal waste handler (If the facility owner is different than the
37	facility operator, also include the owner's name);
38	(B) ID Number of the universal waste handler, if applicable;
39	(C) Telephone number of the universal waste handler;
40	(D) Mailing address of the universal waste handler, and physical address
41	(including county) if different from the mailing address;
42	(E) Name of the contact person at the universal waste handler's site who should
43	be contacted regarding universal waste management activities;
44	(F) Telephone number of the contact person;
45	(G) An email address for the contact person or organization, if available;

1	(H) The type(s) of PV modules handled, if known (e.g., crystalline silicon, thin
2	<u>film, etc.);</u>
3	(I) The total quantyities of PV modules (count or weight) handled, which
4	include any quantities handled but not shipped during the previous calendar year;
5	(J) A list consisting of:
6	1. The name, address, and telephone number for each of the locations to which
7	the universal waste handler shipped PV modules during the previous calendar
8	<u>year;</u>
9	2. The total quantity of PV modules (count or weight) shipped to each of those
10	locations during the previous calendar year; and
11	3. A description of how each of those locations intended to manage the PV
12	modules, including whether the PV modules were to be recycled or disposed of.
13	(e) (g)(1) Electronic submissions. If submitted electronically through the Department's
14	universal waste web-based reporting system, Department notifications and annual
15	reports required pursuant to subsections (c) and (d) of this section shall be addressed to
16	the Department at https://www.dtsc.ca.gov.
17	(2) A person that has provided written submissions of any of the Department
18	notifications and annual reports required pursuant to subsections (c) or (d) of this
19	section is not required to submit the same information electronically.
20	(3) If the Department's universal waste web-based reporting system is not available
21	or cannot accommodate electronic submissions for any of the Department
22	notifications and annual reports required pursuant to subsections (c) or (d) of this
23	section, the handler shall provide written submissions in accordance with subsection
24	<u>(h).</u>
25	(f)-(h)(1) Written submissions. If submitted in writing, Department notifications and
26	annual reports required pursuant to subsections (c) and (d), or (e) and (f) of this section
27	shall be sent to the Department by certified mail, return receipt requested, at the
28	following address: Department of Toxic Substances Control, Universal Waste
29	Notification and Reporting Staff, P.O. Box 806, Sacramento, CA 95812-0806, with the
30	words "Attention: Universal Waste Handling Activities" prominently displayed on the
31	front of the envelope.
32	(2) A person that has provided electronic submissions of any of the Department
33	notifications and annual reports required pursuant to subsections (c), (d), (e), or (f) of
34	this section through the Department's universal waste web-based reporting system
35	in accordance with subsection (g) of this section is not required to submit the same
36	information in writing.
37	
38	
39	Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1, <u>25259,</u> and
40	58012, Health and Safety Code; and Section 42475, Public Resources Code.
41	Reference: Sections 25141, 25150, 25159.5, 25201, 25214.9, 25219, 25219.1, and
42	25219.2, and 25259, Health and Safety Code; and 40 CFR Section 273.32.
43	

	itle 22, division 4.5, chapter 23, article 3, section 66273.33.6 to read: 73.33.6 Universal Waste Management Requirements for PV Modules.
	equirements of this section apply only to universal waste handlers of PV modules.
	<u>modules.</u>
	<u>_A universal waste handler of PV modules shall:</u>
	4) Comply with the applicable requirements of sections 66273.30 through
	273.32, and sections 66273.34 through 66273.39, of this article with respect to the
	inagement of PV modules; and
	An age PV modules in a way that prevents releases of any constituent of a PV
	dule to the environment under reasonably foreseeable conditions, as follows:
	1.a.(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.(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
	<u>pallet</u> ) shall be deemed to comply with subsection (a)( $\ge 1$ )( $AB$ )1.a. of this section.
	2.(3) 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
(2)	foreseeable conditions. $\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{$
	Except as otherwise provided in subsection (a)(e3) of this section, a universal stable requirements of article
-	ste handler of PV modules shall comply with the applicable requirements of article
	of this chapter in addition to the requirements of subsection (a)(1) of this section h respect to the PV modules.
	A universal waste handler of PV modules shall be exempt from the
	guirements of article 7 of this chapter with respect to the PV modules if the
	iversal waste handler:
	<ul> <li>4) Manages only PV modules that are intact (except for the occasional PV module)</li> </ul>
	it is accidentally or unintentionally broken and that is managed according to the
	plicable provisions of this chapter);
	Ensures that the intact PV modules remain intact (except for the occasional PV
_	bdule that is accidentally or unintentionally broken and that is managed according the applicable provisions of this chapter) throughout the entire time they are in the
	iversal waste handler's custody; and
	3) Complies with the requirements of section (a)(1) of this section.
Note:	Authority cited: Sections 25141, 25150, 25201,25259, and 58012, Health and
	<sup>2</sup> Code. Reference: Sections 25141, 25150, 25201, and 25259, Health and Safety
Code.	

1	Amend Title 22, division 4.5, chapter 23, article 3, section 66273.34 to read:
2 3 4	§ 66273.34. Labeling/Marking.
5 6 7	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.
8 9 10	***
11 12 13 14 15 16 17	<ul> <li>(f) A container of CRT glass shall be labeled or marked clearly with the following phrase: "Universal Waste-CRT glass".</li> <li>(g) Each-PV modules (i.e., each PV module), or each-a container or pallet in or on which the holding-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)".</li> <li>(g) (h) In lieu of labeling individual electronic devices, CRTs, PV modules, and/or</li> </ul>
18 19 20 21 22 23 24 25 26	containers of CRT glass pursuant to subsections (d) through (f)(fg) 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/Universal Waste-PV module(s)".
27 28 29 30 31 32 33 34 35 36 37 38 39	Note: Authority cited: Sections 25141, 25150, 25201, 25214.6, 25214.9, 25219.1, <u>25259</u> , 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.
40 41 42 43	
44 45 46	

1	Amend Title 22, division 4.5, chapter 23, article 3, section 66273.37 to read:
2 3 4	§ 66273.37. Response to Releases.
5 6 7	(a) A universal waste handler shall immediately contain all releases of universal wastes and of residues from universal wastes to the environment.
8 9 10 11 12 13	(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.
14 15 16 17 18 19 20 21	(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 damanged universal waste is repackaged according to the standards of section 66273.33.
22 23 24 25 26 27 29 30 32 33 35 36 37 38 30 41 42 44 45	Note: Authority cited: Sections 25141, 25150, 25219.1, <u>25259</u> , and 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1, and 25259. Health and Safety Code; 40 CFR Section 273.37.

