

<u>SUBJECT</u>		<u>DATE</u>
1253. Used Oil Filter Regulation – The Feds vs. Washington State	ENCORE	NOV 16, 2017
1254. PCB Radioactive Wastes and Exception Reporting	ENCORE	NOV 21, 2017
1255. Satellite Accumulation Requirements and Container Inspections	ENCORE	NOV 30, 2017
1256. Disposing of PCB Ballasts with PCB Potting Material	ENCORE	DEC 7, 2017
1257. Fluorescent Light Ballasts and PCB Annual Reporting		DEC 14, 2017
1258. 'Twas the Night Before Christmas – The Twenty-Fifth Annual Edition		DEC 21, 2017
1259. The Purpose of Keeping Containers Closed Except When Adding or Removing Wastes	ENCORE	DEC 28, 2017
1260. Satellite Accumulation and Product Vessel Cleanouts	ENCORE	JAN 4, 2018
1261. Conservative Declaration that Material is a Hazardous Waste	ENCORE	JAN 11, 2018
1262. Defining Criteria for Household Waste Exclusion	ENCORE	JAN 18, 2018
1263. The Household Waste Exclusion and Renovation Debris	ENCORE	JAN 25, 2018
1264. The Household Waste Exclusion and Renovation Debris – Part II	ENCORE	FEB 1, 2018
1265. The Mixtures Rule – Washington State vs. The Feds	ENCORE	FEB 8, 2018
1266. Spent Lead-Acid Batteries and Secondary Containment	ENCORE	FEB 15, 2018
1267. Spent Lead-Acid Batteries and Accumulation Time Limits	ENCORE	FEB 23, 2018
1268. CERCLA Hazardous Substances – A Brief Definition	ENCORE	MAR 1, 2018
1269. Radioactively Contaminated Lead-Acid Batteries and Hazardous Debris	ENCORE	MAR 8, 2018
1270. RCRA Treatment and the Two-Part Definition	ENCORE	MAR 15, 2018
1271. Who Wants to be a Generator!!!	ENCORE	MAR 22, 2018
1272. Who Wants to be a Generator Part 2!!!	ENCORE	MAR 29, 2018
1273. "No Smoking" Signs and Tobacco-Free Facilities		APR 5, 2018
1274. Aqueous Solutions and the Characteristic of Corrosivity	ENCORE	APR 12, 2018
1275. Aqueous Solutions and the Characteristic of Ignitability	ENCORE	APR 19, 2018
1276. PCB Bulk Product Wastes and the One Year Disposal Requirement	ENCORE	APR 26, 2018
1277. PCB Radioactive Wastes and Exception Reporting	ENCORE	MAY 3, 2018
1278. TSCA/PCB Determinations for Fluorescent Light Ballasts via the Manufacture Date	ENCORE	MAY 10, 2018
1279. RCRA Liquids, Free Liquids, and Releasable Liquids	ENCORE	MAY 17, 2018

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## TWO MINUTE TRAINING

**TO:** CH2M HILL PLATEAU REMEDIATION COMPANY

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

**SUBJECT:** RCRA LIQUIDS, FREE LIQUIDS, AND RELEASABLE LIQUIDS

**DATE:** MAY 17, 2018

<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 John Dent Lorna Dittmer Brian Dixon Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Melvin Lakes Richard Lipinski Jim McGrogan Stuart Mortensen Dave Richards Phil Sheely Connie Simiele Jennie Stults Jeff Westcott Jeff Widney	Bob Bullock Bill Cox Laura Cusack Sasa Kosjerina Jim Leary Anthony Nagel Robert Nielson Linda Petersen Fred Ruck Ray Swenson Wayne Toebe Daniel Turlington Dave Watson	Brett Barnes Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzalez Jr. Dashia Huff Mark Kamberg Jon McKibben Saul Martinez Jon Perry Christina Robison Lana Strickling Lou Upton	(TBD)  <u>DOE RL, ORP, WIPP</u>  Mary Beth Burandt Duane Carter Cliff Clark Tony McKarns Ellen Mattlin Scott Stubblebine	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Tom Gilmore Rob Gregory Gene Grohs James Hamilton Andy Hobbs Ryan Johnson Megan Lerchen Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Grant McCalmant Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Kirk Peterson	Jean Quigley Dan Saueressig Merrie Schilperoort Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Ted Wooley

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## TWO MINUTE TRAINING

**SUBJECT:** RCRA Liquids, Free Liquids, and Releasable Liquids

**Q:** What are the basic definitions of RCRA liquids, free liquids, and releasable liquids?

**A:** Per an EPA letter dated July 20, 1989, EPA defined RCRA liquid with three different definitions depending on the specific regulatory application.

