



Fact Sheet, February, 2009

Managing Empty Containers

Regulatory Assistance Officer's Introduction

The Department of Toxic Substances Control (DTSC) has prepared this fact sheet to provide an overview of general information about the management of empty containers. Throughout this fact sheet, citations from the California Code of Regulations and the California Health and Safety Code are linked to databases containing those citations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

Background:

Properties throughout California have been contaminated because containers holding residual hazardous materials at the sites were not managed properly. Ironically, operators at many of these sites were recycling and reconditioning drums and containers, activities that we would like to encourage. Since much of the contamination at drum reconditioning sites resulted from mismanaging hazardous material residues that were removed from “empty” containers, DTSC developed regulations that set forth a definition of “empty container.” These regulations establish management practices, which, if met, exempt “empty” containers from further regulation under the hazardous waste regulations. Only containers that once held hazardous materials or hazardous wastes are subject to these regulations. The regulations are found in Title 22, California Code of Regulations, section [66261.7](#).





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Definition of a Container:

A container is any portable device in which material can be stored, handled, treated, transported, recycled, or disposed of. The definition of container is found in California Code of Regulations, Title 22, section [66260.10](#). Containers range in size from small lab bottles to trucks and rail cars, but the most common containers used for hazardous waste and hazardous materials management are 55 gallon steel or plastic drums and inner liners from these drums. The empty container management requirements discussed in this fact sheet pertain to containers and their liners that are less than 110 gallons in volume. Those who manage containers with a capacity of greater than 110 gallons (“bulk containers”) must follow the requirements given in California Code of Regulations, title 22, section [66261.7\(p\)](#).

Definition of an “Empty” Container:

The strategy adopted by DTSC to define an “empty” container or container liner was to establish standards that require the generator (the person who uses the contents of the container) to empty the container of material as much as is reasonably possible. This standard is more stringent than the federal empty standard (found in Title 40 Code of Federal Regulations, section 261.7), which allows up to one inch or 3% of the total weight of the container’s contents to remain in the container. The California regulation sets three standards to define an empty container, each based on the type of material held by the container:

Containers That Held Pourable Materials:

For containers that held a material that can be readily poured, all material must be removed by any practicable means (including draining, pouring, pumping or aspirating) before the container can be considered empty. In regards to draining, a container is empty when there is no longer a continuous stream of material coming from the opening when the container is held in any orientation (see the first question in the list of commonly asked questions at the end of this document).

Containers Holding Non-Pourable Materials:

For containers that previously held materials that are non-pourable, no hazardous material shall remain in the container that can feasibly be removed by physical methods, including scraping and chipping, but not rinsing. This standard applies to materials that pour slowly or don’t pour at all from the container, including, but not limited to, viscous materials, solids which have “caked up” inside the container, and non-pourable sludges.

Containers Holding Acute or Extremely Hazardous Waste:

Containers which previously held acute or extremely hazardous waste are considered empty only if the container has been triple-rinsed using a solvent capable of removing the material, or cleaning by another method which is proven to achieve equivalent removal to triple-rinsing. These activities may require formal authorization (permitting) by DTSC or the CUPA. This standard is similar to the federal standard.





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MANAGEMENT PRACTICES

In order to retain the exemption from regulation, “empty” containers must be managed according to the following management practices:

- By reclaiming the container’s scrap value onsite;
- By sending the container to a person who reclaims the container’s scrap value;
- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.

Note that it is not mandatory for generators to manage empty containers under the provisions of this section. The section allows the generator to use management standards that are less stringent than hazardous waste standards. A generator may instead decide to recycle containers onsite per the subsequent onsite accumulation of waste oil or other compatible waste or product.

