

SECOND PUBLIC COMMENT PERIOD: RESPONSE TO COMMENTS

SEPTEMBER 9, 2019 – SEPTEMBER 24, 2019

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I. Overview and Organization

This document summarizes and responds to public comments submitted to the Department of Toxic Substances Control (DTSC) on the proposed rulemaking titled *Photovoltaic modules (PV modules) – Universal Waste Management*, which was released to the public on September 9, 2019. The timeline for DTSC interaction with the public with regard to this proposed rulemaking was as follows:

- The proposal was released to the public on April 19, 2019 for comment for a public comment period of fifty-two (52) days which ended on June 10, 2019;
- A public hearing was held on June 10, 2019;
- A second proposal was released to the public on September 9, 2019 for a 15-day public comment period which ended on September 24, 2019;
- A third proposal was released to the public on October 18, 2019 for a 15-day public comment period which ended on November 2, 2019.
- A fourth proposal was released to the public on December 24, 2019 for a 15-day public comment period which ended on January 8, 2020.

This Response to Comments document addresses the comments received during the public comment period that ended on September 24, 2019. There were five (5) written comment letters received during this comment period. A list of commenters and their affiliations, in alphabetical order, and the number assigned to their correspondence is included in **Table 1**.

For a list of commenters and response to comments received on the proposed regulations, please refer to the following:

- First Public Comment Period: Response to Comments, April 19, 2019 – June 10, 2019;
- Third Public Comment Period: Response to Comments, October 18, 2019 – November 2, 2019; and,
- Fourth Public Comment Period: Response to Comments, December 24, 2019 – January 8, 2020.

Each comment letter was issued a number starting with “2.” DTSC subsequently numbered each of the comments contained in the letter and collated similar comments together. For example, the designation “2-1-1” means “September 9, 2019 - September 24, 2019” comment period comment, comment letter number 1, comment number 1, and so forth.

For the purpose of orderly presentation, the comments have been categorized by the article in the regulation that they address. The comments that are general in nature or have overarching applicability have been addressed under “General.” For all other comments related to a specific article or section, please refer to the respective article or section.

All referenced section numbers are found in division 4.5 of title 22 of the California Code of Regulations, unless otherwise specified.

Table 1. List of Commenters

#	Name of Entity	Commenter	Number of comments
1	California Electronic Asset Recovery	Kristin DiLallo Sherrill	3
2	Rural Counties Environmental Services Joint Powers Authority	Larry Sweetser	56
3	Republic Services	Marie Knutson	3
4	Solar Energy Industries Association; California Solar Storage Association; National Stewardship Action Council; California Product Stewardship Council	Evelyn Butler; Benjamin Davis; Doug Kobold; Heidi Sanborn	23
5	San Francisco Department of the Environment	Maggie Johnson	17

II. Definitions

A. APPROVAL

Comment Summary:

The comments approve of the clarification made for the definition of the term “Photovoltaic module” in the revised regulation text (that individual PV cells are managed as PV modules). The comments approve of the revised definition that clarifies that integrated components that cannot be separated without breaking the PV module glass are a part of the PV module and external ancillary components that can be removed are not a part of the PV module. The comments also approve the changes DTSC proposes to differentiate between the terms “Photovoltaic module” and “Photovoltaic system.”

Comments: 2-2-15, 2-2-21, 2-5-3

Response:

DTSC reviewed the comments and has determined that no regulatory change is necessary. The comments express the approval for the changes made to the definition of the term “Photovoltaic module” that clarify that PV cells that are not electrically connected can be managed as a universal waste PV module, integrated components that cannot be separated without breaking the PV module glass are part of the PV module, and external ancillary components that can be removed are not a part of the PV module.

B. CLARITY BETWEEN PV MODULE INTEGRATED DEVICE AND PV MODULE INTEGRATED ELECTRONIC DEVICE

Comment Summary:

The comments request that DTSC clarify that devices such as calculators, garden lights, backpacks, luggage, or other similar devices can be managed as universal waste. These items would be allowed to be managed like other e-waste materials listed under section 66273.9 definition of “Electronic device.” Definitions in sections 66260.10 and 66273.9 both define most of these items as “photovoltaic module integrated device,” yet calculators are defined as an “electronic device.” The comments state that DTSC should add a statement such as “Photovoltaic module integrated devices, while exempt from this Chapter, may be processed as electronic devices” to the definitions of “Photovoltaic module integrated device” and “Electronic device” in sections 66260.10 and 66273.9. The comments state that such statement would make it clear that e-waste processors can process garden lights and other similar products without a question of whether they are allowed or not.

Comments: 2-4-19, 2-4-20, 2-4-21, 2-4-22

Response:

DTSC agrees with the comments that the term “Photovoltaic module integrated device” is difficult to distinguish from electronic devices that have PV modules integrated. DTSC assumes that the devices, such as calculators, garden lights, backpacks, luggage, or other similar devices, that the comments referred to have PV module(s) integrated since the comment was provided under the title “Integrated devices,” and not of the same devices that do not have PV module(s) integrated.

To clarify, DTSC first removed the definition of the term “Photovoltaic module integrated device” from sections 66260.10 and 66273.9 in the proposed regulatory text and its corresponding language in section 66273.7.1(b)(8) regarding what is not to be managed as a universal waste PV module. DTSC then revised the definition of the term “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices with PV cells/modules integrated to be managed as a PV module. DTSC did not make changes to the proposed regulatory text in section 66273.7.1(c) that specifies that electronic devices that have PV module integrated are required to be managed as an electronic device. Therefore, universal waste management of PV module applies to “Photovoltaic module” as redefined, which includes devices with PV modules integrated that are not an electronic device, such as garden lights, backpacks, and luggage. Electronic devices with PV cell/module integrated, such as calculators, are managed as electronic devices.

