

<u>SUBJECT</u>		<u>DATE</u>
1448. Definitions of Inactive Portion, Active Portion and Closed Portion of a RCRA TSDF		AUG 12, 2021
1449. Dangerous Waste Designations and Dangerous Waste Code Determinations		AUG 19, 2021
1450. Method Detection Limits and Hazardous Waste Determinations	ENCORE	AUG 26, 2021
1451. Method Detection Limits and Hazardous Waste Determinations II	ENCORE	SEP 2, 2021
1452. Totals Analysis vs. TCLP and Dividing by 20	ENCORE	SEP 9, 2021
1453. Decharacterized RCRA Waste - Manifesting and LDR Reporting	ENCORE	SEP 16, 2021
1454. Decharacterized Hazardous Waste Listed Solely for Non-Toxic Characteristics	ENCORE	SEP 23, 2021
1455. Decharacterized Wastes and the LDR Dilution Prohibition	ENCORE	SEP 30, 2021
1456. The "Derived from Rule", the "Mixtures Rule", and the "Contained-In Policy"	ENCORE	OCT 7, 2021
1457. Hazardous Debris and Options to Exclude as a Dangerous Waste		OCT 14, 2021
1458. Regulatory Status of Characteristic Baghouse Dust Destined for Reclamation		OCT 21, 2021
1459. RCRA Point of Generation and Baghouse Dust Collection Systems		OCT 28, 2021
1460. Pumps Containing Liquid Hazardous Wastes and Liquids in Landfill Prohibition	ENCORE	NOV 4, 2021
1461. Pumps Containing Liquid Hazardous Waste and Land Disposal Restrictions	ENCORE	NOV 11, 2021
1462. Pumps Containing Liquid Hazardous Wastes and RCRA Empty Containers		NOV 18, 2021
1463. Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents	ENCORE	NOV 23, 2021
1464. LDR Notifications/Certifications and Generator Permitted Treatment, Storage, or Disposal Facility	ENCORE	DEC 2, 2021
1465. Multiple Characteristic and Listed Hazardous Waste Codes and the "in lieu of" LDR Principle	ENCORE	DEC 9, 2021
1466. Universal Wastes - Recycling versus Disposal	ENCORE	DEC 16, 2021
1467. 'Twas the Night Before Christmas – The Twenty-Eighth Edition		DEC 24, 2021
1468. Spent Lead Acid Batteries vs., Universal Wastes	ENCORE	DEC 30, 2021
1469. Hazardous Debris and Radioactively Contaminated Cadmium Batteries	ENCORE	JAN 6, 2022
1470. Hazardous Debris and Radioactively Contaminated Lead-Acid Batteries	ENCORE	JAN 13, 2022
1471. Mercury Wet Cell Batteries - Debris or Not Debris	ENCORE	JAN 20, 2022
1472. Hazardous Debris and Non-Radioactive Lead Acid Batteries	ENCORE	JAN 27, 2022
1473. Hazardous Debris and LDR High/Low Mercury Subcategories	ENCORE	FEB 3, 2022
1474. Central Accumulation Areas and the ≤90-day Time Frame	ENCORE	FEB 10, 2022
1475. Central Accumulation Areas with Satellite Accumulation		FEB 17, 2022
1476. Definition of RCRA Empty Tank	ENCORE	FEB 24, 2022
1477. RCRA Empty Acutely Hazardous Waste Containers	ENCORE	MAR 3, 2022

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TWO MINUTE TRAINING

TO: CENTRAL PLATEAU CLEANUP COMPANY

FROM: PAUL W. MARTIN, RCRA Subject Matter Expert
CPCCo Environmental Protection, Hanford, WA

SUBJECT: RCRA EMPTY ACUTELY HAZARDOUS WASTE CONTAINERS

DATE: MARCH 3, 2022

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TWO MINUTE TRAINING

SUBJECT: RCRA Empty Acutely Hazardous Waste Containers

Q: When is a container of acutely hazardous waste considered RCRA empty?