1	Amend Title 22, division 4.5, chapter 23, article 3, section 66273.39 to read:
2 3 4	§ 66273.39. Tracking Universal Waste Shipments.
4 5 6 7 8 9 10 11 12 13 14 15 16	<ul> <li>(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: <ul> <li>(1) The name and address of the originating universal waste handler from which the universal waste was sent;</li> <li>(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</li> <li>(3) The date of receipt of the shipment of universal waste.</li> </ul> </li> </ul>
17	***
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32	<ul> <li>(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: <ul> <li>(1) The name and address of the universal waste handler or destination facility to which the universal waste was sent;</li> <li>(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, <u>PV modules</u>); and</li> <li>(3) The date of departure of the shipment of universal waste.</li> </ul> </li> </ul>
33 34 35 36 37 38 39 40 41 42 43 44 45 46	Note: Authority cited: Sections 25141, 25150, 25150.6, 25219.1, 25219.2, <u>25259</u> , and 58012, Health and Safety Code. Reference: Sections 25141, 25150, 25159.5, 25219, 25219.1, <del>and</del> 25219.2, <u>and 25259</u> , Health and Safety Code; 40 CFR Section 273.39.

1	Amend Title 22, division 4.5, chapter 23, article 5, section 66273.51 to read:
2 3	Article 5. Standards for Universal Waste Transporters
4 5	§ 66273.51. Prohibitions.
6 7 9 10 11 12 13 14	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
15 16 17 18 19	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)( $12$ )(B).
20 21 22 23 24 25	Note: Authority cited: Sections 25141, 25150, 25150.6, 25201, 25214.9, 25219.1, <u>25259</u> , 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.
26 27 28 29 30	
31 32 33 34 35	
36 37 38	
39 40 41 42	
43 44 45 46	

1 Amend Title 22, division 4.5, chapter 23, article 7, section 66273.70 to read: 2 3 Article 7. Authorization Requirements for Universal Waste Handlers Who Treat 4 **Universal Wastes** 5 6 § 66273.70. Applicability. 7 8 (a) Except as otherwise provided in subsections (b), (c), and (d) of this section, a 9 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 10 11 treatment of that universal waste. 12 (b) Except as otherwise provided in subsection (d) of this section, a universal waste 13 handler who manages a universal waste and its integral components, or the 14 components specified below that the handler has removed from the universal waste, for 15 purposes of recycling it or its component(s) or for the purpose of disposing of CRTs, or 16 CRT glass, or PV modules by performing one or more activities listed in one or more of 17 the three categories given in subsection (c) of this section, shall be deemed authorized 18 by the Department to conduct those activities, provided the universal waste handler 19 complies with the applicable requirements of this article in addition to the applicable 20 requirements of subsection (c) of section 66273.33, and to the applicable requirements 21 of subsections (a)(1), (b)(1), and (c)(1) of section 66273.33.5, and to the applicable 22 requirements of subsection (a)(1) of section 66273.33.6, and to the applicable 23 requirements of article 8 of this chapter. The authorization created by this subsection 24 shall not be deemed to be any of the following: 25 (1) A permit-by-rule; 26 (2) A conditional authorization: or 27 (3) A conditional exemption. 28 (c) Activities eligible for authorization pursuant to subsection (b) of this section are any 29 of the following: 30 (1) Removal activities. Removing user-replaceable components from electronic 31 devices, or PV modules system s, as specified in section 66273.71. 32 (2) Disassembling/draining activities. 33 (A) Removing CRTs from electronic devices, as specified in section 66273.72, 34 subsection (b); 35 (B) Dismantling electronic devices that are not CRT devices and/or removing 36 yokes from CRTs, as specified in section 66273.72, subsection (c); (C) Removing mercury ampules and/or mercury switches from mercury-37 38 containing equipment, as specified in section 66273.72, subsection (d); and/or 39 (D) Draining liquid mercury from pressure or vacuum gauges, as specified in 40 section 66273.72, subsection (e)-; and/or 41 (E) Dismantling PV modules, as specified in section 66273.72, subsection (f). 42 (3) Treatment activities. 43 (A) Treating electronic devices and/or residual printed circuit boards, as specified in section 66273.73, subsection (a); and/or 44

[Phote	ovoltaic modules (PV modules) – Universal Waste Management ] Proposed Regulation Text R-2017-04
1	(B) Treating CRTs and/or CRT glass, as specified in section 66273.73,
2	subsection (b)- <u>; and/or</u>
3	(C) Treating PV modules as specified in 66273.73, subsection (ce).
4 5	
5 6	***
7	
8	Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.6, 25214.9,
9 10	26219.1, <u>25259, and 58012, Health and Safety Code; and Section 42475, Public</u> Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25201, 25212,
11	25214.6, 25214.9, 25219, 25219.1, and 25219.2, and 25259, Health and Safety Code.
12	
13	
14 15	
16	
17	
18	
19 20	
21	
22	
23	
24 25	
26	
27	
28	
29 30	
31	
32	
33	
34 35	
36	
37	
38 20	
39 40	
41	
42	
43	
44 45	
70	

