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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
1280. Satellite Accumulation Areas and the Three-Day Time Limit for Excess Accumulation		MAY 24, 2018
1281. Satellite Accumulation of Aerosol Cans and Determining the 55-Gallon Limit	ENCORE	MAY 31, 2018
1282. Universal Waste and Basis for the One Year Accumulation Time Limit	ENCORE	JUN 7, 2018
1283. F001 Degreaser versus F002 Solvent	ENCORE	JUN 14, 2018
1284. Hazardous Waste Determinations and Phase Separation	ENCORE	JUN 20, 2018
1285. PCB Certificates of Disposal and Manifesting Between Related Facilities		JUN 28, 2018
1286. PCB Concentrations and 10,000 PPM	ENCORE	JUL 5, 2018
1287. PCB Concentrations and 1,000 PPM	ENCORE	JUL 12, 2018
1288. Satellite Accumulation Containers and the Date of Accumulation Marking		JUL 19, 2018
1289. Satellite Accumulation Requirements in Washington State	ENCORE	JUL 26, 2018
1290. Satellite Accumulation Areas and Under the Control of the Operator		AUG 2, 2018
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1300. Purpose of the ≤90-day Hazardous Waste Accumulation Conditional Exclusion	ENCORE	OCT 11, 2018
1301. Regulatory Status of Used Oil Mixed with Diesel Fuel		OCT 18, 2019
1302. Recyclable Chemicals and Zombie Destruction	ENCORE	OCT 25, 2018
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1307. Characteristic Ignitable, Corrosive or Reactive Debris and Macroencapsulation	ENCORE	NOV 29, 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: CHARACTERISTIC IGNITABLE, CORROSIVE OR REACTIVE DEBRIS AND MACROENCAPSULATION

DATE: NOVEMBER 29, 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 Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Sasa Kosjerina 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 Jim Leary Anthony Nagel 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	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Tom Gilmore Rob Gregory 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: Characteristic Ignitable, Corrosive or Reactive Debris and Macroencapsulation

Q: [40 CFR 268.45\(a\)\(2\)](#), "Characteristic debris" states that hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity (ICR) "must be deactivated by treatment using one of the technologies identified in Table 1", Alternative Treatment Standards For Hazardous Debris. If a customer has an ICR debris destined for macroencapsulation, must the debris be deactivated, i.e., the characteristic removed, using a technology from Table 1 before macroencapsulation - again per Table 1; or can the debris be deactivated via any type of dilution and then macroencapsulated per Table 1?

A: WARNING: This will be a "Hang on to your hat; read it three times; and on the third time, read it real slow," Two Minute Training.

As background, in the [August 18, 1992, Federal Register](#) on page 37236, EPA stated,

"EPA is not providing the option of treating by existing treatment standards for these (ICR debris) wastes. This is because the existing treatment standard (for non-debris waste) for most ignitable, corrosive, or reactive wastes can be achieved by deactivation involving any type of dilution. Since this is the very result that the Agency is seeking to avoid, EPA is indicating in the rule that this option is not for this one class of debris" - (ICR).

EPA is not allowing dilution of ICR debris waste to deactivate the characteristics, and the generator claim that the formerly ICR debris has now met the Land Disposal Restriction (LDR) treatment standard. Under this scenario, it would appear that there is no need to use an alternative treatment standard of debris in Table 1 of 40 CFR 268.45 since the dilution deactivated the ICR debris.

However, the customer could dilute ICR waste by any means and then macroencapsulate per Table 1, thus ultimately meeting an applicable LDR treatment standard. The customer is not diluting the ICR debris to meet a designated LDR treatment standard as would be the case with an ICR non-debris waste having the treatment standard of deactivation (DEACT). The customer is diluting an ICR waste merely to deactivate the ICR characteristics prior to meeting a required alternative LDR treatment standard in Table 1, e.g., macroencapsulation for debris. Since the customer's debris is no longer ICR characteristic, the requirement of 40 CFR 268.45(a)(2) [deactivate the ICR] no longer applies. The customer is not claiming to meet an LDR standard via dilution since EPA specifically prohibits dilution to meet an LDR standard for ICR debris waste. Therefore, the customer's deactivated debris remains subject to LDR and once macroencapsulated, or treated by an appropriate method in Table 1, would meet the LDR standard.

SUMMARY:

- ICR characteristic debris must be deactivated per Table 1 of 40 CFR 268.45 when meeting an LDR alternative treatment standard.
- Dilution - other than a Table 1 method - is prohibited for ICR debris in terms of meeting LDR.
- Any type of dilution could be used for ICR debris if the deactivated debris is ultimately treated via an alternative treatment standard in Table 1 of 40 CFR 268.45, such as macroencapsulation.

Nothing is 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: 11/29/18

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