

<u>SUBJECT</u>		<u>DATE</u>
1339. The Hazardous Waste Characteristic of Reactivity (D003)	ENCORE	JUL 11, 2019
1340. Central Accumulation Areas and Signage Requirements		JUL 18, 2019
1341. RCRA EPA Identification Numbers – Site Specifics	ENCORE	JUL 25, 2019
1342. RCRA EPA Identification Numbers – Transporters	ENCORE	AUG 1, 2019
1343. Paint Wastes and the Applicability of the F001-F005 Listings to Ingredients	ENCORE	AUG 8, 2019
1344. F Listings and Ingredients in Commercial Chemical Product Formulations	ENCORE	AUG 15, 2019
1345. PCB Containers and ≥ 50 ppm	ENCORE	AUG 22, 2019
1346. CERCLA Hazardous Substances – The Petroleum Exclusion	ENCORE	AUG 29, 2019
1347. PCB Concentration Assumptions for Use vs. PCB Disposal	ENCORE	SEP 5, 2019
1348. RCRA LR One-Year Storage Prohibition vs., PCB One-Year Disposal Time Limit		SEP 12, 2019
1349. Regulatory Status of PCB Remediation Wastes Disposed Prior to April 18, 1978	ENCORE	SEP 19, 2019
1350. Regulatory Status of PCB Remediation Wastes Disposed Prior to April 18, 1978 – A Follow-Up		SEP 26, 2019
1351. PCB Waste Regulation and April 18, 1978 vs. July 2, 1979		OCT 3, 2019
1352. PCB Waste Storage Limitations and the One-Year Extension	ENCORE	OCT 10, 2019
1353. PCB Waste Storage Limitations and the PCB Radioactive Waste Exemption	ENCORE	OCT 17, 2019
1354. LDR One-Year Storage Prohibition and Generator Permitted Storage	ENCORE	OCT 24, 2019
1355. LDR Notification/Certification and Generator Permitted Storage		OCT 31, 2019
1356. Disposing of PCB Ballasts with PCB Potting Material	ENCORE	NOV 7, 2019
1357. Fluorescent Light Ballasts and PCB Annual Reporting	ENCORE	NOV 14, 2019
1358. Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents	ENCORE	NOV 21, 2019
1359. Multiple Characteristic and Listed Hazardous Waste Codes and the “in lieu of” LDR Principle	ENCORE	NOV 26, 2019
1360. Universal Waste Lamps and Prohibition on Crushing	ENCORE	DEC 5, 2019
1361. Used Oil and Weekly Inspections	ENCORE	DEC 12, 2019
1362. Used Oil and Keeping Containers Closed – Washington State vs. the Feds	ENCORE	DEC 19, 2019
1363. ‘Twas the Night Before Christmas – The Twenty-Sixth Annual Edition		DEC 24, 2019
1364. Generator Weekly Inspection Log Documentation – Federal vs. WA State	ENCORE	JAN 2, 2020
1365. PCB Reporting and Recordkeeping Relief	ENCORE	JAN 9, 2020
1366. Satellite Accumulation and Product Vessel Cleanouts	ENCORE	JAN 16, 2020
1367. TSDF Requirements When Shipping Dangerous Waste to another TSDF		JAN 23, 2020
1368. The Hazardous Waste Manifest Instructions – Where did they go?		JAN 30, 2020
1369. The Mixtures Rule – Washington State vs. The Feds	ENCORE	FEB 6, 2020
1370. Used Oil and the Rebuttable Presumption		FEB 13, 2020
1371. Used Oil, Secondary Containment and Response to Spills	ENCORE	FEB 20, 2020
1372. Used Oil Eligibility for Animal and Vegetable Oils	ENCORE	FEB 27, 2020
1373. Used Oil Eligibility for Petroleum Oils Mixed with Animal or Vegetable Oils	ENCORE	MAR 5, 2020
1374. Mercury Wet Cell Batteries - Debris or Not Debris?	ENCORE	MAR 12, 2020

TWO MINUTE TRAINING

TO: CH2M HILL PLATEAU REMEDIATION COMPANY

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

SUBJECT: MERCURY WET CELL BATTERIES - DEBRIS OR NOT DEBRIS?