1 Amend Title 22, division 4.5, chapter 23, article 7, section 66273.71 to read: 2 3 § 66273.71. Authorization for Removal Activities. 4 5 (a) Removing user-replaceable components. A universal waste handler, who conducts the activities identified in subsections (b) and 6 (c) of this section on electronic devices, or <u>PV modulessystems</u>, shall be deemed 7 8 authorized by the Department to perform these activities, and is exempt from the 9 requirements of sections 66273.74 through 66273.77, provided the universal waste 10 handler complies with the requirements specified in subsections (b) through (g) of this 11 section. 12 (b) A universal waste handler shall remove only those discrete assemblies, such as 13 batteries or ink cartridges from electronic devices, or batteries, inverters, cables, 14 connectors or diode boxes from PV modules systems, which are typically removed for 15 replacement during the normal operation and maintenance of an electronic device, or 16 PV modulesystem. 17 (c) A universal waste handler shall conduct the removal of the discrete assemblies in 18 the manner that is prescribed in the operating manual for the electronic device, or 19 PV<del>module</del>system, or in a manner that would otherwise reasonably be employed during 20 the normal operation and maintenance of the electronic device, or PV module system. 21 22 \*\*\* 23 24 25 (f)(1) Prior to conducting any subsequent treatment activity authorized by section 26 66273.73 on any residual printed circuit board resulting from removal activities 27 conducted under this section, a universal waste handler shall manage the residual 28 printed circuit board in a manner that prevents a release to the environment by: 29 (A) Containing the residual printed circuit board in a container that is structurally 30 sound and compatible with the residual printed circuit board. 31 (B) Labeling the container with the following phrase: "Residual Printed Circuit 32 Boards," and 33 (C) If the residual printed circuit board is spilled or might reasonably be expected 34 to cause a release to the environment under reasonably foreseeable conditions, 35 cleaning it up and placing it in a container. 36 (2) A universal waste handler who conducts any subsequent treatment activity 37 authorized by section 66273.73 on any residual printed circuit board resulting from 38 removal activities conducted under this section shall comply with section 66273.73, 39 subsections (a)(1), and/or (a)(2), (c)(1), and/or (c)(2), as applicable. 40 (3) A universal waste handler who does not conduct any of the subsequent treatment 41 activities authorized by section 66273.73 on a residual printed circuit board resulting 42 from removal activities conducted under this section shall manage the printed circuit 43 board as prescribed in section 66273.75, subsection (c). 44 \*\*\* 45 46

- 1 Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1, 25259, and
- 2 58012, Health and Safety Code; and Section 42475, Public Resources Code.
- 3 Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.9, 25219, 25219.1,
- 4 and 25219.2, and 25259, Health and Safety Code.

5 6

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.72 to read:
2 3 4	§ 66273.72. Authorization for Disassembling/Draining Activities.
5 6 7	<ul> <li>(a)(1) Universal waste handlers shall not conduct any activity pursuant to this section if the activity involves the use or application of:</li> <li>(A) Chemicals, including water; and/or</li> </ul>
8	(B) External heat.
9 10 11	(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:
12	(A) Be deemed the generator of all residuals that are hazardous waste.
13	(B) For all residuals that are hazardous wastes, comply with all the applicable
14	requirements of chapters 12, 14, 15, 16, 18, 20, 22 and 23 of this division and the
15	applicable notification requirements in Health and Safety Code section 25153.6,
16	except as otherwise provided in subsections (a)(3), (a)(4), (a)(6) or (a)(7) of this
17	section.
18	***
19	
20 21	(f) Dismantling PV modules. A universal waste handler who conducts any of the
22	activities identified in subsection (f)(1) of this section shall be deemed authorized by the
23	Department to do so, provided the universal waste handler complies with the
24	requirements in this subsection.
25	(1) The universal waste handler who dismantles, removes, or otherwise manually
26	segregates, components (e.g., glass panels, metal framinges used to support the
27	photovoltaic cells/modules, housing or pocket holding the photovoltaic
28	<u>cells/modules-module, junction boxes, inverters, wires and cables) of a PV module,</u>
29	but does not break the PV module glass.
30	(2) The universal waste handler shall:
31	(A) Comply with the notification, annual reporting, and recordkeeping requirements
32	specified in section 66273.74, subsections (a)(4) and/or (a)(5), (b)(3), and (c)(3);
33	(B) Ensure that all segregated or removed components resulting from the activities
34	authorized by subsection (f)(1) of this section that meet the definition of scrap
35 26	metal in section 66273.9 are recycled; and $(C)$ Except as provided in subsection (1)(2) of this section, treat the DV modules
36 27	(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
37 38	waste handler for treatment pursuant to section 66273.73; and
39	(D) Conduct the activities in a manner that protects persons managing the PV
40	modules, and that prevents releases of any universal wastes and/or any
41	constituents of the PV modules to the environment under reasonably foreseeable
42	conditions, as follows:
43	1. Dismantle PV modules over or in a designated area (e.g., a concrete surface)
44	sufficient in size and construction to contain any materials from being released to
45	the environment under reasonably foreseeable conditions, and provided the

1	universal waste handler conducts such activities in a manner that prevents
2	breakage of the PV modules=:
3	2. Contain any hazardous residuals produced from dismantling PV modules in a
4	manner that prevents releases of the residuals to the environment under
5	reasonably foreseeable conditions=:
6	3. Immediately clean up and place in a container any PV module that is
7	accidentally or unintentionally broken and that may reasonably be expected to
8	cause a release to the environment under reasonably foreseeable conditions.
9	Such a container shall be structurally sound, be compatible with the contents of
10	the PV module, and prevent releases to the environment under reasonably
11	foreseeable conditions:=
12	<ol> <li>Ensure that persons performing the activities are thoroughly familiar with the</li> </ol>
13	hazards associated with such treatment, have access to the proper procedures
14	and protective equipment necessary to conduct the treatment safely, use such
15	protective equipment if required by any applicable health and safety
16	requirements, and comply with the requirements of this section;.
17	5. Ensure that the facility is operated in compliance with all applicable health and
18	safety laws and regulations [e.g., Cal. Code Regs., tit. 8, ch. 4 (Division of
19	Industrial Safety) subch. 7 (General Industry Safety Orders), group 16 (Control of
20	<u>Hazardous Substances), art. 107 (Dusts, Fumes, Mists, Vapors, and Gases), and</u>
21	art. 109 (Hazardous Substances and Processes), and sec. 5198 (Lead)] <u>: and<del>.</del></u>
22	6. Ensure that the facility maintains aisle spacing in compliance with applicable
23	fire safety code standards in California.
24	(3) A universal waste handler who does not conduct further treatment on PV modules
25	pursuant to section 66273.73 or send or take PV modules to another universal waste
26	handler for treatment pursuant to section 66273.73 shall:
27	(A) Ensure that the PV modules are recycled or disposed of as required by this
28	<u>section; and</u> = (D) <u>Ensure</u> that (Ear dispand at a permitted becardous wasts dispand fasility)
29 30	(B) Ensure that f For disposal at a permitted hazardous waste disposal facility:
30 31	<ol> <li>Be deemed the generator of hazardous waste PV modules;</li> <li>Manage the PV modules as hazardous waste in accordance with all applicable</li> </ol>
32	requirements of chapters 12 through 16, 18, 20, and 22 of this division; and
33	3. Notify the Department in accordance with 66273.74 (a)(5).
34	
35	
36	
37	Note: Authority cited: Sections 25141, 25141.5, 25143.2, 25150, 25173, 25201,
38	25214.6, 25214.9, 25219.1, <u>25259</u> , and 58012, Health and Safety Code; and Section
39	42475, Public Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5,
40	25173, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1, <del>and 2</del> 5219.2, <u>and 25259</u> ,
41	Health and Safety Code.
42	
43	
44	
45	

