

Renewable Energy: California Department of Toxic Substances Control Classifies Solar Panels as Universal Waste



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10/30/2020

The California Department of Toxic Substances Control (“DTSC”) announced in an October 26th news release that it was classifying hazardous waste (i.e., discarded) solar panels as universal waste.

DTSC states that the intent is to “promote solar panel recycling and reuse and to keep them out of landfills.”

Solar panels are commonly denominated as photovoltaic modules (“PV”). They consist of photovoltaic cells which primarily encompass silicon materials and are connected by electrical contacts. Such contacts consist of various metals. DTSC states that some PV modules may exhibit the hazardous waste characteristic of toxicity because of the presence of certain metals.

PV modules are stated to have an expected life service of 30 years.

DTSC stated that PV modules may become a waste at various stages, which include:

- Manufacturing
- Installation
- Replacement

The increase in demand for solar energy (and, therefore, the associated PV modules, etc.) is deemed to have resulted in an increased number of installations and operation of such equipment. As a result, DTSC has previously stated that the rule was intended to ensure PV modules have a pathway for streamlined management once they reach the end of their useful life.

The federal and state (including California) universal waste regulations (found within the RCRA regulations) are intended to streamline the hazardous waste management standards for certain categories of hazardous wastes that are commonly generated by a wide variety of establishments. The streamlined regulations are intended to:

- promote the collection and recycling of universal waste,
- ease the regulatory burden on the collection of these wastes and transportation of these wastes, and
- encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal landfills.

Examples of potential hazardous wastes that have previously been designated as universal waste include:

- Batteries
- Pesticides
- Mercury-Containing Equipment
- Lamps
- Aerosol Cans

DTSC states that California is the first state to classify solar panels as universal waste.

A copy of the final Regulatory Text can be downloaded [here](#) and Final Statement of Reasons [here](#).