Containers Being Sent Back to the Manufacturer for Refilling:

Containers that are sent back to the supplier for the purpose of being refilled are exempt from DTSC regulations if all of the following requirements are met:

- The container was last used to hold a hazardous material acquired from a supplier of hazardous materials;
- The container is empty per the federal standards in Section 261.7 of Title 40 of the Code of Federal Regulations;
- The container is returned to a supplier of hazardous materials for the purpose of being refilled, as long as the supplier's reuse of the container is in compliance with the Department of Transportation (DOT) requirements for shipping containers found in Section 173.28, Title 49, Code of Federal Regulations;
- The container is not treated prior to being returned to the supplier of hazardous materials, except as authorized by section 66261.7.
- The container is not treated (except as authorized section 66261.7) by the supplier of hazardous materials without obtaining specific authorization from the Department; and
- The container is refilled by the supplier with hazardous material which is compatible with the hazardous material which the container previously held unless the container has been adequately decontaminated.

Containers of Five Gallons or Less In Capacity:

“Empty” containers of five gallons or less in capacity can be managed by one of the following methods:

- By reclaiming the container’s scrap value onsite;
- By sending the container to a person who reclaims the container’s scrap value;





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- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.
- By disposing of the container at an appropriate solid waste facility;

An “appropriate solid waste facility” is one that can accept the empty, unrinsed containers. Some solid waste facilities and municipal waste haulers will not accept empty, unrinsed hazardous materials containers, so generators should check with their local solid waste management agencies before disposing of these containers as solid wastes.

Special Provisions for Specific Containers

Household Containers

Emptied household hazardous material and pesticide containers with a capacity of five gallons or less are exempt from regulation if the container was emptied by removing all of the contents that can be removed using practices commonly employed to remove materials from that type of container.

Compressed Gas Cylinders

Compressed gas cylinders are exempt from regulation when the pressure in the cylinder approaches atmospheric pressure.

Aerosol Containers

Aerosol containers are exempt from regulation when the container is emptied to the maximum extent practical under normal use provide that:

- The empty can is not regulated by the federal law under the Resource Conservation and Recovery Act (RCRA); and
- The aerosol container did not previously hold an acute or extremely hazardous waste.

Aerosol containers with hazardous material remaining in the container, including those due to a clogged nozzle, damaged valve, or loss of propellant, are not exempt from regulation and must be managed as hazardous wastes or managed as universal wastes pursuant to California Health and Safety Code section [25201.16](#).

Containers Made of Absorptive Materials:

Containers made of absorptive materials such as wood, cardboard, cloth or paper cannot be exempt from regulation if the container was in direct contact with and has absorbed the hazardous material.





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Pesticide Containers from Commercial Farms

Pesticide containers or the inner liners from pesticide containers that have been generated by commercial farming operation do not have to be regulated as hazardous waste if they are managed according to California Code of Regulations, title 22, section [66262.70](#). The containers must be emptied by removing all of the contents that can be removed by draining, pouring, pumping, or aspirating. The containers then must be triple-rinsed with a liquid capable of dissolving the pesticide that the containers held. The rinsate must be managed properly, such as placing it back into the pesticide sprayer for application. After triple-rinsing, the containers must be punctured, shredded, crushed, or otherwise changed so as to prevent subsequent use or reuse. They then can be disposed of, recycled by reclaiming their scrap value or reused in accordance with the provisions of Health and Safety Code section [25143.2\(d\)\(6\)](#).

Bulk Containers

Bulk containers are those with a capacity of 110 gallons or more, including tanker trucks, roll-off bins and railroad cars (see the definition in California Code of Regulations, title 22, section [66260.10](#)). They are included in the contaminated-container regulations, but the requirements are different from smaller containers because they are not normally discarded. If you manage bulk containers, be sure to carefully read the regulations relating to them found in the California Code of Regulations, title 22, section [66261.7\(p\)](#).