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.73 to read:
2 3 4	§ 66273.73. Authorization for Treatment (Processing) Activities
5 6 7 8 9 10 11	<ul> <li>(a) Treatment of electronic devices.</li> <li>(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.</li> </ul>
12 13 14 15 16 17 18 19	(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 ( $\underline{de}$ ) of this section.
20	***
21 22 23 24 25 26 27	(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.
28 29 30 31 32 33 34 35 36	(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 ( <u>de</u> ) of this section.
30 37 38 39 40 41 42 43 44 45	<ul> <li>(b) Treating CRTs and/or CRT glass.</li> <li>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.</li> <li>(1) The universal waste handler treats CRTs, breaking the CRTs' glass.</li> <li>(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,</li> </ul>

1	subsections (b) or (c); and using only one or more of the methods allowed pursuant
2	to subsection ( <u>d</u> e) of this section.
3	
4	***
5	
6	(cel) Treatment of PV mModules.
7	(1) A universal waste handler described in subsection (cd)(1)(A) and (c)(1)(B) of this
8	section shall be deemed authorized by the Department to conduct the activities
9	identified in subsection (cd)(32) of this section, provided the universal waste handler
10	<u>complies with the requirements specified in subsections (cd)(32) and (cd)(43) of this</u>
11	section.
12	(A <sup>1</sup> ) The universal waste handler treats PV modules by intentionally breaking the PV
13	modules (e.g., glass).
14	(B) The universal waste handler treats PV modules and/or residual printed circuit
15	boards for which the handler is deemed to be the generator pursuant to sections
16	66273.71 and/or 66273.72 and produces any residuals that exhibit a hazardous
17	waste characteristic described in article 3 of chapter 11 of this division when
18	managed pursuant to section 66273.75, subsection (c) and meet the following
19	<u>criteria:</u>
20	<ol> <li><u>They meet the definition of scrap metal in section 66273.9; or</u></li> </ol>
21	<ol><li><u>They qualify for management as universal wastes pursuant to this chapter.</u></li></ol>
22	(2) A universal waste handler described in subsection (c)(2)(A) and (c)(2)(B) of this
23	section shall be deemed authorized by the Department to conduct the activities
24	<u>identified in subsection (c)(3) of this section, provided the universal waste handler</u>
25	<u>complies with the requirements specified in subsections (c)(3) and (c)(4) of this</u>
26	section.
27	(A) The universal waste handler treats PV modules by intentionally breaking the PV
28	modules (e.g., glass).
29	(B) The universal waste handler treats PV modules and/or residual printed circuit
30	boards for which the handler is deemed to be the generator pursuant to sections
31	66273.71 and/or 66273.72 and produces any residuals that exhibit a hazardous
32	waste characteristic described in article 3 of chapter 11 of this division when
33	managed pursuant to section 66273.75, subsection (c) and meet the following
34	<u>criteria:</u>
35	1. They do not meet the definition of scrap metal in section 66273.9; and
36	2. They do not qualify for management as universal waste pursuant to this
37	<u>chapter.</u>
38	( <u>23</u> ) The universal waste handler treats PV modules by: conducting activities other
39	than, or in addition to, the removal activities authorized in section 66273.71 and the
40	dismantling activities authorized by section 66273.72, subsection (f); and using only
41	one or more of the methods allowed pursuant to subsection ( $\underline{de}$ ) of this section.
42	(43) The universal waste handler complies with all of the following requirements in
43	addition to the requirements of section 66273.33.6, subsection (a)(1):
44	(A) The notification, annual reporting, and recordkeeping requirements specified in
45	<u>section 66273.74;</u>

