

<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

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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: DEFINITION OF RCRA EMPTY TANK

DATE: FEBRUARY 24, 2022

<u>CPCCo Projects</u>	<u>CPCCo Functionals</u>	<u>HMIS</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
Tania Bates Theresa Boles Justin Bolles James Brack Rene Catlow Peter Ceton Richard Clinton Patty Drago Paul Fernandez Ryan Fisher Andrew Getz Cory Grabeel Lawanda Grow Char Hall Stuart Hildreth Sarah Horn Aprill Jivelekas Sasa Kosjerina William Krueger Richard Lipinski Stuart Mortensen Edward Myers Trey Reppe Melissa Sahn-dame Seth Slater Phil Sheely Jeff Westcott Richard Willson Nick Wood Jon Wright	Jeff Bramson Bob Bullock Frank Carleo Bob Cathel Danielle Collins Stacy Cutter Jeanne Elkins Jonathan Fullmer Randal Fox Bailey Hardy Steve Heninger John Hultman Julie Johanson Mitch Marrott Stewart McMahand Carlie Michaelis Brian Mitcheltree Anthony Nagel Chris Plager Linda Petersen Brent Porter Sean Sexton Dave Shea Deborah Singleton Dale Snyder Dave St. John Kat Thompson Daniel Turlington Britt Wilkins Jennifer Williams	Morgan Baker Brett Barnes Mike Demiter Kip George Jerry Cammann Kelly Elsethagen Garin Erickson Katie Hall Dashia Huff Mark Kamberg Jon McKibben Saul Martinez Matt Mills Carly Nelson Eric Pennala Jon Perry Dave Richards Christina Robison Christian Seavoy David Shaw John Skoglie Greg Sullivan	Dean Baker Linda Conlin Garrett Knutson Eric Van Mason <u>DOE RL, ORP, WIPP</u> Duane Carter Ingrid Colton Tony McKarns Allison Wright	Bill Bachmann Scott Baker Michael Carlson Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Darrin Faulk James Hamilton Leah Hare Andy Hobbs Stephanie Johansen Ryan Johnson Megan Lerchen Mike Lowery Michael Madison Terri Mars Cary Martin Steve Metzger Tony Miskho Tom Moon Chuck Mulkey Michelle Oates Kirk Peterson	Dan Saueressig Lana Strickling Joelle Moss Greg Varljen Robin Varljen Julie Waddoups Jay Warwick Ted Wooley

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TWO MINUTE TRAINING

SUBJECT: Definition of RCRA Empty Tank

Q: According to [WAC 173-303-160\(2\)](#) [[40 CFR 261.7](#)] a dangerous/hazardous waste container is RCRA empty if all wastes have been removed that can be removed and no more than one inch of residue remains, or 3% by weight if the container is ≤119 gallons, or 0.3% by weight if the container is >119 gallons. For an acutely hazardous waste container, it is RCRA empty if the container has been tripled rinsed with an appropriate solvent. Concerning dangerous waste tanks, when is a tank considered "RCRA empty"?

A: Per the EPA and WAC regulations there are no RCRA empty tank criteria as there are for RCRA empty containers. Only RCRA closure per [WAC 173-303-640\(8\)](#) (WA Final Status Permits) or [40 CFR 265.197](#) (WA Interim Status) would remove a dangerous waste tank from RCRA regulation. The closest analogy to RCRA empty for dangerous waste tanks is found in the [January 11, 1982, Federal Register](#) on page 1250, Part III, Section 2, "Empty Tanks", concerning ≤90-day compliance for tanks:

"Questions have been raised concerning the applicability of the 90-day accumulation provision to accumulation in tanks. As with accumulation in containers, the 90-day period begins the moment the generator first places hazardous wastes in an 'empty' tank.

A tank will be considered 'empty' when its contents have been drained to the fullest extent possible. Since many tank designs do not allow for complete drainage due to flanges, screens or siphons, it is not expected that 100% of the wastes will always be removed. As general guidance, a tank should be considered empty when the generator has left the tank's drainage system open until a steady, continuous flow has ceased."

Note that the above Federal Register guidance is specific in terms of ≤90-day hazardous waste tank accumulation compliance, i.e., restarting the accumulation clock, and not the RCRA empty criteria for tanks, which does not exist. (Also note that a State may be more stringent concerning emptying of tanks for ≤90-day accumulation compliance.)