Items Not Considered Containers by this Regulation:

Some containers are regulated by other sections of the federal regulations, the California Code of Regulations or the California Health and Safety Code, so the standards outlined in the contaminated container regulations cannot be used to exempt them from regulation. The contaminated container regulations do not apply to the following items:

- Used oil filters are managed per California Code of Regulations, title 22, section [66266.130](#))
- PCB (polychlorinated biphenyl)-contaminated electrical equipment (transformers, circuit-breakers, etc.) managed under:
- 40 Code of Federal Regulations section [761.60](#); Federal Toxic Substance Control Act requirements for PCBs,
- California Code of Regulations, title 22 sections [66261.24\(a\)\(2\)](#): Soluble Threshold Limit Concentration and Total Threshold Limit Concentration values, [66268.29\(b\)](#)
- California PCB Land Disposal Requirements, and [67426.1](#) through [67429.1](#) (management of PCB light ballasts).
- Chemotherapy drug intravenous bags and delivery tubing are managed as medical waste per Chapter 6.1 of division 20 of the Health and Safety Code. The California Department of Health Services [Medical Waste Management Program](#) regulates medical waste.





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COMMONLY ASKED QUESTIONS

Definition of "Empty"

Q. Regarding the definition of "empty," no matter how long the container is allowed to drain, some material might still drip when the container is inverted. How would an inspector verify that the container is truly empty?

A. As some residual material will always remain in the "empty" container, an inspector inverting the "empty" container may see some drops drip from the containers. This should not be considered a violation; however, a continuous stream of liquid from the container could be considered a violation. Therefore, generators should allow sufficient time for the container to drain in order to satisfy the "empty" standard.

Q. If I manage to "empty" the container pursuant to California code of Regulations, title 22, section [66261.7](#), can I assume that the container is non-hazardous at that stage?

A. No. The contaminated container regulations do not classify the containers as non-hazardous at any stage; they only grant an exemption if both the "empty" standard and the management practices are met. The intent of the regulations were to ease the regulatory burden on those generators that are interested in recycling the containers, as well as those involved in the transporting, recycling, refurbishing, and metal recovering contaminated containers. Mismanaged containers lose their exemptions and are subject to full regulation under the hazardous waste control laws.

Management Practices

Q. If the container is considered empty, then why should generators bother with the management practices?

A. "Empty" containers can still contain some residual hazardous materials that could cause significant harm if mismanaged. Therefore, the management practices outlined in California Code of Regulations, title 22, section [66261.7](#) are necessary to protect public health and the environment.

Q. Do I need to fill out a manifest and use a registered hauler to transport my "empty" containers?

A. Not if they meet all requirements for exemption. You are not required to fill out a hazardous waste manifest or use a registered hauler to transport the exempt containers. However, all empty containers must be transported in accordance applicable US DOT regulations, which include certain packaging and labeling requirements.

Q. My local program has authorized me to rinse containers under the tiered permitting program. Must I continue to manage my containers under these regulations after they have been decontaminated?

A. If you decontaminate your containers so that they do not exhibit hazardous characteristics and no longer present a hazard to human health and the environment, then they are no longer subject to the contaminated container regulations.





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Aerosol Containers:

Q. If I have an aerosol container with a clogged nozzle and I know that when I shake the container there is some liquid inside, is this can exempt from regulation?

A. No. Aerosol containers that are not or cannot be emptied of contents and propellant will not qualify for the exemption and should be managed as either hazardous or universal waste.

Q. If an aerosol can is empty to the maximum extent practical under normal use (i.e., I push the nozzle and nothing comes out and invert the container and I don't feel any liquid flow), is this container exempt from regulation? Can I puncture the container and send it for recycling?

A. Yes, but with an important caveat. Empty aerosol containers that did not previously hold acute or extremely hazardous waste are exempt from regulation and can be managed as non-hazardous waste. Puncturing or crushing exempt cans is not treatment of hazardous waste. However, since modern aerosol products often utilize flammable or explosive propellants, puncturing activities should be conducted only with proper aerosol-puncturing equipment that meets air-quality, OSHA, and other mandates.

Permit Requirements

Do I need a formal grant of authorization (permit) from DTSC to conduct the following activities:

Q: Remove non-pourable materials from containers to meet the "empty" definition?

A: No. The DTSC authorized the use of physical methods (excluding rinsing) to remove non-pourable materials from containers. See California Code of Regulations, title 22 section [66261.7\(b\)\(2\)](#). This authorization is not applicable to containers that previously held acute or extremely hazardous waste.