<ul> <li>(B) The standards specified in section 66273.75;</li> <li>(C) The closure plan and financial requirements specified in section 66273.76; and</li> <li>(D) When applicable, the closure requirements specified in section 66273.77;</li> <li>(de) Electronic device, CRT, <u>PV modules</u>, and residual printed circuit board treatment</li> <li>methods allowed.</li> <li>(1) Except as otherwise provided in subsection (<u>de</u>)(2) of this section, <u>one</u> or more of</li> <li>the following treatment methods is eligible for authorization pursuant to this</li> <li>section, if performed by a universal waste handler described in subsections (a), <u>and/or(b)</u>, <u>and/or(c)</u> of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic</li> <li>devices, <u>PV modules</u>, 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);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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</li> <li>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;</li> <li>(E) 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.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible f</li></ul>
<ul> <li>(C) The closure plan and financial requirements specified in section 66273.76; and (D) When applicable, the closure requirements specified in section 66273.77.</li> <li>(de) Electronic device, CRT, <u>PV modules</u>, and residual printed circuit board treatment methods allowed.</li> <li>(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)<sub>a</sub> and/or.(b), and/or (c) of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic devices, <u>PV modules</u>, 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);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible for authorization pursuant to this article, but is instead subject t</li></ul>
<ul> <li>(D) When applicable, the closure requirements specified in section 66273.77.</li> <li>(ge) Electronic device, CRT, <u>PV modules</u>, and residual printed circuit board treatment methods allowed.</li> <li>(1) Except as otherwise provided in subsection (ge)(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), <u>and/or (b), and/or (c)</u> of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic devices, <u>PV modules</u>, 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);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(2) Any treatment activity identified subsection (ge)(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 divisi</li></ul>
<ul> <li>methods allowed.</li> <li>(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).</li> <li>and/or-(b). and/or (c) of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic devices, <u>PV modules</u>, 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);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(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:</li> </ul>
<ul> <li>(1) Except as otherwise provided in subsection (<u>de</u>)(2) of this section, <u>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)<u>a</u> <del>and/or</del>(b)<u>and/or(c)</u> of this section:</u></li> <li>(A) Physical treatment that changes only the physical properties of electronic devices, <u>PV modules</u>, 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);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(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:</li> </ul>
<ul> <li>the following treatment methods is eligible for authorization pursuant to this</li> <li>section, if performed by a universal waste handler described in subsections (a).</li> <li>and/or (b). and/or (c) of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic</li> <li>devices, <u>PV modules</u>, residual printed circuit boards, and/or CRTs, such as cutting,</li> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or</li> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>section, if performed by a universal waste handler described in subsections (a).</li> <li>and/or (b), and/or (c) of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic</li> <li>devices, <u>PV modules</u>, residual printed circuit boards, and/or CRTs, such as cutting,</li> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or</li> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>mangement of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>and/or (b), and/or (c) of this section:</li> <li>(A) Physical treatment that changes only the physical properties of electronic</li> <li>devices, <u>PV modules</u>, residual printed circuit boards, and/or CRTs, such as cutting,</li> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or</li> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a cordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>(A) Physical treatment that changes only the physical properties of electronic</li> <li>devices, <u>PV modules</u>, residual printed circuit boards, and/or CRTs, such as cutting,</li> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or</li> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>devices, <u>PV modules</u>, residual printed circuit boards, and/or CRTs, such as cutting,</li> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or</li> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> </ul>
<ul> <li>sawing, breaking, shredding, crushing, grinding, screening, sieving, acceleration, or compacting (e.g., screening to separate different particle sizes of the same component);</li> <li>(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);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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</li> <li>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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(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:</li> </ul>
<ul> <li>compacting (e.g., screening to separate different particle sizes of the same</li> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a ccrd panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>component);</li> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>(B) Physical separation based on differences in physical properties such as size,</li> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>color, density, or ferromagnetism (e.g., screening to separate different components</li> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass</li> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>based on differences in their sizes);</li> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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</li> <li>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;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal of CRT panel glass in a 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.</li> <li>(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:</li> </ul>
<ul> <li>(C) Use of a pinpoint torch or hot wire to check (i.e., thermally crack) CRTs for glass separation;</li> <li>(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</li> <li>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;</li> <li>(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</li> <li>(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.</li> <li>(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:</li> </ul>
<ul> <li>separation;</li> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>(D) Sampling, burning (ashing) and ball-milling of samples of electronic devices</li> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>and/or treatment residues thereof [i.e., shredded circuit boards excluded under 40</li> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>C.F.R. sec. 261.4(a)(13)] provided the sample size does not exceed 250 kg, and no</li> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>more than 250 kg (one sample) is subject to thermal assay per 24 hour period;</li> <li>(E) Physical separation of CRT panel glass from CRT funnel glass for the disposal</li> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>d</u>e)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>(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</li> <li>(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.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(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:</li> </ul>
<ul> <li>of CRT panel glass in a CRT panel glass approved landfill pursuant to article 8 of</li> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>this chapter; and</li> <li>(F) Physical separation of CRT panel glass from CRT funnel glass for the</li> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>(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.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(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:</li> </ul>
<ul> <li>management of CRT panel glass in accordance with section 25143.2.5 of the Health</li> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (de)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>and Safety Code.</li> <li>(2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>30 (2) Any treatment activity identified subsection (<u>de</u>)(1) of this section is not eligible</li> <li>31 for authorization pursuant to this article, but is instead subject to all applicable</li> <li>32 requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>33 treatment activity involves:</li> </ul>
<ul> <li>for authorization pursuant to this article, but is instead subject to all applicable</li> <li>requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>treatment activity involves:</li> </ul>
<ul> <li>32 requirements of chapters 14, 15, 16, 18, 20, and 22 of this division, if the</li> <li>33 treatment activity involves:</li> </ul>
,
34 (A) The use or application of:
35 1. Chemicals, including water, other than coolant recirculated in CRT cutting
36 machines; and/or
37 2. External heat.
(B) Except as specifically provided in subsection $(\underline{d} \in)(1)(D)$ , the onsite treatment of
39 the residuals resulting from the activities authorized by section 66273.73, subsection
40 $(a)(1)_{\underline{,}} = (a)(2)_{\underline{,}} (c)(1), \text{ or } (c)(2)_{\underline{,}}$
41 (C) The treatment of electronic devices containing PCBs, a medical waste, a
42 radioactive material, a reactive material, or an ignitable material.
43 (e) PV module treatment methods allowed.