C. DEFINITION OF PV MODULE INTEGRATED DEVICE

Comment Summary:

The comments state that the term “Photovoltaic module integrated device” should be deleted or revised to beyond personal or household use since it lacks clarity and provides inconsistency with other requirements. The comments suggest using the term “item” instead of “device” if the term “photovoltaic module integrated device” is kept in the proposed regulation.

The comments state that the definition of “Photovoltaic module integrated device” is difficult to distinguish from the definition of “Photovoltaic module” which means a device consisting of one or more electrically connected PV cells that are designed to convert solar radiation into electrical energy. PV module includes integrated components that cannot be separated without breaking the PV module glass, such as protective glass, conductive metal contact, metal framing the PV cells, and top and back layer. The listed examples also include electronic circuitry and would seem to meet the examples of electronic devices as indicated in subsection 66273.7.1(c) regarding what is covered to be managed as universal waste electronic devices.

The revised definition would be:

“Photovoltaic module integrated ~~device-item~~” means an item ~~device~~ with a photovoltaic module embedded or attached, for which the photovoltaic module is not intended to be removed or replaces a part of the normal maintenance, use and operation of the ~~device item~~, ~~and is intended for personal or household use or adornment~~ (e.g. garden lights, toys, backpacks, luggage).

Comments: 2-2-5, 2-2-16, 2-2-17, 2-2-18, 2-2-19, 2-2-23, 2-2-29, 2-5-4, 2-5-5, 2-5-7

Response:

DTSC agrees with the comments that the definition of the term “Photovoltaic module integrated device” is difficult to distinguish from the term “Photovoltaic module.” To clarify, DTSC removed the definition of the term “Photovoltaic module integrated device” from the proposed regulatory text from sections 66260.10 and 66273.9 and its corresponding language in section 66273.7.1. DTSC then revised the definition of the term “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components such as housing or pocket holding the PV cells/modules, thereby, allowing devices with PV cells/modules integrated to be managed as a PV module. DTSC also consequently removed terms associated with PV module integrated device from other sections of the proposed regulation. Based on the changes made to the definition of PV module and the removal of the definition PV module integrated device, it is clear that devices that have PV module(s) integrated, that are not an electronic device, can be managed as universal waste PV module.

D. CORRECTION

Comment Summary:

The comment states that the term "ratiation" in the definition of "Photovoltaic module" in section 66260.10, should be changed to "radiation." The comment also indicates that there is a comma missing after "metal framing" in the definition of "Photovoltaic module" in sections 66260.10 and 66273.9.

Comment: 2-2-22

Response:

DTSC agrees with the comment on the spelling error and has corrected it in the definition of the term "Photovoltaic module" in section 66260.10. DTSC disagrees with the comment to add a comma after metal framing to the definition of "Photovoltaic module" in sections 66260.10 and 66273.9 because this specific example provided as an example of integrated components in the definition of "Photovoltaic module" is indeed intended to read as "metal framing the photovoltaic cells," in which framing is

used as a verb, and not “metal framing, the photovoltaic cells,” in which framing is a part of the noun “metal.” As such, a comma is not added as the comment suggested.

E. SECTION 66273.9 DEFINITIONS

Comment Summary:

The comment states that the comments provided regarding the definitions in section 66260.10 on PV cells, PV module integrated device, and PV module also apply to those definitions in section 66273.9.

Comment: 2-2-28

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary to address this specific comment. DTSC has mirrored any definition changes based on the comments received for section 66273.9 in section 66260.10 to avoid clarity issues.

III. Requirements for Universal Waste

A. REMOVE SECTION 66273.7.1(b)(8)

Comment Summary:

The comment suggests that DTSC delete subsection 66273.7.1(b)(8), regarding the specification that PV module integrated devices are not to be managed as universal waste PV module, from the proposed regulation entirely.

Comments: 2-5-8, 2-5-11

Response:

DTSC agrees with the comment to remove section 66273.7.1(b)(8) from the proposed regulation regarding the specification that states that PV module integrated devices are not applicable to be managed as a universal waste. To clarify, DTSC first removed the definition of the term “Photovoltaic module integrated device” from the proposed regulatory text from sections 66260.10 and 66273.9 followed by removing the corresponding language in section 66273.7.1 as the comment suggested. DTSC revised the definition of the term “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices with PV cells/modules integrated to be managed as universal waste PV module.

IV. Applicability

A. ELECTRONIC DEVICE WITH PV MODULE INTEGRATED

Comment Summary:

The comments state that it is not clear which PV module integrated devices are an electronic device identified in section 66273.7.1(c) and which are hazardous waste. The examples listed in the definition for "Photovoltaic module integrated device" include garden lights, backpacks, and luggage. All of these items have a PV module and electronic circuitry and likely a battery. The comments request clarifying how to categorize PV modules integrated into the structure of electronic devices, whether they are managed as universal waste or hazardous waste. The comment further requests that DTSC cite the regulations that specifically state how to categorize this waste stream.

Comments: 2-1-1, 2-2-25, 2-2-26

Response:

DTSC agrees that it is not clear whether an electronic device that has integrated PV module(s) is considered a PV module integrated device. To clarify, DTSC first removed the definition "Photovoltaic module integrated device" from sections 66260.10 and 66273.9 and subsequently removed the section 66273.7.1(b)(8) that specifies that a PV module integrated device that is not an electronic device is not managed as universal waste PV module. DTSC then revised the definition of "Photovoltaic module" to be a device that contains one or more PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices that have integrated PV cells/modules to be managed as a PV module. By making these changes, DTSC eliminates the use of the term "photovoltaic module integrated device" altogether from the proposed regulation.

DTSC did not make changes to section 66273.7.1(c) of the proposed regulatory text, which specifies that electronic devices that have integrated PV modules, such as calculators, are not to be managed as a PV module but are instead to be managed as an electronic device. Therefore, devices that function as an electronic device, whether PV module integrated or not, must still be managed as an electronic device.

B. PV MODULE INTEGRATED DEVICES

Comment summary:

The comment requests that DTSC clarify how to categorize PV module integrated garden lights and point to the right section of the regulation that specifically states how to categorize this waste stream.

Comment: 2-1-2

Response:

DTSC acknowledges that the applicability of the proposed regulation for devices that have integrated PV modules is not clear. To clarify, DTSC first removed the definition “Photovoltaic module integrated device” in sections 66260.10 and 66273.9. DTSC subsequently removed section 66273.7.1(b)(8) that specifies that a PV module integrated device that is not an electronic device is not managed as universal waste PV module, and instead must be evaluated to determine if it is a hazardous waste and must be managed as such. DTSC revised the definition of “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices with PV cells/modules integrated to be managed as a PV module. Based on the new definition of PV module and deletion of the term “Photovoltaic module integrated device” in sections 66260.10 and 66273.9, a device that has PV cells integrated, that is not an electronic device, can be managed as universal waste PV module.

C. CLARITY BETWEEN PV MODULE INTEGRATE DEVICE AND PV MODULE INTEGRATED ELECTRONIC DEVICE

Comment summary:

The comments state that the definition for "Photovoltaic module integrated device" lacks clarity as to the classification of PV module integrated devices. The comments ask if these items are universal waste PV modules, universal waste electronic devices, or other hazardous waste (non-universal). Subsection 66273.7.1(b)(8) and subsection 66273.7.1(c) do not clarify the classification of these items. There is no clear means to discern between these terms.

The comments also state that section 66273.7.1 says that “PV module integrated devices” that exhibit a characteristic of a hazardous waste as set forth in article 3 of chapter 11 are regulated as hazardous waste. One characteristic listed in this article is toxicity. Therefore, this section indicates that “PV module integrated devices” are hazardous waste solely based on the toxicity characteristic. Electronic devices are universal waste if they exhibit the characteristic of toxicity. This lacks clarity due to this inconsistency and warrants deletion.

Comments: 2-2-20, 2-2-24

Response:

DTSC agrees with the comments that the terms PV module, PV module integrated device, and electronic device with PV module integrated lack a clear distinction among them. To clarify, DTSC first removed the definition of the term “Photovoltaic module

integrated device” from the proposed regulatory text from sections 66260.10 and 66273.9. DTSC subsequently removed section 66273.7.1(b)(8) that specifies that PV module integrated device that is not an electronic device is not managed as universal waste PV module, and instead must be evaluated to determine if it is a hazardous waste and if so, must be managed as such. DTSC then revised the definition of the term “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices with PV cells/modules integrated to be managed as a PV module.

DTSC did not make changes to the proposed regulatory text in section 66273.7.1(c) regarding the management of PV modules that are integrated into the structure of electronic devices; such electronic devices must be managed as an electronic device, thereby, providing a distinction between a PV module and a PV module integrated electronic device.

D. APPROVAL

Comment summary:

The comment appreciates subsection 66273.7.1(c) regarding the management of PV modules that are integrated into the structure of an electronic device as an electronic device. The comment states that the revised regulatory text clarifies a lingering question by the regulated community as to management of these electronic devices. This statement also provides consistency with the Initial Statement of Reasons.

Comment: 2-2-27

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is the approval of the changes made in section 66273.7.1(c) clarifying the management of electronic devices with PV modules integrated as an electronic device.

V. Notification and Reporting Requirements for Universal Waste Handlers

A. 30-DAY NOTIFICATION REQUIREMENTS

Comment Summary:

The comments state that the proposed regulation is unclear regarding whether a handler would need to give DTSC a 30-day notification that the handler will accept PV module waste from any location, or if DTSC requires a handler to register one time 30 days prior to accepting the waste. The comments state that the notification requirement before accepting PV modules is inconsistent with the reality of discovery at solid waste facilities and illegal disposal sites as well as household hazardous waste facilities. The comments further state that the requirement imposes undue burden on the regulated community as well as DTSC by requiring registration and annual reporting of hundreds of entities that are not expecting to “accept” PV modules.

Comments: 2-2-6, 2-2-32, 2-4-11

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

B. USE OF THE WORD “ANY” IN SECTION 66273.32(e)(1)

Comment Summary:

The comment states that section 66273.32(e)(1) for notification to the Department for accepting and accumulating “any” PV modules is not necessary, is excessive, and contradicts the requirement in section 66273.32(f) with regards to annual reporting requirements.

Comment: 2-2-30

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded the comments that were submitted during the initial 52-day comment period to in the responses to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

C. NOTIFICATION BY LOCATION

Comment Summary:

The comment states that subsection 66273.32(e)(3) regarding the notification requirement “for each location at which the universal waste handler accepts or accumulates PV modules from an offsite source, i.e., the handler’s facility” would mean a handler that removes PV modules from residences and businesses to provide notifications to the Department of every location serviced and 30 days prior to accepting the PV modules. The comment expresses that such requirement is excessive and not necessary. A more realistic expectation would be to provide notification for locations where PV modules are accumulated only, which would be consistent with the provided example of the “handler’s facility.”

