



West Texas A&M University™

ACADEMIC RESEARCH ENVIRONMENTAL HEALTH AND SAFETY

STANDARD OPERATING PROCEDURES

SOP No. 24.01.01.W1.07AR Empty Container Procedure

Approved: August 15, 2010
 Last Revised: July 11, 2012
 Last Revised: October 11, 2018
 Next Scheduled Review: October 11, 2023

Environmental Health and Safety at WTAMU is composed of two distinct but integrated environmental safety departments that report to the Vice President of Research and Compliance. Academic and Research Environmental Health and Safety (AR-EHS) is responsible for research and academic related compliance, which includes laboratory and academic research and the associated compliance committees. Fire and Life Safety (FLS-EHS) is responsible for fire related compliance and conducts fire and life safety inspections of campus buildings and assists with the testing of all fire detection and suppression systems.

Supplements [TAMUS Regulation 24.01.01](#)

Table of Contents

STANDARD OPERATING PROCEDURES	1
SOP No. 24.01.01.W1.07AR Empty Container Procedure	1
1. Purpose.....	2
2. Scope.....	2
3. Regulatory Summary of the Requirements for Empty Containers.....	3
3.1 Regulatory Standards.....	3
3.2 Gases	3
3.3 Hazardous Waste	3
3.4 Residues from Empty Containers	4
4. Special Issues: Aerosol Cans	4
5. Empty Container Best Management	4
6. Record Retention	5
7. Training	5

1. Purpose

Empty containers represent a significant waste stream on the university campus. Containers can be regulated as hazardous waste under RCRA if they do not meet the definition of "RCRA empty". The regulations covering management of hazardous waste stored in containers are found in 40 CFR Parts 264/265, Subpart I. These specific requirements must be met by the university. The regulations covering the management of container residues and the definition of when residues in containers are exempt from regulation are found at 40 CFR §261.7. These regulations set out procedures for establishing a container as "empty". Since empty containers no longer contain hazardous waste, these regulations are also used to determine when containers are no longer subject to the requirements of RCRA.

2. Scope

This procedure applies to all organizations at West Texas A&M University. It addresses empty containers and procedures for determining if the container is classified as empty, and how to handle the pickup and disposal of the containers.

AR-EHS shall:

- Administer the WTAMU Empty Container Procedure with qualified/trained personnel; and
- Assist departments and employees with the following:
 - Determining if containers are RCRA empty;
 - Pick up of empty containers, if requested;
 - Provide training, if needed, to faculty, staff, and students on the WTAMU Empty Container Procedure; and
 - Pick up special waste containers such as aerosol cans.

Department/Components shall:

- Comply with the WTAMU Empty Container Procedure;
- Ensure employees are properly trained; and
- Assist employees with the following:
 - Coordinate with AR-EHS to obtain the appropriate information regarding the WTAMU Empty Container Procedure.
 - Provide labels, if needed, for chemical containers containing P-listed hazardous waste residues.

Employees and students shall:

- Comply with the written WTAMU Empty Container Program.

3. Regulatory Summary of the Requirements for Empty Containers

The regulations at §261.7 define when hazardous waste residue in an empty container is exempt from regulation. These regulations set out the requirements for rendering a container or inner liner "empty." To distinguish between the usual meaning of the word "empty" and the strict regulatory definition, the phrase "RCRA empty" is sometimes used. Any hazardous waste remaining in either a RCRA empty container or inner liner is not subject to regulation under RCRA Subtitle C. EPA promulgated these regulations to give guidance to owners/operators on how to empty their containers so that the containers are no longer subject to regulation, even if some residues remain in the container. Therefore, these regulations allow an owner/operator to reuse containers or inner liners meeting the provisions of §261.7, since the container is no longer considered to hold hazardous waste.

3.1 Regulatory Standards

Throughout this section, there will be references to the term "inner liner." This term refers to a continuous layer of material placed inside a tank or container which protects the construction materials of the container from contact with the contained waste or reagents used to treat the waste (§260.10). The following is a summary of the standards for rendering a container or inner liner RCRA empty.

3.2 Gases

Containers holding compressed gases that are hazardous wastes are considered empty when the pressure in the container approaches atmospheric pressure (§261.7(b)(2)).

3.3 Hazardous Waste

A container or inner liner removed from a container holding non-acute hazardous waste as identified in Part 261, Subparts C and D is empty when:

- All wastes have been removed using practices commonly employed industry-wide to remove wastes from containers or liners, such as pouring, pumping, aspirating, and draining (§261.7(b)(1)(i))

AND

- No more than 2.5 cm (1 inch) of material remains in the container or liner (§261.7(b)(1)(ii))

OR

- No more than 3 percent by weight of the container remains for containers with a capacity of 110 gallons or less, and no more than 0.3 percent by weight remains for containers with a capacity greater than 110 gallons (§261.7(b)(1)(iii)).

Common emptying methods might remove the liquid phase of the waste; however, solids or semisolids might adhere to the sides of the container. The definition of empty container therefore states that in addition to emptying the container using common practices, no more than 2.5 cm (1 in) of material may remain in the container for it to be considered empty. If common practices are not used to empty the container, then the weight determination must be used.