A "liquid" was defined as the material (liquid phase) that is expressed from the waste in step 2 of the Extraction Procedure, Method 1310 (replaced by the Toxic Characteristic Leaching Procedure (TCLP), Method 1311). This definition applies to characteristic wastes in terms of ignitability, corrosivity and TCLP.

A "free liquid" was defined as the material that drips from the waste using Method 9095 (the paint filter test). This definition applies to determinations of whether waste is prohibited from land disposal per the prohibitions on liquid disposal at 40 CFR 264/265.314, "Special requirements for bulk and containerized liquids". Also, 40 CFR 260.10, defines free liquids as, "liquids which readily separate from the solid portion of a waste under ambient temperature and pressure".

A "releasable liquid" was defined as the material released from absorbed waste under landfill pressures. This definition applied to liquid wastes solidified with absorbents which could be released due to the overburden pressure present in a landfill. Per the July 20, 1989 EPA letter, the 1984 RCRA amendments banned the use of absorbent materials that would release liquids when buried in a landfill. However, this ban has apparently never been promulgated as a rule. On November 14, 2006, USEPA ("Find an Answer") documented that "on December 24, 1986, EPA proposed to add a section to 264/265.314 that would have stated that containers holding free liquids must not be placed in a landfill unless the containerized liquids or free liquids have been solidified and the waste/absorbent mixture does not release liquids as determined by [Test Method] 9096, among other things. However, it appears that this proposed addition was not finalized, as that language is not in the current section 264/265.314. Additional Federal Registers on this issue include a supplemental notice on June 24, 1987, and a notice of data availability from October 29, 1991." Therefore, "releasable liquid" is not a formal RCRA definition.

### SUMMARY:

- A "liquid" is the material (liquid phase) that is expressed from the waste in step 2 of Method 1310 (the Extraction Procedure), - replaced by Method 1311, the TCLP.
- A "free liquid" is the material that drips from the waste using Method 9095 (the Paint Filter Test).
- A "releasable liquid" is the material that would be released from the waste/absorbent mixture under the overburden pressure present in a landfill. However, this definition has never been finalized.

The July 20, 1989 EPA letter is attached. 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:** 5/17/18

**FILE:** 2MT\2018\051718.rtf

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** RCRA Liquids, Free Liquids, and Releasable Liquids

JUL 20 1989

9432.1989(04)

RO 13307

Mr. Jeffrey A. Leed  
Director - Waste Management  
Exide Corporation  
P. O. Box 14205  
Reading, PA 19612-4205

Dear Mr. Leed:

In response to your recent letter, while your understanding is correct with respect to 40 CFR 261.22 defining the characteristic of corrosivity, your letter appears to indicate that there is still some confusion over the RCRA definition of a liquid.

The term liquid has three different definitions in the RCRA program depending on the specific regulatory application. In addition to the general definition used in the characteristics, the other types of liquids include "free liquid" and "releasable liquid". These other definitions of "liquid" find application in the waste management standards dealing with land disposal. Specifically, the regulations prohibit the landfilling of containerized wastes containing "free liquids". Similarly, the amendments to RCRA passed in 1984, banned the use of absorbent materials that would release liquids under the overburden pressure present in a landfill (i.e., "releasable liquids"). The specific test procedures used in identifying the different types of liquids are:

**Liquid:**

A "liquid" is the material (liquid phase) that is expressed from the waste in step 2 of Method 1310 (the Extraction Procedure).

**Free Liquid:**

A "free liquid" is the material that drips from the waste using Method 9095 (the Paint Filter Test).

**Releasable Liquid:**

While we have not yet promulgated a specific test procedure for defining when a waste contains "releasable liquid", a draft procedure has been developed and proposed - The Liquid Release Test - method 9096.

Therefore, the first question to answer when characterizing a waste to determine if it exhibits the 40 CFR 261.22 (a)(2) definition of a corrosive waste, is whether the waste is a liquid. For this purpose the first definition, using step 2 of Method 1310, is to be used.

I hope that this helps to clear up any misunderstanding with respect to the hazardous waste identification characteristics. If you have any additional questions relative to waste testing, please contact my office at (202) 382-4761. For general questions on the hazardous waste identification characteristics, please call the Characteristics Section at (202) 382-4798.

Sincerely yours,

David Friedman, Chief  
Methods Section (OS-331)

cc: Devereaux Barnes / Reva Rubenstein

**FROM:** Paul W. Martin

**DATE:** 5/17/18

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