The comment suggests the removing “accepts” from subsection 66273.32(e)(3) as follows:

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

Comment: 2-2-36

Response:

DTSC reviewed the comments and has determined that no regulatory change is necessary. The proposed regulatory text, as specified in section 66273.32(e)(3), requires a handler that accepts or accumulates PV modules to submit the notification for each handling facility, and not the location where PV module wastes are collected from or originated. As such, no regulatory text change is made.

The requirement for the handlers to notify DTSC 30 days prior to accepting PV modules is not a part of section 66273.32(e)(3) or addressed the provisions made in the proposed regulation released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the

proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

D. NOTIFICATION REQUIREMENT FOR WAREHOUSES AND DISTRIBUTION CENTERS

Comment Summary:

The comment urges DTSC to exempt warehouses, distribution centers, and other such facilities from notification requirements as universal waste handlers. The comment states that the draft regulation is unclear on whether warehouses and distribution centers must notify as universal waste handlers if they receive PV modules that are designated as universal waste. Many such facilities are leased and may not be allowed to have such waste on the premises. This potential impact is not clearly stated in DTSC's economic impact statement and will be unfairly burdensome, onerous, and costly to the solar industry.

Comment: 2-4-12

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

E. ANNUAL REPORT THRESHOLDS

Comment Summary:

The comments state that the 100-kilogram (220 pounds) annual reporting threshold in section 66273.32 for handlers that accept PV modules is unwarranted for the PV module industry and will have a significant impact on thousands of businesses that use vehicles and employees to transport PV modules to installation sites and/or to disposal sites. The comments argue that since residential households are exempt from the requirements of this chapter pursuant to section 66273.8, the unintended consequence of not increasing the annual reporting limit may encourage new installers to leave old

panels behind for the resident to deal with if the original installer has gone out of business. The comments assert that a more reasonable limit would be commensurate with the larger size of the PV modules. The comments suggest the threshold limit for annual reporting to be set at 500 kilograms (1,100 pounds) instead of 100 kilograms (220 pounds.) The comments further state that aforementioned comments also apply to section 66273.51 regarding prohibition for universal waste transporters and elsewhere in the proposed regulation where such threshold applies.

Comments: 2-2-7, 2-2-37, 2-2-38, 2-4-8, 2-4-9, 2-4-10, 2-4-13, 2-4-14

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The proposed regulation is clear that the 100 kilograms (220 pounds) threshold limit as specified in section 66273.32 is the annual reporting threshold for handlers that accept PV modules; it is not the universal waste handler notification or the transporter requirements. Regardless, the comments addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comments are outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to the comments.

F. APPROVAL FOR REPORTING PV MODULES BY “TYPE”

Comment Summary:

The comment appreciates the revision to subsection 66273.32(e)(2)(H) regarding the notification requirement to notify the type of PV module expected to handle only if the type is known.

Comment: 2-2-35

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is the approval to the revision made to the regulatory text in section 66273.73(e)(2)(H) for handlers to notify the type of PV modules expected to handle in the notification only if the types are known.

G. PV MODULES ARE NOT UBIQUITIOUS AND ARE PRONE TO ILLEGAL DISPOSAL

Comment Summary:

The comment asserts that unlike other universal wastes that are commonly used by nearly everyone, PV modules are increasing in usage, but are not ubiquitous or universally handled. The size of PV modules makes management more difficult and costs are uncertain. Until acceptance is more common and convenient, the circumstances are likely that PV modules will be illegally discarded in the solid waste stream, along roadsides, and refused from household hazardous waste facilities.

Comment: 2-2-31

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

H. RECORDING, TRACKING AND REPORTING ARE A BURDEN

Comment Summary:

The comment states that recording, tracking, and reporting the information noted in subsection 66273.32(f)(3) regarding a list of requirements that are specified to include in the annual report is an unreasonable administrative burden for solar installers and service companies.

Comment: 2-4-9

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The proposed regulation is clear that section 66273.32(f)(3) the comment refers to is a list of what to include in the handler's annual report; it is not recording and tracking requirements which are specified in section 66273.39 for universal waste shipments. Nonetheless, the comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on

April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

I. THE EFFORT TO PROCESS NOTIFICATION AND ANNUAL REPORTING REQUIREMENTS BY DTSC IS UNNECESSARY

Comment Summary:

The comment asserts that the effort for DTSC and the regulated community to review and process notifications and annual reports is excessive, would consume significant resources, and is not necessary.

Comment: 2-2-33

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

J. HOUSEHOLD HAZARDOUS WASTE GENERATORS AND TRANSPORT THRESHOLD

Comment summary:

The comments assert that the notification requirements in section 66273.32 would limit residents seeking to deliver PV modules to a household hazardous waste facility to a “total amount of household hazardous waste transported by an individual or hazardous waste transported by a conditionally exempt small quantity generator to a household hazardous waste collection facility shall not exceed a total liquid volume of five gallons or a total dry weight of 50 pounds” (Health and Safety Code 25218.5(b)(1)) or an increase of up to 125 pounds with information on proper techniques for packaging and transporting the household hazardous waste (Health and Safety Code Section 25218.5.1). Transportation greater than this amount is illegal for the resident to transport.