A: Per [WAC 173-303-160\(2\)\(b\)](#) [[40 CFR Part 261.7\(b\)\(3\)](#)] a container that held an acutely hazardous waste (or WA State toxic extremely hazardous waste [WT01-EHW] or a WA pesticide bearing the danger or warning label) is empty if the container has been:

- Triple rinsed using an appropriate volume of solvent;
- Cleaned by another method proven to be effective, or;
- In the case of a container with an intact inner liner, once the inner liner has been removed.
- If rinsing might damage the container (e.g., fiber or cardboard containers without inner liners), an empty container may be vacuum cleaned, struck, with the open end of the container up, three times to remove or loosen particles from the inner walls and corners, and vacuum cleaned again.

Triple rinsing is key to meeting the acutely hazardous waste empty definition. Even if an acutely hazardous waste container appears empty, if not properly cleaned, the residue remaining in the container is an acutely hazardous waste.

Also note that acutely hazardous wastes are not limited to just the "P" listed wastes in [WAC 173-303-9903](#) [[40 CFR 261.33\(e\)](#)], or Toxic EHW wastes in [WAC 173-303-100](#). [WAC 173-303-040](#) [[40 CFR 260.10](#)] states that acutely hazardous wastes are also listed in [WAC 173-303-9904](#) [[40 CFR 261.31](#)] ("F" listed wastes). The "F" listed acutely hazardous wastes include F020 through F023, F026 and F027 (commonly known as the Dioxin codes).

Per [WAC 173-303-9904](#), [[40 CFR 261.31](#)], an acutely hazardous "F" listed waste is noted with the letter "H" under the column "Hazard Code". All "P" listed wastes are acutely hazardous. Concerning "U" and "K" listed wastes and the characteristic waste codes D001 through D043, none are acutely hazardous wastes. These codes do not require triple rinsing.

And finally, the rinsate generated from the rinsing of acutely hazardous waste containers (P and the dioxin F listed wastes) must be managed as acutely hazardous waste. As an example, if a "bone dry" but not RCRA empty F027 container is triple rinsed, the RCRA empty container is unregulated, but the rinsate continues to carry the F027 hazardous waste code. Note that rinsate from WA Toxic EHW containers must designate as EHW to remain EHW, i.e., there is no mixtures or derived from rule for WA State Only Toxic (or Persistent) EHWs.

SUMMARY:

- Acutely hazardous waste or WA Toxic EHW containers are RCRA empty if:
 - ▶ Triple rinsed;
 - ▶ Cleaned by another proven method;
 - ▶ The inner liner is removed, or;
 - ▶ If rinsing will damage the container, cleaned by vacuuming then struck three times to remove loose particles and vacuumed again.
- Acutely hazardous waste includes all the "P" listed waste codes, Washington State EHW, the dioxin related "F" waste codes and none of the "U", "K" or characteristic waste "D" codes.
- Rinsate from P and the dioxin F listed acutely hazardous waste containers are acutely hazardous waste.

Excerpts from [WAC 173-303-160](#), [173-303-040](#) and [40 CFR 261.7](#) are attached to the e-mail. If you have any questions, please contact me at [Paul W Martin@rl.gov](mailto:Paul.W.Martin@rl.gov) or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 3/3/2022

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TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: RCRA Empty Acutely Hazardous Waste Containers

WAC 173-303-160 Containers.