DATE: MARCH 12, 2020

<u>CHPRC Projects</u>	<u>CH PRC - Env. Protection</u>	<u>MSA</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
Richard Austin Tania Bates Rene Catlow Richard Clinton Larry Cole Laura Cusack John Dent Lorna Dittmer Stuart Hildreth Mike Jennings Stephanie Johansen Sasa Kosjerina Melvin Lakes Richard Lipinski Stuart Mortensen Dave Richards Phil Sheely Connie Simiele Jeff Westcott	Jeff Bramson Bob Bullock Frank Carleo Danielle Collins Bill Cox Jeanne Elkins Ryan Fisher Jonathan Fullmer Barry Lawrence Diane Leist Mitch Marrott Stewart McMahand Brian Mitcheltree Anthony Nagel Linda Petersen Sean Sexton Dave Shea Kat Thompson Wayne Toebe Eric Trotta Daniel Turlington Dave Watson	Brett Barnes Michael Carlson Mike Demiter Kip George Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzalez Jr. Dashia Huff Mark Kamberg Jon McKibben Saul Martinez Matt Mills Carly Nelson Michelle Oates Eric Pennala Jon Perry Christina Robison Christian Seavoy David Shaw John Skogleie Lana Strickling Greg Sullivan	(TBD) <u>DOE RL, ORP, WIPP</u> Mary Beth Burandt Duane Carter Al Farabee Tony McKarns	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Rob Gregory James Hamilton Andy Hobbs Ryan Johnson Megan Lerchen Mike Lowery Michael Madison Terri Mars Cary Martin Grant McCalmant Steve Metzger Tony Miskho Tom Moon Chuck Mulkey Kirk Peterson	Dan Saueressig Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Ted Wooley

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TWO MINUTE TRAINING

SUBJECT: Mercury Wet Cell Batteries - Debris or Not Debris?

Q: A customer has accumulated batteries for disposal that contain mercury liquids. The customer would like to manage the mercury wet cell batteries (D009 high mercury/inorganic) as hazardous debris under the alternative land disposal restrictions (LDR) treatment standards at [40 CFR 268.45](#), e.g., macroencapsulation. If not managed as debris, the batteries would require treatment via the LDR treatment standards at [40 CFR 268.40](#) of RMERC (retorting or roasting of mercury for recovery). The customer's concern is whether the mercury wet cell batteries are "intact containers", which would make the batteries ineligible for the alternative treatment standard for hazardous debris. Are batteries that contain free liquids considered debris or are these batteries considered "intact containers" and therefore not considered debris?

A: Debris as defined at [40 CFR 268.2\(g\)](#) includes manufactured objects over 60 mm in size. Materials with specific treatment standards, such as cadmium batteries or lead acid batteries, process residuals, and intact, unruptured, containers that retain at least 75% of their original volume are not debris.

The customer's mercury wet cell batteries are manufactured objects over 60 mm in size; have no specific treatment standard, e.g., there is no specific treatment standard for "Mercury containing batteries"; and consist of intact casings. Per an EPA Guidance Memo dated November 10, 1993, ([RO 13638](#)) it states:

"... in previous rulemakings EPA has stated that battery casings designed to hold free liquids for use other than storage are containers. I refer you specifically to 40 CFR 264.314(d)(3)[[now 264.314\(c\)\(3\)](#)]; 265.314(c)(3)[[now 265.314\(b\)\(3\)](#)]; and [55 FR 22637 / \(June 1, 1990\)](#) [2nd column, 2nd paragraph]. Thus, such intact battery casings are not debris."

Therefore, intact mercury wet cell batteries are intact containers and cannot meet the debris definition. The batteries would require treatment via the specified technology of RMERC and would not be eligible for the alternate treatment standard of debris. If the mercury wet cell batteries were not intact containers, due to being ruptured or crushed, those batteries could meet the definition of debris and would be eligible for the alternative treatment standards for hazardous debris.

SUMMARY:

- Intact containers are not eligible for management as hazardous debris.
- Mercury wet cell batteries designed to hold free liquids are intact containers.
- Mercury wet cell batteries that are intact containers cannot be managed as hazardous debris.

Excerpts from 40 CFR 268.40, 268.2(g) and the November 10, 1993, EPA letter are attached to the e-mail. If you have any questions, contact me at [Paul W Martin@rl.gov](mailto:Paul.W.Martin@rl.gov) or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 03/12/2020

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TWO MINUTE TRAINING – ATTACHMENT

SUBJECT: Mercury Wet Cell Batteries - Debris or Not Debris?

40 CFR 268.40 **Applicability of treatment standards.**

Treatment Standards for Hazardous Wastes

Regulated hazardous constituent				Wastewaters	Nonwastewaters
Waste Code	Waste Description and treatment/Regulatory Subcategory	Common Name	CAS#	Concentration in mg/L; or Technology Code	Concentration in mg/kg unless noted as "mg/L TCLP" or Technology Code
D009	Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)	Mercury	7439-97-6	NA	RMERC

40 CFR §268.2 Definitions applicable in this part

When used in this part the following terms have the meanings given below:

(g) *Debris* means solid material exceeding a 60 mm particle size that is intended for disposal and that is: A manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Subpart D, Part 268, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and **intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume.** A mixture of debris that has not been treated to the standards provided by §268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

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TWO MINUTE TRAINING – ATTACHMENT

SUBJECT: Mercury Wet Cell Batteries - Debris or Not Debris?

REGULATORY STATUS OF BATTERY CARCASSES

9441.1993(23)

**United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response**

Mr. Christopher L. Freed
Chemical Waste Management, Inc.
Manager - Environmental Regulations
3001 Butterfield Road
Oak Brook, Illinois 60521

November 10, 1993

Dear Mr. Freed:

Thank you for your letter of April 30, 1993 summarizing your meeting of April 29, 1993 with Richard Kinch of my staff. Upon further investigation of this issue since the receipt of your letter, however, it is clear that battery carcasses do not qualify as debris. They are considered to be containers, as explained below.

As discussed in detail in the preamble to the final rule establishing alternate treatment standards for hazardous debris, intact containers are not debris, and hence are not subject to the treatment standards for debris. 57 FR 37225 (August 18, 1992). In addition, in previous rulemakings EPA has stated that battery casings designed to hold free liquids for use other than storage are containers. I refer you specifically to 40 CFR 264.314(d)(3); 265.314(c)(3); and 55 FR 22637/2 (June 1, 1990). **Thus, such intact battery casings are not debris.**

In your letter, you state that EPA suggested, elsewhere in the preamble to the final debris rule, that batteries could be debris unless they are subject to a specific treatment standard. I believe you have based this statement on the discussion at 57 FR 37222 and footnote 10, which gives "lead acid or cadmium batteries" as an example of a debris subject to a specific treatment standard. Unfortunately, you then draw the inference that because mercury batteries are not mentioned in this footnote, they are therefore debris.

This is an incorrect conclusion. First, please note that the actual regulatory language does not contain the example of the lead acid battery. 57 FR at 37270. More important, as explained above, intact containers are never classified as debris. Consequently, the example in footnote 10 refers only to lead acid or cadmium batteries that are not intact. Such batteries would still not be subject to the treatment standards for debris because there is a more specific treatment standard for lead acid or cadmium batteries. The footnote does not, however, in any way vitiate the general principle that intact containers are not debris and that batteries are types of containers.

I hope this response, based on a thorough examination of the issue of concern, is helpful. If you need further information, please contact Richard Kinch, Chief of the Waste Treatment Branch in our Waste Management Division at (703) 308-8434.

Sincerely,

Bruce R. Weddle
Acting Director
Office of Solid Waste

RO 13638

FROM: Paul W. Martin

DATE: 03/12/2020

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