The comments further assert that the definition of household hazardous waste in Health and Safety Code section 25218(e) does not exclude universal waste from the definition unlike the calculation used by business generators in Health and Safety Code section 25158.1. Hazardous waste produced incidental to owning and maintaining their own place of residence are not subject to the standards for generators of hazardous waste (section 66262.10(i)). This would limit the maximum legal transport for residents to a household hazardous waste facility to 125 pounds or about three PV modules.

Comments: 2-2-39, 2-2-40

Response:

DTSC reviewed the comments and has determined that no regulatory change is necessary. The comments addressed the provisions in the proposed regulation that did not change from the initial version and released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

K. REGULATORY TEXT CHANGE TO SECTION 66273.32(e)(1)

Comment summary:

The comment states that it would be more appropriate to require notification after the inadvertent discovery of PV modules. This section is recommended to be changed as crossed out and underlined as follows:

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

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

Comment: 2-2-34

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did

not change from the initial version and released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

L. DTSC WEBLINK CORRECTION

Comment Summary:

The comment states that due to recent changes, the DTSC website is at <https://www.dtsc.ca.gov> rather than the listed <http://www.dtsc.ca.gov>.

Comment: 2-2-41

Response:

DTSC agrees with the comment and has updated DTSC website from <http://www.dtsc.ca.gov> to <https://www.dtsc.ca.gov>.

VI. Universal Waste Management Requirements for PV Modules

A. SECTION NUMBERING

Comment Summary:

The comment states that the revised subsection in section 66273.33.6, regarding universal waste management requirements for PV modules, contains subsection (a) but no subsection (b) which is unusual formatting.

Comment: 2-2-42

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. DTSC has intentionally numbered the subsections in section 66273.33.6 to align with the numbering in section 66273.33.5 for universal waste management requirements for electronic devices, and CRTs, and CRT glass. As such, no regulatory text change is made.

B. MANAGEMENT OF BROKEN PV MODULES

Comment Summary:

The comments suggest that DTSC clarify the management of broken PV modules as universal waste. The comments state that acceptance and management of broken PV modules should be allowed to be consistent with section 66273.37(c) which allows “residues of leaking, broken, or otherwise damaged universal waste [to be] managed as universal waste.” The comments also state that unless the handler is directly responsible for the breakage or damage of a PV module, the handler will not know if the damage was accidental or intentional. The comments suggest that either 66273.33.6(a)(3)(A) or section 66273.33.6(a)(1)(B)1.b. needs to be changed to allow broken PV modules to be accepted.

The comments recommend the following change to subsection 66273.33.6(a)(1)(B)1.b.:

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

Comments: 2-2-8, 2-2-43, 2-2-44

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

VII. Labeling/Marking

A. COMMINGLING WITH OTHER UNIVERSAL WASTES

Comment Summary:

The comments suggest that DTSC restore the allowance to commingle PV modules with electronic devices, CRTs, and CRT glass in the same container and same area, since it is likely that current facilities that accept electronic devices will also accept PV

modules. The comments state that the customer can separate the items or find a new vendor if a facility does not accept the mixed load. Existing vendors already provide reports of the separate constituents for reporting purposes. The comments argue that allowing commingling of PV modules with other universal wastes, such as electronic devices, will benefit sites with limited storage space.

The comments assert that if commingling is reinstated in subsection 66273.34(h), the allowance for a “designated area demarcated by boundaries” is a beneficial requirement. The comments further suggest shortening the label as “Universal Waste-Electronic Device(s)/CRT(s)/CRT Glass/PV modules” if commingling is allowed. If commingling is not reinstated, allowing PV modules to be stored in the same designated area would be helpful to proper management.

Comments: 2-2-9, 2-2-45, 2-2-46, 2-2-47, 2-5-13

Response:

DTSC reviewed the comment and has determined that no regulatory text change is necessary for section 66273.34(h) regarding the request for reallocation of commingling PV modules with universal waste electronic devices and CRTs, followed by the request to shorten the label to “Universal Waste-Electronic Device(s)/CRT(s)/CRT Glass/PV modules” if commingling is allowed.

PV modules are a separate waste stream under the universal waste standards and are prohibited from being commingled with other universal wastes, such as electronic devices, due to the need to comply with the specific requirements associated with each waste stream. Different universal wastes have different management requirements and thus must be handled separately. Therefore, PV module(s) were not added to section 66273.34(h). Since no changes are made to section 66273.34(h), labelling of universal waste electronic devices, CRTs, and CRT glass in section 66273.34(h) is outside the scope of the proposed regulatory text and remains as it is.

However, DTSC has revised the regulatory text in section 66273.34(g) regarding the labelling requirement for PV modules to clarify that photovoltaic modules that are contained or placed within a designated area demarcated by boundaries be clearly labeled as “Universal Waste-PV module(s),” thereby allowing PV module waste to be placed near or next to other universal wastes as long as the wastes are clearly segregated by boundaries and are clearly labeled.

B. APPROVAL

Comment Summary:

The comment supports DTSC's clarification to label pallets or containers of PV modules instead of individual photovoltaic modules in section 66273.34(g) regarding labeling/marketing requirements for universal waste PV modules.

Comment: 2-5-12

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment expresses approval of the language for labeling/marketing requirements of universal waste PV modules DTSC proposed in the proposed regulation.

VIII. Recordkeeping/Tracking Universal Waste Shipments

A. TRACKING INCOMING SHIPMENT REQUIREMENTS ARE EXCESSIVE AND SERVE NO PURPOSE

Comment Summary:

The comments state that the tracking requirements in section 66273.39 already exist for other universal wastes; however, tracking incoming universal wastes is excessive, serves no useful purpose, and imposes an unreasonable burden for handlers, such as household hazardous waste facilities and solid waste facilities. The type and amount of wastes are recorded when the wastes are shipped. There is no justification or benefit for tracking these wastes on an incoming basis.