SUMMARY:

- A dangerous waste container can be RCRA empty when:
 - All waste has been removed that can be removed, and
 - No more than one inch of residue or 3% or 0.3% by weight as applicable remains.
- An acutely hazardous waste container can be RCRA empty when:
 - The container has been triple rinsed with an appropriate solvent.
- A ≤90-day RCRA tank is empty for purposes of the accumulation time limit when:
 - The tank has been drained to the fullest extent possible,
 - I.e., the tank's drainage system has been left open until a steady, continuous flow ceases.
- A RCRA tank is basically "RCRA empty" only when the tank has completed RCRA clean closure.

An excerpt from WAC 173-303-160 and the EPA memo dated August 31, 1982, ([RO 12062](#)) concerning emptying ≤90-day tanks are attached to the e-mail. If you have any questions, contact me at Paul_W_Martin@rl.gov or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 2/24/2022

FILE: 2MT\2022\022422.rtf

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TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Definition of RCRA Empty Tank

FAXBACK 12062

RPPC# 9453.1982(01)

AUG 31 1982

MEMORANDUM

SUBJECT: 90-Day Accumulation of Hazardous Waste in Tanks

FROM: John H. Skinner, Acting Director, Office of Solid Waste WH-562)

TO: Thomas W. Devine, Director, Air and Waste Management Division, Region IV

This is in response to your memorandum of June 29, 1982, regarding the 90-day accumulation of hazardous waste in tanks. In your memo, you requested headquarters' rationale for allowing generators to accumulate hazardous waste in tanks under 40 CFR 262.34. You pointed out that accumulation in tanks is virtually the same activity as storage in tanks, and therefore it seems inconsistent to apply different standards to the two activities.

Section 262.34 allows generators who accumulate hazardous waste as a normal part of their manufacturing or industrial processes to do so for short periods of time without obtaining a RCRA permit for storage or qualifying for interim status. This distinction between accumulation and storage was made for practical and administrative reasons. EPA determined that generators should not be burdened with the RCRA permitting process for short-term accumulation that is incidental to their operations. We allow generators to accumulate hazardous waste in both containers and tanks because we believe that it generators adhere to the standards in Part 265 Subparts I and J that they can safely accumulate hazardous waste for 90 days or less without having to obtain a permit. The requirements of 262.34 were designed to be consistent with both goals of relieving generators of RCRA permitting procedures applicable to storage facilities while ensuring protection of human health and the environment during accumulation.

Regarding your comment that "an empty tank has not been defined", the preamble to the January 11, 1982 final rule on 90-day accumulation (47 FR 1250) gives the following guidance; "A tank will be considered 'empty' when its contents have been drained to the fullest extent possible. Since many tank designs do not allow for complete drainage due to flanges, screens or siphons, it is not expected that 100% of the wastes will always be removed." As you suggest, there may be cases where a tank is never "completely empty." We recognize this problem but believe a deviation from "completely empty" is a satisfactory compromise in a real world of day-to-day operations.

Finally, you state in your memo that the preamble to 232.34 in the May 19, 1980 FR said "Part 264 requirements will be added" as requirements for accumulation. The preamble states that "Part 262 may be amended again to include the Part 264 final standards for tanks when they are promulgated." We have no immediate plans to amend 264.34 to incorporate Part 264 Subpart I and J standards for storage in containers and tanks. However, we are re-evaluating the 90-day rule as part of the Regulatory impact Analysis (RIA). We intend to complete our analysis of the 90-day rule, including an analysis of standards for accumulation in tanks, within 12 months.

Please call Amy Mills of my staff at 382-4755 if you have further questions.

FROM: Paul W. Martin

DATE: 2/24/2022

FILE: 2MT\2022\022422.rtf

PG: 2

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TWO MINUTE TRAINING -ATTACHMENT

SUBJECT: Definition of RCRA Empty Tank

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 (for example, pouring, pumping, aspirating, etc.) and:

(i) No more than one inch of waste remains at the bottom of the container or inner liner; or

(ii) 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 119 gallons in size; or

(iii) 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 119 gallons in size.

A container that 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 (for example, 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 (for example, 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 that 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 application instructions on the pesticide label. On-site disposal or burial of pesticide residues is prohibited. 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 the purposes of 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.