New California rule will facilitate the recycling of solar panels

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A new rule is set to take effect in California on Jan. 1, 2021 that will allow generators of decommissioned solar panels (photovoltaic or PV modules) to manage them more economically as universal waste as opposed to hazardous waste under current California law.

This is the first rule in the country to identify solar panels as universal waste to reduce management burdens and facilitate recycling, according to JD Supra.
Close to 100 percent of the materials in a solar panel are recyclable or reusable, but the panels often contain heavy metals such as cadmium, copper, lead, selenium and silver. The presence of those metals may cause discarded panels to exhibit the hazardous waste characteristic of toxicity, and thus be classified as hazardous waste under the federal Resource Conservation and Recovery Act (RCRA) and California’s more stringent Hazardous Waste Control Law.

This classification makes it expensive and burdensome to store, handle and transport end-of-life panels for recycling or disposal under current regulations.

Starting on January 1, 2021, decommissioned solar panels will be regulated like other universal wastes in California, which include batteries, electronic devices, mercury containing equipment, lamps, cathode ray tubes, and aerosol cans. The new rule will make it less expensive and burdensome to collect, process and recycle them, JD Supra says.

Among other advantages provided by the new rule, storage of decommissioned panels will be allowed for up to one year and using hazardous waste manifests and hazardous waste transporters will not be required. There also will be no storage quantity limitations.

Other key components of the regulations for handlers include notification and annual reporting to the CA Department of Toxic Substances Control, labeling (Universal Waste–PV Modules), employee training, handling to prevent breakage and releases, response to releases, containment and recordkeeping. Universal waste handlers are also granted authority to conduct certain treatment activities, including removal of user replaceable panel components and panel dismantling removing or physically segregating components (glass panels, metal framing, PV cells, and pockets).

Physical treatment activities, including separation, cutting, sawing, breaking, shredding, crushing, screening, and compacting are also allowed. However, the rule prohibits universal waste handlers from using or applying chemicals, including water, and/or external heat to solar panels.