1	(1) Except as otherwise provided in subsection (e)(2) of this section, one or more of
2	the following treatment methods is eligible for authorization pursuant to this section,
3	if performed by a universal waste handler described in subsection (d) of this section:
4	(A) Physical treatment that changes only the physical properties of PV modules,
5	such as cutting, sawing, broaking, shredding, crushing, grinding, screening,
6	sieving, or compacting;
7	(B) Physical separation based on differences in physical properties such as size,
8	<del>color, density, or ferromagnetism (e.g., screening to separate different</del>
9	components based on differences in their sizes);
10	(2) Any treatment activity identified in subsection (e)(1) of this section is not eligible
11	for authorization pursuant to this article, but is instead subject to all applicable
12	requirements of chaptors 14, 15, 16, 18, 20, and 22 of this division, if the treatment
13	activity involves:
14	(A) The use or application of chemicals, including water.
15	(B) The use or application of external heat.
16	(3) For disposal of PV modules at a permitted hazardous waste disposal facility, the
17	universal waste handler shall be deemed the generator of hazardous waste PV
18	<u>modules, and shall:</u> (A) Managa the D) ( modules as hererdous waste in accordance with all
19 20	(A) Manage the PV modules as hazardous waste in accordance with all applicable requirements of chaptors 12 through 16, 18, 20, and 22 of this
20	division; and
22	(B) Notify the Department in accordance with section 66273.74(a)(5).
23	(d)(ei)(1) Notwithstanding subsections (a)(1)(B), (a)(2)(B), and (b)(2), and (c)(3) of this
24	section, the authorizations provided in this section shall not be required for a handler
25	who recycles scrap metal, including printed circuit boards produced by an authorized
26	handler.
27	(2) As used in this subsection, "printed circuit boards produced by an authorized
28	handler" means residual printed circuit boards that a handler has:
29	(A) derived from electronic devices or PV modules by completing treatment
30	authorized under this article,
31	(B) containerized and labeled pursuant to section 66273.75, subsection (b), and
32	(C) subsequent to the authorized treatment, determined to be exempt scrap
33	metal pursuant to section 66273.71, subsection (e), section 66273.72, subsection
34	(a)(3), or section 66273.75, subsection (c)(1)(C).
35	
36	
37	Note: Authority cited: Sections 25141, 25141.5, 25143.2.5, 25150, 25201, 25214.9,
38	25219.1 <u>, 25259,</u> and 58012, Health and Safety Code; and Section 42475, Public
39	Resources Code. Reference: Sections 25141, 25141.5, 25143.2, 25150, 25159.5,
40	25201, 25212, 25214.9, <del>, 2</del> 5219, 25219.1 <u>, and 25219.2, and 25259,</u> Health and Safety
41	Code.
42	
43	
44	
45	

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.74 to read:
2	S CC072 74 Notification Annual Departing and Departurening
3 4	§ 66273.74. Notification, Annual Reporting, and Recordkeeping.
5	(a) Notification.
6	
7	***
8	(4) Universal waste handlers of PV modules.
9	A universal waste handler who intends to treat PV modules pursuant to this article
10	shall submit to the Department at the address provided in subsection (f) of this
11	section, a written notification containing the following information no later than 30
12	calendar days prior to treating any PV modules:
13	(A) Name of the universal waste handler-(If the facility owner is different than the
14	facility operator, also include the owner's name.);
15	(B) ID Number of the universal waste handler, if applicable Telephone number of
16	universal waste handler:
17	<u>(C) Telephone number of the universal waste handlerMailing address of</u>
18	universal waste handler, and physical address, including county, if different from
19	the mailing address;
20	(D) Mailing address of universal waste handler, and physical address, including
21	county, if different from the mailing address If different from the notifier pursuant
22	to subsection (a)(4)(A) of this section, the name and mailing address of the
23	organization (as authorized to transact business in California) that owns and/or
24 25	<u>operates the facility:</u> (E) Name, business talenhane number, and a mail address (if available) of the
25 26	(E) Name, business telephone number, and e-mail address (if available) of the
20 27	<u>centact person at the universal waste handler's site who should be contacted</u> regarding universal waste management activities;
28	(F) Telephone number of the contact person Facility ID Number, if issued;
20 29	(G) An e-mail address for the contact person or organization, if available; A
30	<u>general description of the source(s) of PV modules (e.g., residential collection(s),</u>
31	<u>other collector(s), etc.);</u>
32	(H) Type(s) of PV modules expected to be treated, if known (e.g., crystalline
33	silicon, thin film, etc.):
34	(H) A description of the authorized-treatment methodprocess(es) to be used to
35	treat PV modules; and
36	(I) A description of how treated PV modules will be recycled and/or disposed of.
37	(J) Documentation that the facility operator has notified the facility property owner
38	(if different from the operator of the facility) that the facility operator is treating PV
39	modueles at the facility.
40	(5) A universal waste handler who makes a determination to dispose of PV modules
41	pursuant to subsection (f)(3)(B) of section 66273.72 or subsection (e)(3) of section
42	66273.73 of this chapter, shall submit to the Department, at the address provided in
43	subsection (f) of this section, a written notification containing the following
44	information no later than 15 calendar days after determining that the PV modules
45	are destined for disposal:

[Photovoltaic modules (PV modules) – Universal Waste Management ] Proposed Regulation Text R-2017-04 1 (A) The ID number for the universal waste handler's facility where the PV 2 modules waswere generated; 3 (B) A description of the authorized treatment method(s) used to generate the PV 4 modules to be disposed of; and 5 (C) The name, address, and ID number of the hazardous waste disposal facility 6 where the PV modules will be disposed of. 7 (b) Annual reporting. 8 \*\*\* 9 10 (3) Universal waste handlers of PV modules. Except as otherwise provided in section 66273.71, a universal waste handler who 11 12 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 13 14 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. following: 15 (A) Name of the universal waste handler (if the facility owner is different than the 16 17 facility operator, also include the owner's name), mailing address (and physical 18 address, including county, if different from the mailing address), and telephone 19 number of the universal waste handler; 20 (B) Telephone number of the universal waste handler A description of the facility; 21 (C) Mailing address of the universal waste handler, and physical address, 22 including county, if different from the mailing address Name and mailing address 23 of the organization (as authorized to transact business in California) that owns 24 and/or operates the facility; 25 (D) Name, title, telephone number, and e-mail address (if available) of the 26 contact person at the universal waste handler's sitephysical address who should 27 be contacted regarding universal waste management activities at the location; 28 (E) Telephone number of the contact person: 29 (F) An e-mail address for the contact person or organization, if available; 30 (GE) Facility ID Number, if issued; 31 (HE) Number of days the facility operated; (G) Type(s) of PV modules treated at the facility, if known (e.g., crystalline silicon, 32 33 thin film, etc.); 34 (I<u>H</u>) A description of the authorized tTreatment method(s) used to treatfor PV 35 modules treated at the facility; and 36 (<u>J</u>) The total quantity (count or weight) of PV modules treated during the 37 previous calendar year; (KJ) A list consisting of: 38 39 1. The name, address, and telephone number for each of the locations to which 40 the universal waste handler shipped PV modules, scrap metal, and/or exempt 41 materials during the previous calendar year; and-2. The total number (count or weight) of PV modules shipped to that location 42 43 during the previous calendar year, including in this case a declaration of 44 whether that location is a glass manufacturer, a reclamation facility, or a 45 destination facility.