Comments: 2-2-48, 2-2-49

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

B. TRACKING PV MODULES BY TYPE IS EXCESSIVE AND BURDENSOME

Comment Summary:

The comment states that tracking PV modules by "type" in section 66273.39 regarding tracking universal waste shipments is excessive and burdensome.

Comment: 2-2-50

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

C. REMOVING TRACKING REQUIREMENTS

Comment Summary:

The comments suggest that sections 66273.39(a), regarding receipt of universal waste shipments, and 66273.39(b), regarding receipts of universal wastes from household generators and conditionally exempt small quantity universal waste generators, be removed from section 66273.39 for PV modules and all other universal wastes in order to make tracking less burdensome.

Comments: 2-2-10, 2-2-51

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

IX. Universal Waste Transporters

A. TRANSPORT THRESHOLD

Comment Summary:

The comment states that the maximum weight of 220 pounds for transporting PV modules is going to hinder 'convenient' recycling. If an installer goes to a site to replace 10 panels and cannot bring the 10 panels being replaced back in one trip, this would be an inconvenience and disruptive to the recycling process.

Comment: 2-1-3

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed the provisions in the proposed regulation that did not change from the initial version released for public comment on April 19, 2019. As such, the comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

B. INCREASE THE ALLOWABLE TREATMENT METHODS

Comment Summary:

The comment suggests increasing the allowable treatment methods under the universal waste standards.

Comment: 2-2-11

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment did not clearly address the specific authorized treatment methods that were proposed in the regulation and did not provide examples of additional treatment methods to be authorized under universal waste. Therefore, no regulatory text changes were made.

X. Removal Activities

A. REMOVING USER-REPLACABLE COMPONENTS

Comment Summary:

The comment asserts that the allowance for removal of user-replaceable components is helpful but suggests not to include ancillary components in the definition of PV modules.

Comment: 2-2-52

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The proposed regulation is clear that removal activities specified in section 66273.71 are intended for the photovoltaic system, not for photovoltaic modules. The revised definition of PV module as specified in sections 66260.10 and 66273.9 only includes integrated components that cannot be separated without breaking the PV module glass. As such, ancillary components which are typically removed for replacement during the normal operation and maintenance are not a part of PV module, but a part of the PV system. Therefore, no regulatory text change is made.

XI. Disassembling/draining activities

A. DISMANTLING PV MODULE INTEGRATED DEVICE

Comment Summary:

The comments suggest that DTSC authorize dismantling of PV module integrated devices in section 66273.72 regarding disassembling of PV modules if the definition of PV module is not modified in the proposed regulation. The comments suggest either adding a new section that is specific for disassembling of PV module integrated devices or including the term “photovoltaic module integrated device” in the existing section for disassembling PV modules. The comments assert that such authorization would improve clarity for the regulated community and facilitate recycling of such devices, which are a growing category of consumer product, are low hazard, and are produced by a wide variety of generators.

Comments: 2-5-6, 2-5-9, 2-5-10, 2-5-14, 2-5-15

Response:

DTSC reviewed the comments and has determined that no regulatory text change is necessary in section 66273.72 regarding the authorization for disassembling of PV

module integrated devices. It is not necessary because DTSC removed the definition of the term “Photovoltaic module integrated device” from the proposed regulatory text in sections 66260.10 and 66273.9 and its corresponding language in section 66273.7.1(b)(8) that specifies that such devices are not applicable to be managed as PV module. DTSC then revised the definition of the term “Photovoltaic module” as a device that contains one or more electrically connected PV cells with integrated components, such as housing or pocket holding the PV cells/modules, thereby allowing devices with PV cells/modules integrated to be managed as a PV module. As such, disassembling activities specified in section 66273.72 for PV module applies to devices that have PV cells or modules integrated but are not an electronic device.

B. ACCIDENTAL BREAKAGE DURING DISMANTLING ACTIVITIES

Comment Summary:

The comment suggests adding the sentence "Accidental breakage shall be managed as required in section 66273.33.6 and 66273.37." in section 66273.72(f)(1) regarding authorization for disassembling PV modules activities. Currently, section 66273.72(f)(1) specifies what DTSC authorizes as disassembling activities of a PV module, which do not require breaking the PV module glass. The comment asserts that there should be an allowance for accidental breakage and recommends adding such clause to section 66273.72(f)(1) as follows:

“(1) The universal waste handler who dismantles, removes, or otherwise manually segregates, components (e.g., glass panels, metal framing photovoltaic cells) of a PV module, but does not break the PV module glass. Accidental breakage shall be managed as required in section 66273.33.6 and 66273.37.”

Comments: 2-2-53, 2-2-54

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. Intentional breakage of photovoltaic modules during disassembling activities under section 66273.72 is not authorized as specified in section 66273.72(f)(1). Section 66273.72(f)(2)(D) further specifies requirements handlers that conduct disassembling activities must comply with to prevent releases of any constituents of the PV modules to the environment. Therefore, additional clarification in section 66273.72(f)(1) that specifies the management of PV modules from an accidental breakage is not necessary.

XII. Processing Activities

A. REMOVAL OF SECTION 66273.73(e)

Comment Summary:

The comment states that section 66273.73(e) was removed which provided many other methods for treatment and/or processing of PV modules. There are many methods for the recycling of PV modules beyond the allowance for physical disassembly including breakage that should be allowed provided the methods capture residuals and are not released to the environment.