3.3.1 Acutely Hazardous Waste

A container or inner liner of a container holding acutely hazardous waste (i.e., all P-listed wastes and other hazardous wastes with the designated hazard code (H)) found in 40 CFR 261.30 is empty when:

- The container has an inner liner which prevents contact with the container and the liner is removed (§261.7(b)(3)(iii)).

OR

- The container has been triple rinsed with a solvent appropriate for removing the acutely hazardous waste (§261.7(b)(3)(i)).

OR

- When triple rinsing is inappropriate, an alternate method is used (§261.7(b)(3)(ii)).

To date, EPA has not defined triple rinsing in the regulations or in interpretative guidance. The rinsate is considered acutely hazardous waste according to the mixture rule; however, the act of triple rinsing is **not** considered treatment (45 FR 78528; November 25, 1980). If the rinsate can be used in another process then it is **not** considered to be an acutely hazardous waste, instead it is considered a product and can be stored as such until utilized.

Typically P wastes are highly toxic and include many pesticides, herbicides, and other extremely toxic substances.

3.4 Residues from Empty Containers

Residues remaining in a RCRA empty container are exempt from Subtitle C (hazardous waste) regulation and in most cases can be discarded in the WTAMU trash containers. Likewise, residues removed from an empty container (i.e., removed after the container meets the regulatory definition of empty) are also exempt from Subtitle C requirements, including the requirements for determining hazardous waste characteristics. In contrast, residues removed from a container that is not RCRA empty or that result from rendering a container empty are fully subject to Subtitle C and must be managed as a hazardous waste.

4. **Special Issues: Aerosol Cans**

A recurring issue within the container and empty container regulations is the puncturing or venting of aerosol cans. The issue stems partly from the applicability of the empty container regulations to aerosol cans, and partly from the issue of whether the can itself is considered to be part of the waste.

In general, aerosol cans are capable of holding either compressed gas or liquid. If the aerosol can is holding a compressed gas, it is unclear whether the act of venting to render the can empty would constitute treatment. This question must be answered by the appropriate EPA Region or authorized state. When the aerosol can is holding a liquid, the regulations depend upon whether the can is being sent for scrap metal recycling or disposal. If the can is sent for scrap metal recycling, the can and its contents are exempt from regulation as a scrap metal under §261.6(a)(3)(iii). The act of emptying the can would be an exempt recycling activity under §261.6(c), and any residues from emptying the can would be regulated if they are listed or exhibit a characteristic of hazardous waste. If the can is sent for disposal, both the contents of the can and the can itself are subject to regulation. To dispose of the aerosol can as nonhazardous, the can must be RCRA empty according to §261.7, and the can itself must not qualify as a hazardous waste. Users will assure that aerosol cans are empty prior to disposal in the trash receptacles. Aerosol cans that are no longer needed and that still contain paints and propellants will be transferred to AR-EHS for reuse, recycling, or waste management.

5. **Empty Container Best Management**

While empty containers may not be regulated as hazardous wastes they could pose health and safety risks to WTAMU staff, students, or the public if not properly managed. For example, containers that have held flammable materials could pose a fire or explosion risk if subjected to ignition sources. Containers that once held toxic materials could pose a risk if used as drinking water containers. Many containers that have held these

types of materials may appear as useful and could be collected from the waste receptacles and then be used without proper decontamination or safe handling practices. These types of attractive, re-useable containers (i.e., potentially re-useable drums, five-gallon cans, one-gallon cans, bottles, or jugs) should be managed in a manner that protects human health and safety. If the user has these types of containers they should:

- Mark the containers as “empty.” (For containers that contained P and H acutely hazardous wastes, the containers should be marked with the method of rinsing (i.e. triple rinsed or by liner removal, the date, and the initials of the party that conducted the rinse.)
- Maintain control of the containers to prevent inappropriate use of the containers.
- Notify AR-EHS for a container pickup via email at ar-ehs@wtamu.edu.

AR-EHS will:

- Collect the containers and dispose of the containers in a manner that protects public safety and the environment.
- Document the final disposition of the containers as required by regulation.

Note: The majority of the empty containers generated at WTAMU will be suitable for disposal as ordinary trash.

6. Record Retention

No official state records may be destroyed without permission from the Texas State Library as outlined in [Texas Government Code, Section 441.187](#) and [13 Texas Administrative Code, Title 13, Part 1, Chapter 6, Subchapter A, Rule 6.7](#). The Texas State Library certifies Agency retention schedules as a means of granting permission to destroy official state records.

WTAMU Records Retention Schedule is certified by the Texas State Library and Archives Commission. West Texas A&M University Environmental Health and Safety will follow [Texas A&M University Records Retention Schedule](#) as stated in the Standard Operating Procedure [61.99.01.W0.01 Records Management](#). All official state records (paper, microform, electronic, or any other media) must be retained for the minimum period designated.

7. Training

West Texas A&M University Environmental Health and Safety will follow the Texas A&M University System Policy [33.05.02 Required Employee Training](#). Staff and faculty whose required training is delinquent more than 90 days will have their internet access terminated until all trainings are completed. Only Blackboard and Single Sign-on will be accessible. Internet access will be restored once training has been completed. Student workers whose required training is delinquent more than 90 days will need to have their employment terminated by their manager.

Contact Office

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