

NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Office of Policy
1001 I Street, 22nd Floor
Sacramento, CA 95812

Project Title: Proposed regulations, Standards for the Management of Hazardous Waste Solar Modules

Project Location: Statewide

County: This rulemaking affects all counties in California.

Project Description: DTSC has the responsibility to implement, maintain, and enforce the hazardous waste regulations in California. Solar modules may be hazardous waste pursuant to existing laws and regulations. Because of the potential for future large numbers of generators and volumes of solar modules produced in California, DTSC finds it necessary to adopt the proposed universal waste standards for these wastes that (1) create a regulatory scheme that is tailored to these waste streams, and (2) is permissible under the federal RCRA authorization program. The universal waste approach proposed is the only regulatory scheme that is allowed under RCRA authorization where both RCRA and non-RCRA wastes can be managed, and that is practical given the large volumes of waste solar modules that are anticipated in the next five to 10 years.

In addition, DTSC will create, through regulation, an exemption in section 66261.6 similar to the exemption for scrap metal with the added caveat that the solar modules must be destined for reclamation. Reclamation is a form of recycling that requires that the solar modules be recycled to recover usable material and hazardous constituents which caused the solar module to be classified as hazardous waste. Although not affected directly by the proposed regulations, the facilities that reclaim the solar modules must meet the protective standards for operating such facilities.

This will provide alternative management standards for hazardous waste solar modules, either through a conditional exemption for solar modules destined for reclamation or as universal wastes for solar modules destined for other forms of recycling, including reuse. The traditional hazardous waste standards work well for most industrially-generated hazardous wastes. However, they do not work well when applied to a broad spectrum of generators that includes households and service-oriented businesses, while often the full hazardous waste standards can be a disincentive to proper management. To successfully protect human health and the environment, DTSC proposes to adopt regulations that accommodate these non-traditional hazardous waste generators, as well as provide a regulatory scheme to facilitate getting waste solar modules to appropriate recycling facilities, and not illegally disposed in municipal solid waste landfills.

Solar modules can be recycled and portions of the modules can be reclaimed for use in new modules, or used in other products such as fiberglass. DTSC has evaluated the benefits of creating regulatory mechanisms that will both encourage recycling and facilitate collection and transport. The new regulatory mechanisms proposed provide that standards for such activities be protective of human health and the environment.

The proposed regulations will:

- Establish a condition exemption in California Code of Regulations, title 22, division 4.5¹, chapter 11, section 66261.6 (recyclable materials) for non-RCRA² hazardous waste solar modules that are collected, transported and recycled by being reclaimed as part of a reclamation program administered by a solar module vendor (as defined in the proposed regulations).
- Designate hazardous waste solar modules, that are either RCRA hazardous waste or non-RCRA hazardous waste, as universal waste provided that the solar modules are recycled, not disposed, and are managed in accordance with the existing requirements of chapter 23 (Standards for Universal Waste Management).
- Maintains the existing hazardous waste requirement for recycling activities, including reclamation activities and other forms of hazardous waste treatment activities, which require a hazardous waste facility permit or other grant of authorization from DTSC.

The proposed regulations will achieve a desired goal of protecting the environment by reducing the number of solar modules disposed in landfills. To a large extent, the universal waste approach that has been proposed in these regulations for solar modules has been chosen because it has already been demonstrated that it will successfully achieve

¹ Unless otherwise specified, all regulatory citations from this point forward are to the California Code of Regs., tit. 22, div. 4.5.

² RCRA means the federal Resource Conservation and Recovery Act.

DTSC's goal of protecting human health and the environment while ensuring the regulatory requirements are a minimal burden. Also, because solar modules are currently generated in small quantities by a wide variety of entities, this waste is more appropriately managed under the universal waste regulations.

Discarded solar modules can be characteristically hazardous. However, generators of these wastes frequently are not aware that they are hazardous and often dispose of them in the municipal solid waste landfills. Once in the landfill, the hazardous constituents in these devices (primarily heavy metals such as lead and cadmium) can leach into and contaminate the ground water. DTSC believes that placing these wastes in the universal waste category will facilitate the segregation, collection, and proper recycling and disposal of these wastes. Furthermore, DTSC believes that these wastes fit the criteria that the U.S. EPA set forth for designating waste as universal wastes, which are the same criteria that DTSC has established for adding universal waste through regulation.

The proposed regulations contain necessary requirements to be applied directly as conditions for obtaining the "self-implementing" exemption. This alternative could effectively reduce or remove the regulatory requirements placed on the generators and transporters of solar modules. However, this alternative does not alleviate the requirement for a solar modules recycler (i.e., a facility that conducts treatment, including reclamation processes) to have a hazardous waste facility permit or other grant of authorization, if such activities are conducted in California. In addition, export to foreign countries will continue to be regulated as are other non-RCRA hazardous waste exports.

It is anticipated that with the increasing volumes of waste solar modules over time that recycling opportunities will also increase as new and existing recycling businesses enter the solar module recycling market. And, given that solar modules can be recycled and that portions of the modules can be reclaimed for use in new modules or used in other products such as fiberglass, it is timely for DTSC to evaluate the benefits of creating regulatory mechanisms that will both encourage recycling and facilitate collection and transport. This new regulatory mechanism will also provide standards for such activities that will be protective of human health and the environment.

Based on DTSC's experience in managing other similar waste streams, such as electronic wastes, DSTC believes that waste solar modules fit well within an alternative set of management standards which are commensurate with the risks posed in managing such modules. In addition, encouraging the recycling of solar modules conserves valuable resources which further California's renewable energy generation goals.

Name of Public Agency Approving Project: Department of Toxic Substances Control, Office of Policy, 1001 I Street, Sacramento, CA 95812

Name of Person or Agency Carrying Out Project: Department of Toxic Substances Control, Office of Policy, 1001 I Street, Sacramento, CA 95812

Exemption Status: (check one)

- Ministerial [PRC, Sec. 21080(b)(1); CCR, Sec. 15268]
- Declared Emergency [PRC, Sec. 21080(b)(3); CCR, Sec.15269(a)]
- Emergency Project [PRC, Sec. 21080(b)(4); CCR, Sec.15269(b)(c)]
- Categorical Exemption: [State type and section number]
- Statutory Exemptions: [State code section number]
- General Rule [CCR, tit 14, Sec. 15061(b)(3)]

Exemption Title: With certainty, no possibility of a significant effect on the environment.

Reasons Why Project is Exempt: DTSC has determined that,

- Hazardous waste solar modules are solid materials that do not contain liquids.
- The collection and transport of hazardous waste solar modules are low-hazard activities.
- The management standards for hazardous waste solar modules do not warrant the same level of regulatory standards as other "traditional hazardous wastes."
- The regulatory standards imposed by this project, such as containment, labeling, personnel training, and spill response standards, eliminate possible environmental impacts.
- These standards will provide streamlined requirements for the collection and transportation of hazardous waste solar modules, but will require full hazardous waste storage and treatment standards at the destination facility.
- The proposed regulations prohibit the disposal of hazardous waste solar modules to municipal solid waste landfills (hazardous waste solar modules may be disposed in hazardous waste facilities).
- The management standards for hazardous waste solar modules addressed by these regulations do not pose a significant threat to human health and safety.

Given the controls established in the regulations, DTSC has determined that implementation of the regulations will have no possibility of creating a significant effect on the environment.

Evidence to support the above reasons is documented as part of the rulemaking file, R-2010-01, and is available for review at:

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Date Received For Filing and Posting at OPR: