

FOURTH PUBLIC COMMENT PERIOD: RESPONSE TO COMMENTS

December 24, 2019 – January 8, 2020

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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 December 24, 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 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; and
- 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 January 8, 2020. There was one (1) written comment letter 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;
- Second Public Comment Period: Response to Comments, September 9, 2019 - September 24, 2019; and,
- Third Public Comment Period: Response to Comments, October 18, 2019 – November 2, 2019.

Each comment letter was issued a number starting with “4.” DTSC subsequently numbered each of the comments contained in the letter and collated similar comments together. For example, the designation “4-1-1” means “December 24, 2019 – January 8, 2020” 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	Solar Energy Industries Association; California Solar Storage Association; National Stewardship Action Council; California Product Stewardship Council	Evelyn Butler; Benjamin Davis; Rick Umoff; Heidi Sanborn; Doug Kobold	10

II. Definitions

A. DISAPPROVAL FOR THE DEFINITIONS OF PV MODULE AND PV SYSTEM

Comment Summary:

The comment states that the proposed definition of “Photovoltaic system” does not align with what is known in the marketplace and scientific community and is confusing to industry, recyclers, and the general public. The comment states that DTSC’s proposed definition of “Photovoltaic system” is actually the definition of “Photovoltaic module.” The comment states that the proposed regulation includes a definition that is not in the scope of what DTSC is authorized to draft.

Comment: 4-1-5

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed provisions in the proposed regulation which did not change from the version that was released on October 18, 2019. Therefore, the comment is outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods 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 proposed regulation in response to this comment.

III. Notification and Reporting Requirements for Universal Waste Handlers

A. IMPACT OF ANNUAL REPORT THRESHOLD ON BUSINESSES THAT TRANSPORT PV MODULES TO INSTALLATION SITES

Comment Summary:

The comment states that the 100-kilogram (220 pounds) annual reporting threshold will have a significant impact on thousands of businesses that use tens of thousands of vehicles and employees to transport PV modules to installation sites and to business operation sites.

Comment: 4-1-7

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed provisions in the proposed regulation which did not change from the version that was released on October 18, 2019. Therefore, the comment is outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods in the response to comments and are provided in the final rulemaking package submitted to Office of Administrative Law. Therefore, DTSC did not make any changes to the proposed regulation in response to the comment.

B. ANNUAL REPORTING THRESHOLD DELAYS PV MODULES DESTINIED FOR RECYCLING

Comment summary:

The comment states that the annual threshold restriction would cause PV modules destined for recycling to be held for long periods of time until the properly permitted handler, vehicle, collection location, or other means to transport the product to a recycling treatment site is available and able to comply with the 30-day prior notification required by DTSC. This delay may leave PV modules at the installation or site of origination vulnerable or unprotected from damage or other consequences, which in turn may reduce the recovery of material due to glass breakage, partial removal or damage to the frame or wiring, and/or encourage the employment of inappropriate storage and handling processes.

Comment: 4-1-8

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed provisions in the proposed regulation which did not change from the version that was released on October 18, 2019. Therefore, the comment is outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods in the response to comments and are provided in the final rulemaking package submitted to Office of Administrative Law. Therefore, DTSC did not make any changes to the proposed regulation in response to the comment.

IV. Processing Activities

A. RESTRICTION ON THE USE OF CHEMICALS, WATER, OR HEAT

Comment summary:

The comment states that the proposed language in section 66273.73 regarding processing activities restricts the use of chemicals, heat, or water to recycle PV modules, thus allowing PV recyclers to only use existing technology of mechanical means as developed for printed circuit boards, TV displays, and other existing e-waste. The comment states that proposed treatment activities do not allow for new businesses to be established in California. The comment then states that modern, cost-effective, automated process-oriented facilities could not find a home in California where large amounts of solar are installed to meet clean energy and resilience goals of the state based upon DTSC's current draft regulation.

Comment: 4-1-6

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed provisions in the proposed regulation which did not change from the version that was released on October 18, 2019. Therefore, the comment is outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods in the response to comments and are provided in the final rulemaking package submitted to Office of Administrative Law. Therefore, DTSC did not make any changes to the proposed regulation in response to the comment.

V. Addendum to the Initial Statement of Reasons (ISOR)

A. HAZARDOUS CHARACTERISTIC OF PV MODULES

Comment summary:

The comment states that in the addendum to the ISOR, DTSC references a study from 2001 which reflects that at the time of publication, some materials in PV modules "may exceed the federal threshold levels for toxicity of regulated materials" upon which DTSC determined that the waste exclusion alternative was not a viable alternative. It must be clarified that PV modules are not a United States Environmental Protection Agency (U.S. EPA) listed hazardous waste and do not appear on any of the relevant U.S. EPA

Lists (F, K, P or U). The comment states that DTSC should conduct an analysis on the hazardous determination of PV modules.

Comment: 4-1-9

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment addressed provisions in the proposed regulation which did not change from the version that was released on October 18, 2019. Therefore, the comment is outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods in the response to comments and are provided in the final rulemaking package submitted to Office of Administrative Law. Therefore, DTSC did not make any changes to the proposed regulation in response to the comment.

VI. General

A. INTRODUCTION

Comment Summary:

The comment is the introductory language of the comment letter that was submitted for the revised proposed regulation released for public notice on December 24, 2019.

Comment: 4-1-1

Response:

DTSC reviewed the comment and has determined that no regulatory change is necessary. The comment is the introductory language of the comment letter, indicating that the comment provided refers 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 comment expresses support and encouragement of the proposed regulation for the management of hazardous waste PV modules as universal waste.

Comment: 4-1-10

Response:

DTSC acknowledges and appreciates the comment encouraging DTSC's proposed regulation 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 comment.

C. DISAPPROVAL OF THE CHANGES IN THE PROPOSED REGULATION TEXT

Comment Summary:

The comments state that the changes DTSC made to the proposed regulation for the management of PV modules as universal waste are not substantive and only address typographical and reference errors. The comments state that DTSC did not fully address the requested rulemaking changes from the third public comment period, which was public noticed on October 18, 2019, which are critical to the PV module industry and the future of PV module recycling in California. The commenter attached the comment letter that was submitted during the third comment period, which was public noticed on October 18, 2019, and requests that DTSC take them into consideration during this comment period.

Comments: 4-1-2, 4-1-3, 4-1-4

Response:

DTSC reviewed the comments and has determined that no regulatory change is necessary. DTSC agrees that only typographical and reference errors were addressed in the proposed regulation text. The comments requested that DTSC address the provisions in the proposed rulemaking that did not change from the version which was released on October 18, 2019. These comments are outside the scope of topics subject to public comment in the fourth public comment period, which was public noticed on December 24, 2019. DTSC summarized and responded to the comments that were received during the first, second, and third comment periods in the response to comments and are provided in the final rulemaking package submitted to Office of Administrative Law. Therefore, DTSC did not make any changes to the proposed regulation in response to the comment.