1	( <u>LK) AWhenever necessary, a</u> universal waste handler who utilizes a mass-
2	based inventory system to quantify PV modules and PV module residuals may
3	<u>convert mass data to count data through application of an appropriate conversion</u>
4	factor (e.g., 40 pounds per PV module) to fulfill the annual reporting requirement
5	of this subsection (b)(3). A universal waste handler who performs such a data
6	conversion(s) shall indicate that the count data were derived from mass data and
7	shall include the conversion factor(s) used in the annual report-must provide an
8	appropriate conversion factor to convert mass data to count data.
9	appropriate conversion ractor to convert made data to count data.
10	***
11	
12	(c) Recordkeeping.
13	(1)(A) Universal waste handlers of electronic devices and/or CRTs.
14	Except as otherwise provided in sections 66273.71 and 66273.72, a universal waste
15	handler who treats any electronic device and/or CRT pursuant to this article shall
16	maintain on file at the universal waste handler's facility, the following documents as
17	specified:
18	
19	***
20	
21	(3) Universal waste handlers of PV modules.
22	(A) Except as otherwise provided in sections 66273.71, aThe universal waste
23	handler who treats any PV modules pursuant to this article shall maintain on file at
24	the universal waste handler's facility the following documents as specified:
25	1. A copy of the notification submitted to the Department as required by
26	subsection (a)(4) of this section;
27	2. A copy of the notification submitted to the Department as required by
28	subsection (a)(5) of this section;
29	$\underline{23}$ . A copy of the most recent annual report submitted to the Department as
30	required by subsection (b) of this section, beginning no later than February 1 of
31	the year following the most recent calendar year during which the universal
32	waste handler treated any PV modules at the universal waste handler's facility
33	pursuant to this article; and
34	<u>34</u> . A current copy of any local air district permit and/or other relevant permit(s)
35	required for the facility, beginning no later than the date on which the local air
36	district and/or other relevant permitting authority required the universal waste
37	handler to possess such a permit.
38	(B) The universal waste handler shall make available the relevant documents
39	identified in subsection (c)(3) <del>(A)1 through (c)(3)(A)3</del> of this section at the universal
40	waste handler's facility upon request, to any representative of the Department, U.S.
41	EPA, or a local governmental agency having jurisdiction over the facility.
42	(C) The universal waste handler shall either deliver in person or send to the
43	Department by certified mail, return receipt requested, a copy of any relevant
44	document identified in subsection (c)(3)(A) - of this section upon receipt of a written
45	request from the Department. The Department shall specify in its written request all

1	of the following: the identities of the documents for which copies are required; the
2	place where those copies shall be delivered or sent; and the date by which those
3	copies shall be submitted.
4	
5	***
6	(e)(1) If submitted electronically, notifications and annual reports required pursuant to
7	subsections (a) and (b) of this section shall be addressed to the Department at
8	https://www.dtsc.ca.gov. For electronic notifications and annual reports made pursuant
9	to this section, the universal waste handler signature required by subsection (d) of this
10	section shall be submitted to the address provided in subsection (f) of this section.
11	(2) A person that has provided written submissions of any of the Department
12	notifications and annual reports required pursuant to subsections (a) and (b) of this
13	section is not required to submit the same information electronically.
14	(3) If the Department's universal waste web-based reporting system is not available
15	or cannot accommodate electronic submissions for any of the Department
16	notifications and annual reports required pursuant to subsections (a) and (b) of this
17	section the handler shall provide written submissions in accordance with subsection
18	<u>(f).</u>
19	(f)(1) If submitted in writing, notifications and annual reports required pursuant to
20	subsections (a) and (b) of this section shall be sent to the Department by certified mail,
21	return receipt requested, at the following address: Department of Toxic Substances
22	Control, Universal Waste Notification and Reporting Staff, P.O. Box 806, Sacramento,
23	CA 95812-0806, with the words "Attention: Universal Waste Handling Activities"
24	prominently displayed on the front of the envelope.
25	(2) A person that has provided electronic submissions of any of the Department
26	notifications and annual reports required pursuant to subsections (a) and (b) of this
27	section through the Department's universal waste web-based reporting system in
28	accordance with subsection (e) of this section is not required to submit the same
29	information in writing.
30	
31	
32	Note: Authority cited: Sections 25141, 25141.5, 25150, 25201, 25214.6, 25214.9,
33	26219.1, <u>25259</u> , and 58012, Health and Safety Code; and Section 42475, Public
34	Resources Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25179.6,
	Safety Code.
43	
35 36 37 38 39 40 41 42	Resources Code. Reference. Sections 25141, 25141.3, 25150, 25159.5, 25179.6, 25201, 25212, 25214.6, 25214.9, 25219, 25219.1, and 25219.2, and 25259. Health and Safety Code.

