

<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
1478.	The RCRA Definition of Acute Hazardous Waste	MAR 10, 2022
1479.	Regulatory Status of Liquids and Solids Separated from D001 High TOC Wastes	ENCORE MAR 17, 2022
1480.	Generator Accumulation at a Permitted Storage Facility	MAR 24, 2022
1481.	Generator Accumulation and Maximum Inventory of Dangerous Waste Onsite at a RCRA TSD	MAR 31, 2022
1482.	LDR Storage Prohibitions and the One-Year Rule	ENCORE APR 7, 2022
1483.	LDR Storage Prohibitions and Treated Hazardous Wastes	ENCORE APR 14, 2022
1484.	LDR Storage Prohibitions and Treated Hazardous Debris or Contaminated Soil	ENCORE APR 21, 2022
1485.	Satellite Accumulation, the Three-Day Rule, and Washington State vs. EPA	ENCORE APR 28, 2022
1486.	Satellite Accumulation Areas and the Three-Day Accumulation Time Limit	ENCORE MAY 5, 2022
1487.	Satellite Accumulation Areas and the Three-Day vs., the 72-Hour Accumulation Time Limit	MAY 12, 2022
1488.	RCRA and New Point of Generation	ENCORE MAY 19, 2022
1489.	High Mercury vs. Low Mercury and Point of Generation	ENCORE MAY 26, 2022
1490.	Nonwastewater vs., Wastewater – The LDR Definitions	JUN 2, 2022
1491.	LDR Treatability Groups and Applicability of LDR Treatment Standards	JUN 9, 2022
1492.	Land Disposal Restricted vs. Land Disposal Prohibited	ENCORE JUN 16, 2022
1493.	RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario I	ENCORE JUN 23, 2022
1494.	RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario II	ENCORE JUN 30, 2022
1495.	RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario III	ENCORE JUL 7, 2022
1496.	MACROencapsulation and a Jacket of Inert Inorganic Materials	JUL 14, 2022
1497.	MACROencapsulation vs. macroencapsulation	ENCORE JUL 21, 2022
1498.	Hazardous Debris Macroencapsulation and Size Reduction	ENCORE JUL 28, 2022
1499.	Hazardous Debris Macroencapsulation and Size Reduction – Part II	ENCORE AUG 4, 2022
1500.	Macroencapsulation of Hazardous Debris and Presence of Free Liquids	ENCORE AUG 11, 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: MACROENCAPSULATION OF HAZARDOUS DEBRIS AND PRESENCE OF FREE LIQUIDS

DATE: AUGUST 11, 2022

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TWO MINUTE TRAINING

SUBJECT: Macroencapsulation of Hazardous Debris and Presence of Free Liquids

Q: A customer has hazardous debris as defined at [40 CFR 268.45](#) in the form of crushed containers. The crushed containers will be landfilled following macroencapsulation as defined at [40 CFR 268.45 Table 1](#). Some of the containers contain small amounts of free liquids and the customer is concerned about the prohibition on liquids in landfills at [WAC 173-303-140\(4\)\(b\)](#) [[40 CFR 264.314\(c\)](#) / [265.314\(b\)](#)]. Can the customer's debris contain free liquids if destined for macroencapsulation and then landfill?

A: Per the [August 18, 1992, Federal Register \(57 FR 37194\)](#) on page 37223, it states:

"Even though debris must be a solid material, it may contain or be mixed with free liquids. The liquids may be waste or ground or surface water that may be entrapped in the debris (e.g., in partially crushed containers) or may be still oozing from the debris if the debris was newly generated or newly excavated from a remediation site. (If liquids separate from hazardous debris prior to treatment of the debris, they must be managed as hazardous waste.) Liquids that are entrapped in debris will be effectively treated under today's [hazardous debris] treatment standards for extraction or destruction technologies. If an extraction technology is used, the toxic constituents in the liquid will be removed from the debris as a treatment residue and is subject to the LDRs for the waste contaminating the debris. If a destruction technology is used, the toxic constituents in the liquids should be destroyed.

We note, however, that debris that is immobilized prior to land filling may not contain free liquids as provided by §§264.314 and 265.314. Thus, free liquids (including liquids in crushed containers) cannot be present in debris that is macroencapsulated or sealed, and cannot be present in debris that has been microencapsulated."

Therefore, the customer's debris consisting of crushed drums destined for landfill, could not be macroencapsulated, or sealed or microencapsulated, and landfilled if the treated debris contained free liquids. The free liquids would have to be removed prior to landfilling. However, the free liquids would not have to be removed if the debris was be treated via an extraction or destruction technology listed in 40 CFR 268.45, Table 1.

SUMMARY:

- Hazardous debris must be a solid, but may contain or be mixed with free liquids.
- Hazardous debris containing entrapped liquids are effectively treated via extraction or destruction technologies, e.g., chemical extraction, thermal extraction, thermal destruction, etc.
- Hazardous debris containing free liquids cannot be treated via macroencapsulation or sealing, and cannot contain free liquids after microencapsulation and then disposed in a landfill.

Excerpts from WAC 173-303-140(4) and 40 CFR 264/265.314 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: 8/11/2022

FILE: 2MT\2022\.rtf

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TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Macroencapsulation of Hazardous Debris and Presence of Free Liquids

WAC 173-303-140 Land Disposal Restrictions.

(4) Land disposal restrictions and prohibitions. The land disposal requirements of this subsection apply to land disposal in Washington state.

(b) Disposal of liquid waste. Special requirements for bulk and containerized liquids.

(i) The placement of bulk or noncontainerized liquid dangerous waste or dangerous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(ii) Containers holding free liquids must not be placed in a landfill unless:

(A) All free-standing liquid:

(I) Has been removed by decanting, or other methods; or

(II) Has been mixed with sorbent or stabilized (solidified) so that free-standing liquid is no longer observed; or

(III) Has been otherwise eliminated; or

(B) The container is very small, such as an ampule; or

(C) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(D) The container is a labpack and is disposed of in accordance with WAC 173-303-161 and this chapter.

(iii) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following tests must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" EPA Publication SW-846 as incorporated by reference in WAC 173-303-110 (3)(a).

(iv) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: Materials listed or described in (b)(iv)(A) of this subsection; materials that pass one of the tests in (b)(iv)(B) of this subsection; or materials that are determined by the department to be nonbiodegradable through WAC 173-303-910.

TWO MINUTE TRAINING -ATTACHMENT

SUBJECT: Macroencapsulation of Hazardous Debris and Presence of Free Liquids

40 CFR §264.314 Special requirements for bulk and containerized liquids

(a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.

(c) Containers holding free liquids must not be placed in a landfill unless:

(1) All free-standing liquid:

(i) Has been removed by decanting, or other methods;

(ii) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) Has been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in §264.316 and is disposed of in accordance with §264.316.

(d) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in paragraph (d)(1) of this section; materials that pass one of the tests in paragraph (d)(2) of this section; or materials that are determined by EPA to be nonbiodegradable through the part 260 petition process.

40 CFR §265.314 Special requirements for bulk and containerized liquids

40 CFR 265.314 (interim status permits) has essentially the same wording as 40 CFR 264.314 (final status standards) except the order of the paragraphs is slightly different and paragraph (d) reads:

"(d) The date for compliance with paragraph (a) of this section is November 19, 1981. The date for compliance with paragraph (c) of this section is March 22, 1982."