Comment: 2-2-55

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. Physical treatment methods for photovoltaic modules that were initially proposed in sections 66273.73(e)(1) and 66273.73(e)(2) in the first version of the proposed regulation were incorporated in the newly renumbered section 66273.73(d) that specifies treatment methods for electronic device, CRT, and residual printed circuit board. Therefore, physical treatment methods authorized for PV modules have not changed in the revised version of the proposed regulation.

The regulatory text first proposed in section 66273.73(e)(3) regarding the disposal of PV modules after treatment in section 66273.73 was removed. DTSC concludes that after the treatment activities conducted per section 66273.73, only treatment residuals of a PV module remain. As such, it is no longer necessary to provide disposal requirements for PV modules. Instead, DTSC provided language for the management of treatment residuals in sections 66273.73(c)(1) and 66273.73(c)(2) of the revised proposed regulation.

B. HAZARDOUS WASTE FACILITY PERMIT

Comment summary:

The comment asserts that section 66273.73(d)(2) in the revised proposed regulation regarding treatment methods that universal waste handlers are not authorized to conduct under section 66273.73 requires a hazardous waste facility permit which is a lengthy and expensive process. The comment asserts that this limitation only encourages the development of treatment technologies outside of California.

Comment: 2-2-56

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. Under universal waste management requirements, the use of chemicals, including water, or heat is not authorized. DTSC determined these treatments to be high risk since the use of chemicals and heat alter the chemical composition of the materials, which can have a greater impact to human health and the environment. These activities are not prohibited by DTSC, but are prohibited under universal waste management standards, and are further specified in the renumbered section 66273.73(d)(2) in the proposed regulation. Facilities that conduct treatment using chemicals or heat are required to obtain a hazardous waste treatment permit or other form of authorization.

DTSC's proposed regulation for PV modules streamlines the waste management of hazardous waste PV modules and provides an alternative for the management of these wastes. By lowering management requirements for hazardous waste PV modules as universal waste, DTSC aims to lessen the regulatory burden of having to manage the hazardous waste PV modules as hazardous waste and hopes that more businesses will become available in California that handle, transport, treat, or recycle these wastes.

C. RESTRICTION ON THE USE OF CHEMICALS, WATER, OR HEAT STIFLE INNOVATION

Comment summary:

The comment states that the restrictions on use of chemicals, water, or heat to treat waste in section 66273.73 processing activities will stifle innovation to maximize valuable material recovery that may be employed. The restrictions on the processes and the application of chemicals, including water and external heat, will disincentivize many waste handlers and treatment facilities from accepting PV modules in their facilities. The comment further asserts that such restrictions would prevent washing of PV modules prior to processing and recycling to remove dirt and other contaminants.

Comment: 2-4-5

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The proposed regulation is clear that physical treatment methods for PV modules that were initially proposed in sections 66273.73(e)(1) and 66273.73(e)(2) in the first version of the proposed regulation were incorporated in the newly renumbered section 66273.73(d) that specifies treatment methods for electronic devices, CRTs, and residual printed circuit boards. Therefore, physical treatment methods authorized for PV modules have not changed in the revised version of the proposed regulation.

DTSC removed the regulatory text first proposed in section 66273.73(e)(3) regarding the disposal of PV modules after treatment in section 66273.73. DTSC concluded that after the treatment activities conducted per section 66273.73, only treatment residuals

of a PV module remain. As such, it is no longer necessary to provide disposal requirements for PV modules. Instead, DTSC provided language for the management of treatment residuals in sections 66273.73(c)(1) and 66273.73(c)(2) of the revised proposed regulation.

Under universal waste management requirements, the use of chemicals, including water, or heat is not authorized. DTSC determined these treatments to be high risk since the use of chemicals and heat alter the chemical composition of the materials, which can have a greater impact to human health and the environment. These activities are not prohibited by DTSC but are prohibited under universal waste management standards. Therefore, facilities that conduct treatment using chemicals or heat are required to obtain a hazardous waste treatment permit or other form of authorization. Therefore, DTSC did not make any changes to the regulation in response to this comment.

XIII. Statute

A. SENATE BILL 489 FULFILLMENT AND INDUSTRY ENGAGEMENT

Comment Summary:

The comment is informing DTSC of the commenters' engagement to the PV module universal waste rulemaking since the drafting of Senate Bill (SB) 489 (Chapter 419, Statutes of 2015) and promoting PV module recycling.

Comment: 2-4-23

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment informs DTSC of the industry's engagement in the PV module rulemaking since the drafting of SB 489. The comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

XIV. Universal Waste PV Modules

A. MANUFACTURER RESPONSIBILITY

Comment Summary:

The comment asserts that the focus for the end-of-life PV modules rulemaking should be on manufacturing responsibility.

Comment: 2-3-3

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

B. PROMOTE RECYCLING

Comment Summary:

The comments assert that the proposed regulatory text in section 66273.73 requires recyclers to only use existing technology developed for printed circuit boards, TV displays, and other existing e-waste. This wording will have unintended, negative consequences by preventing the use of newer, innovative and more effective methods for PV module recycling. These newer methods would have a positive environmental impact by allowing more effective separation methods, increasing the amount of recoverable material.

Comments: 2-4-6, 2-4-7

Response:

DTSC reviewed the comments and has determined that no regulatory change is necessary. The comments state that using existing treatment methods as specified in section 66273.73 poses negative consequences by preventing the use of newer, innovative, and more effective methods for PV module recycling.