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.74 to read:
2 3 4	§ 66273.75. Treatment (Processing) Standards.
5 6 7 8	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:
9 10 11 12 13 14 15 16 17 18 19	<ul> <li>(a) Treatment.</li> <li>The universal waste handler shall: <ul> <li>(1) Utilize only treatment methods identified in section 66273.73, subsection (<u>de</u>) for electronic devices, residual printed circuit boards, <u>and/or CRTs, and/or treatment methods identified in section 66273.73, subsection (e) for PV modules;</u></li> <li>(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;</li> </ul> </li> </ul>
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	<ul> <li>***</li> <li>(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.</li> <li>(b) Containment of residuals.</li> <li>(1) The universal waste handler shall manage all residuals produced from treating electronic devices, residual printed circuit boards, <u>PV modules</u>, and/or CRTs, in a manner that prevents a release to the environment of any universal waste or any component <u>or constituent</u> thereof, as follows:</li> <li>(2) Contain any residuals that are produced from treating electronic devices, residual printed circuit boards, <u>PV modules</u>, and/or CRTs, in a manner that prevents a release to the environment of any universal waste or any component <u>or constituent</u> thereof, as follows:</li> <li>(2) Contain any residuals to the environment under reasonably foreseeable conditions.</li> <li>(3) Clean up and immediately place in a container any electronic device, residual printed circuit board, <u>PV module</u>, 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, <u>PV modules</u>, and/or CRTs, and prevent releases under reasonably foreseeable conditions.</li> </ul>
43 44 45 46	***

1	(d) Worker safety.
2	(1) A universal waste handler, who treats electronic devices, residual printed circuit
3	boards <u>, PV modules,</u> and/or CRTs, shall be thoroughly familiar with the hazards
4	associated with such treatment, have access to the proper procedures and
5	protective equipment necessary to conduct the treatment safely, use such protective
6	equipment if required by any applicable health and safety requirements, and comply
7	with the requirements of this section;
8	(2) A universal waste handler, who treats electronic devices, residual printed circuit
9	boards, <u>PV modules,</u> and/or CRTs, shall ensure that the universal waste handler's
10	facility is operated in compliance with all applicable health and safety laws and
11	regulations [e.g., Cal. Code Regs., tit. 8, ch. 4 (Division of Industrial Safety), subch.
12	7 (General Industry Safety Orders), group 16 (Control of Hazardous Substances),
13	art. 107 (Dusts, Fumes <u>, Mists,</u> Vapors and <u>MistsGases</u> ), and art. 109 (Hazardous
14	Substances and Processes), and sec. 5198 (Lead)].
15	(e) Zoning.
16	(1) A universal waste handler, who treats electronic devices, residual printed circuit
17	boards <u>, PV modules,</u> and/or CRTs using any of the methods allowed pursuant to this
18	section, shall ensure that such treatment is consistent with local zoning requirements
19	and land use patterns applicable to the universal waste handler's facility.
20	
21	
22	***
23	
24	
25	Note: Authority cited: Sections 25141, 25141.5, $\underline{-}$ 25150, 25201, 25214.9, 25219.1,
26	25259, and 58012, Health and Safety Code; and Section 42475, Public Resources
27	Code. Reference: Sections 25141, 25141.5, 25150, 25159.5, 25173, 25201, 25212, 25214.0, 25210.1, and 25210.2, and 25250. Health and Seferty Code: Sections
28	25214.9, 25219, 25219.1, and 25219.2, and 25259, Health and Safety Code; Sections
29 30	42479, Public Resources Code.
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.76 to read:
2 3	§ 66273.76. Closure Plan and Financial Requirements.
4 5 7 8 9 10 11 12 13	<ul> <li>(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 (ce), 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:</li> </ul>
14	(1) Closure plan
15 16 17	***
18 19 20 21 22 23 24	(4) Universal waste handlers who notify the Department <u>pursuant to section</u> <u>66273.74</u> , <u>subsection (a)</u> , of their intent to conduct one or more of the treatment activities described in section 66273.73, subsections (a)(2), and (b), and ( <u>cel</u> ) on or <u>before [OAL to insert effective date of these regulations]</u> shall submit the closure plan required by subsection (a)(1) of this section <u>when they submit the notification</u> on <u>or before December 31, 2008</u> .
25 26	(b)(1) Cost estimate for closure.
27 28 29 30 31 32 33 34	(5) Notwithstanding subsection (b)(2) of this section, universal waste handlers who notify the Department <u>pursuant to section 66273.74</u> , <u>subsection (a)</u> , of their intent to conduct one or more of the treatment activities described in section 66273.73, subsections (a)(2), and (b), and (cd), 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.
35 36 37 38 39 40 41 42 43	*** Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1 <u>, 25259, and</u> 58012, Health and Safety Code; and Section 42475, Public Resources Code. Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.9, 25219, 25219.1 <u>,</u> and 25219.2 <u>, and 25259</u> , Health and Safety Code.

1	Amend Title 22, division 4.5, chapter 23, article 7, section 66273.77 to read:
2 3 4	§ 66273.77. Closure of Universal Waste Treatment Facilities.
5	(a) Closure notification.
6	A universal waste handler who intends to close a universal waste treatment facility or
7	any universal waste treatment unit, including universal waste units that also treat
8	residual printed circuit boards that have been determined to be exempt scrap metal
9	pursuant to section 66273.71, subsection (e), section 66273.72, subsection (a)(3), or
10	section 66273.75, subsection (c)(1)(C), and who conducts any of the treatment activities
11	described in section 66273.73, subsection (a)(2) <u>,</u> <del>or</del> (b) <u>, or (c</u> <del>d</del> ), shall:
12	(1) Submit to the Department in the manner and at the address given in subsections
13	(c) and (d) of this section, a notification containing the following information:
14	(A) The date of the last day on which the universal waste handler intends to
15	conduct the treatment activities specified in section $66273.73$ , subsection (a)(2),
16	<del>or</del> (b) <u>, or (c<del>d</del>);</u>
17	(B) The date of the last day on which the universal waste handler intends to
18	conduct handling activities other than the treatment activities specified in section
19	66273.73, subsection (a)(2), or (b), or (cel) at the facility, if applicable; and
20	(C) The date the universal waste handler intends to complete the closure
21	activities described in the handler's closure plan and/or, if applicable, vacate the
22	facility.
23 24	***
24 25	
25 26	Note: Authority cited: Sections 25141, 25150, 25201, 25214.9, 25219.1, 25259, and
27	58012, Health and Safety Code; and Section 42475, Public Resources Code.
28	Reference: Sections 25141, 25150, 25159.5, 25201, 25212, 25214.9, 25219, 25219.1,
29	and 25219.2, and 25259, Health and Safety Code.
30	
31	
32	
33	
34	
35	
36	
37	
38	
39 40	
40 41	
41 42	
42 43	
44	
45	