- (2) A container or inner liner is "empty" when:
- (a) All wastes in it have been taken out that can be removed using practices commonly employed to remove materials from that type of container or inner liner (e.g., pouring, pumping, aspirating, etc.) and, no more than one inch of waste remains at the bottom of the container or inner liner, or the volume of waste remaining in the container or inner liner is equal to three percent or less of the container's total capacity, or, if the container's total capacity is greater than one hundred ten gallons, the volume of waste remaining in the container or inner liner is no more than 0.3 percent of the container's total capacity. A container which held compressed gas is empty when the pressure inside the container equals or nearly equals atmospheric pressure; and
 - (b) If the container or inner liner held acutely hazardous waste, as defined in WAC 173-303-040, toxic EHW as defined in WAC 173-303-100 or pesticides bearing the danger or warning label, the container or inner liner has been rinsed at least three times with an appropriate cleaner or solvent. The volume of cleaner or solvent used for each rinsing must be ten percent or more of the container's or inner liner's capacity or of sufficient quantity to thoroughly decontaminate the container. In lieu of rinsing for containers that might be damaged or made unusable by rinsing with liquids (e.g., fiber or cardboard containers without inner liners), an empty container may be vacuum cleaned, struck, with the open end of the container up, three times (e.g., on the ground, with a hammer or hand) to remove or loosen particles from the inner walls and corners, and vacuum cleaned again. Equipment used for the vacuum cleaning of residues from containers or inner liners must be decontaminated before discarding, in accordance with procedures approved by the department. A container or inner liner is also considered "empty" if the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal.
- Any rinsate or vacuumed residue which results from the cleaning of containers or inner liners must, whenever possible, be reused in a manner consistent with the original intended purpose of the substance in the container or inner liner. In the case of a farmer, if the rinsate is a pesticide residue then the rinsate must be managed or reused in a manner consistent with the instructions on the pesticide label, provided that when the label instructions specify disposal or burial, such disposal or burial must be on the farmer's own (including rented, leased or tenanted) property. Otherwise, the rinsate must be checked against the designation requirements (WAC 173-303-070 through 173-303-100) and, if designated, managed according to the requirements of this chapter.
- (c) In the case of a container, the inner liner, that prevented the container from contact with the commercial chemical product or manufacturing chemical, has been removed.
- (3)
- (a) Any residues remaining in containers or inner liners that are "empty" as described in subsection (2) of this section will not be subject to the requirements of this chapter, and will not be considered as accumulated wastes for calculating waste quantities.
 - (b) Any dangerous waste in either: A container that is not empty, or an inner liner removed from a container that is not empty (as defined in subsection (2) of this section) is subject to the requirements of this chapter.

TWO MINUTE TRAINING -ATTACHMENT

SUBJECT: RCRA Empty Acutely Hazardous Waste Containers

WAC 173-303-040 Definitions.

"Acute hazardous waste" means dangerous waste sources (listed in WAC 173-303-9904) F020, F021, F022, F023, F026, or F027, and discarded chemical products (listed in WAC 173-303-9903) that are identified with a dangerous waste number beginning with a "P", including those wastes mixed with source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954. The abbreviation "AHW" will be used in this chapter to refer to those dangerous and mixed wastes which are acute hazardous wastes. Note - the terms acute and acutely are used interchangeably.

40 CFR 261.7 Residues of hazardous waste in empty containers.

- (a) (1) Any hazardous waste remaining in either (i) an empty container or (ii) an inner liner removed from an empty container, as defined in paragraph (b) of this section, is not subject to regulation under parts 261 through 265, or part 268, 270 or 124 of this chapter or to the notification requirements of section 3010 of RCRA.
- (2) Any hazardous waste in either (i) a container that is not empty or (ii) an inner liner removed from a container that is not empty, as defined in paragraph (b) of this section, is subject to regulation under parts 261 through 265, and parts 268, 270 and 124 of this chapter and to the notification requirements of section 3010 of RCRA.
- (b) (1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in §§261.31, .32, or .33(e) of this chapter is empty if:
 - (i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and
 - (ii) No more than 2.5 centimeters (1 inch) of residue remain on the bottom of the container or inner liner, or
 - (iii)
 - (A) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or
 - (B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.
- (2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.
- (3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in §§261.31, 261.32, or 261.33(e) is empty if:
 - (i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
 - (ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or
 - (iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.