The proposed regulation is clear that physical treatment methods for PV modules that were initially proposed in sections 66273.73(e)(1) and 66273.73(e)(2) in the first version of the proposed regulation were incorporated in the newly renumbered section

66273.73(d) that specifies treatment methods for electronic devices, CRTs, and residual printed circuit boards. Therefore, physical treatment methods authorized for PV modules under universal waste have not changed in the revised version of the proposed regulation.

DTSC removed the regulatory text first proposed in section 66273.73(e)(3) regarding the disposal of PV modules after treatment in section 66273.73. DTSC concluded that after the treatment activities conducted per section 66273.73, only treatment residuals of a PV module remain. As such, it is no longer necessary to provide disposal requirements for PV modules. Instead, DTSC provided language for the management of treatment residuals in sections 66273.73(c)(1) and 66273.73(c)(2) of the revised proposed regulation.

C. RECYCLING DOWNFALL

Comment summary:

The comment states that haulers are having to deal with the downfall of the recycling market, rising costs to conduct business, and increased obligations from CalRecycle.

Comment: 2-3-1

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

D. CONSEQUENCES OF PV MODULES AS UNIVERSAL WASTE

Comment Summary:

The comment states that having to manage PV modules as universal waste means raising garbage prices to accommodate the regulations or fighting with cities to keep PV modules out of the contract and still does not find a recycling facility/grave for them.

Comment: 2-3-2

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC

summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

XV. Waste Exclusion Alternative

A. DISAPPROVAL ON THE ASSUMPTIONS USED IN THE ECONOMIC AND FISCAL IMPACT STATEMENT

Comment summary:

The comments object to the assumptions DTSC made in the Economic and Fiscal Impact Statement and Appendix, which led DTSC to reject waste exclusion alternative. The comments assert that one reason DTSC did not consider the waste exclusion alternative is that the agency is unaware of manufacturers and other businesses outside California that are recovering usable materials from end-of-life PV modules. The comments state that another reason DTSC did not consider the waste exclusion alternative was that the agency is unaware of manufacturers and other businesses inside California recovering usable materials from end-of-life PV modules. The comments also state that DTSC already has a number of exclusions already in place, and therefore the argument that enforcement is difficult is questionable.

Comments: 2-4-15, 2-4-16, 2-4-17, 2-4-18

Response:

DTSC respectfully disagrees with the comment that assumptions made in the economic and fiscal impact analysis and related documents led DTSC to reject the waste exclusion alternative for the proposed regulation. To further clarify, DTSC has added an addendum to the ISOR to provide additional reasons why the waste exclusion alternative was not selected and public noticed the addendum together with the proposed regulation text during the third public comment period that was noticed on October 18, 2019. The addendum is available on DTSC's website at:

<https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/10/03.-2019.10.18-PVM-ISOR-Addendum-Final-1.pdf>

XVI. General

A. INTRODUCTION

Comment Summary:

The comments are introductory language of the comment letters that were submitted for the revised proposed regulation released for public comment in September 2019.

Comments: 2-2-1, 2-2-2, 2-2-12, 2-4-1, 2-5-1

Response:

DTSC acknowledges the comments and determined that no regulatory change is necessary. The comments are introductory language of the comment letters indicating that the comments provided refer to the proposed regulation for the management of hazardous waste PV modules as universal waste in California.

B. SUPPORT AND ENCOURAGEMENT OF THE PROPOSED REGULATION

Comment Summary:

The comments express support and encouragement of the proposed regulations for the management of hazardous waste PV modules as universal waste.

Comments: 2-2-3, 2-2-14, 2-4-2, 2-5-2, 2-5-17

Response:

DTSC acknowledges and appreciates the comments encouraging DTSC of the proposed regulations for the management of hazardous waste PV modules as universal waste. DTSC made no changes to the proposed regulation or supporting documents in response to the comments.

C. APPROVAL

Comment Summary:

The comment is the approval of changes DTSC made in the proposed regulation text for universal waste management of PV modules.

Comment: 2-2-4

Response:

DTSC acknowledges and appreciates the comment that DTSC incorporated significant changes in the revision of the proposed regulation for PV modules as universal waste which allows less stringent and less costly management of the waste. DTSC made no changes to the proposed regulation or supporting documents in response to the comment.

D. DISAPPROVAL

Comment Summary:

The comment is disapproval of the changes DTSC made to the proposed regulation for the management of PV modules as universal waste during the 15-day comment period, that was public noticed on September 9, 2019. The comment asserts that DTSC did not address the comments that were submitted previously during the 52-day comment period, that was public noticed on April 19, 2019.

Comment: 2-4-3

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is outside the scope of topics subject to public comment for the version of the proposed regulation released on September 9, 2019. DTSC summarized and responded to the comments that were submitted during the initial 52-day comment period to in the response to comments and are provided in the final rulemaking package submitted to the Office of Administrative Law. Therefore, DTSC did not make any changes to the regulation in response to this comment.

E. ADDITIONAL INFORMATION

Comment Summary:

The comment is introductory language made to the revised proposed regulation during the first 15-day comment period, stating that additional information is provided in the comment letters that were submitted.

Comment: 2-4-4

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment states that there is additional information provided in the comment letters submitted during the first 15-day public comment period, that was public noticed on September 9, 2019. DTSC has identified and addressed the additional comments that were submitted for the first 15-day comment period throughout this response to comment document accordingly.

F. THANK YOU

Comment Summary:

The comments express appreciation of the proposed regulations for the management of hazardous waste PV modules as universal waste.

Comments: 2-2-13, 2-5-16

Response:

DTSC acknowledges these comments as gratitude. DTSC made no changes to the proposed regulation or supporting documents in response to these comments.