Q: Treat a container which previously held acute or extremely hazardous waste?

A: Triple-rinsing, or any other scientifically proven method to remove the acutely or extremely hazardous material, requires formal authorization from DTSC or the CUPA. The only exceptions are:

When the activity qualifies for exemption as specified in the recycling provisions of Health and Safety Code Section [25143.2\(c\)\(2\)](#)

The rinsing is conducted under the laboratory "benchtop treatment" exemption in California Health and Safety Code section [25200.3.1](#), or

The "treatment" is part of the manufacture's instruction for using the material. For example, some manufacturers instruct the user of a material to place a small amount of a neutralizing agent into a container after it has been emptied, in order to prevent reactive compounds from forming from the chemical residues.





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Q. Treat (rinse or shred) contaminated containers that did not previously contain acute or extremely hazardous waste?

A: The regulations allow treatment of containers without a permit, provided that container is “empty” as defined by the California regulations that it did not previously contain acute or extremely hazardous waste, and that it is managed pursuant to the management practices outlined in California Code of Regulations, title 22, section [66261.7](#).

Containers of 110 gallons or less in capacity that are empty pursuant to the federal standard (40 CFR 261.7), but not empty to the California standards may be treated under the authorization of the Conditional Exemption tier for Specified Wastestreams (CESW). Generators operating under CESW must comply with all the requirements set forth in California Health and Safety Code section 25201.5. For further information on the tiered permitting requirements, contact your local Certified Unified Program Agency (CUPA).

GENERAL QUESTIONS

Q. Do the contaminated containers regulations apply to underground storage tanks?

A. No. Underground storage tanks are not portable devices and thus are not considered containers (refer to the definition of a container on page 1). Therefore, the contaminated container regulations do not apply to underground storage tanks. Decontamination of underground tanks is covered in California Code of Regulations, title 22, chapter 32, beginning with section [67383.1](#).

Q. If the container had an inner liner that prevented contact of the material with the inner surface of the container, is the container still regulated as hazardous waste once I remove the inner liner?

A. No. Once the liner is removed, the container is exempt from regulation. This applies to containers of all sizes. It also applies to containers that previously held acute or extremely hazardous waste and containers that are made of absorptive materials. This exemption will not apply if the inner liner leaked and thus resulted in contaminated the outer container.

Q. Can I "reclaim" contaminated containers by making them into barbeques or other items? Isn't that "reclaiming scrap value"?

A. The contaminated container regulations do not address the reuse of containers in this way. The term "reclaiming scrap value" in the regulations is considered to be the sale of containers to a scrap metal facility. If a person wanted to use contaminated containers as a “raw material” to produce another product, the generator or handler would have to manage it as hazardous waste and decontaminate it. Decontamination of hazardous waste is considered to be treatment subject to permitting requirements, in this case, under tiered permitting. The person conducting treatment would have to be able to demonstrate that the containers were completely decontaminated before managing them as non-hazardous containers. The commercial use of containers to produce food appliances may also come under regulation by the Department of Food, Drug and Agriculture and other State and federal public health agencies.





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Q. Does laboratory glassware fit the definition of “empty containers”?

A. Yes. Contaminated laboratory glassware can be discarded or recycled if empty, or washed and reused. If it had contained extremely hazardous or acutely hazardous waste, the generator would need to triple rinse it before discarding it.

DTSC REGULATORY ASSISTANCE OFFICERS

If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can call them at 800-728-6942, or contact them through the Department of Toxic Substances Control website — <http://www.dtsc.ca.gov> — follow the “Contact us” then “Regulatory Assistance Officers” links to the page listing each of the Regulatory Assistance Officers [email](#) addresses or at RAO@dtsc.ca.gov.

DTSC Regulatory Assistance Officers role is to provide informal guidance regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

We also encourage you to complete a Cal/EPA Customer Satisfaction survey <http://www.calepa.ca.gov/ContactUs/> so that we may improve our Regulatory Assistance Office.

