

<u>SUBJECT</u>		<u>DATE</u>
1188. RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario II	ENCORE	AUG 11, 2016
1189. RCRA Empty Containers vs. TSCA PCB Decontaminated Containers - Scenario III	ENCORE	AUG 18, 2016
1190. Product Spills and Waste Determinations	ENCORE	AUG 25, 2016
1191. Product Spills, Waste Determinations, and LDR	ENCORE	SEP 1, 2016
1192. Regulatory Status of Caustic Rinse Waters Contaminated with Trace Solvents	ENCORE	SEP 8, 2016
1193. Regulatory Status of Sand Blast Grit Contaminated with Trace Listed Solvents	ENCORE	SEP 15, 2016
1194. Hazardous Waste "F" Listings and Trace Contamination	ENCORE	SEP 22, 2016
1195. Hazardous Waste "F" Listings and Trace Contamination – Again!	ENCORE	SEP 29, 2016
1196. Hazardous Waste Determinations and Phase Separation		OCT 6, 2016
1197. Asbestos and DOT Relief	ENCORE	OCT 13, 2016
1198. PCB Containers and Concentration of PCBs	ENCORE	OCT 20, 2016
1199. PCB Analytical Waste Disposal Requirements	ENCORE	OCT 27, 2016
1200. PCB Analytical Waste Disposal Requirements – Water vs. Organic Liquids and Non-aqueous Inorganic Liquids		NOV 3, 2016
1201. Listed Waste Codes and Pre-RCRA Wastes	ENCORE	NOV 10, 2016
1202. Purpose of the ≤90-day Hazardous Waste Accumulation Exemption		NOV 17, 2016
1203. Used Oil Eligibility for Turkey and Ham Oils	ENCORE	NOV 23, 2016
1204. PCB Reporting and Recordkeeping Relief	ENCORE	DEC 1, 2016
1205. Defining Criteria for Household Waste Exclusion	ENCORE	DEC 8, 2016
1206. The Household Waste Exclusion and Renovation Debris	ENCORE	DEC 15, 2016
1207. 'Twas the Night before Christmas – The Twenty-Fourth Annual Edition		DEC 24, 2016
1208. The Household Waste Exclusion and Renovation Debris – Part II	ENCORE	DEC 29, 2016
1209. Absorbent Additions and Treatment		JAN 5, 2017
1210. Frozen RCRA Wastewater - DOT Liquid or Solid When Manifested?	ENCORE	JAN 12, 2017
1211. DOT Marking Specifications for the "UN", "NA" and "ID" Markings		JAN 19, 2017
1212. Satellite Accumulation within a ≤90-day Accumulation Area	ENCORE	JAN 26, 2017
1213. Washington State-Only Dangerous Waste Markings – Accumulation vs. Pre-Transport	ENCORE	FEB 2, 2017
1214. RCRA Empty Tanker Trailers and Listed Waste Codes	ENCORE	FEB 9, 2017
1215. RCRA Empty vs. DOT Empty	ENCORE	FEB 16, 2017
1216. RCRA Empty vs. DOT Empty II	ENCORE	FEB 23, 2017
1217. Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents	ENCORE	MAR 2, 2017
1218. Multiple Characteristic and Listed Hazardous Waste Codes and the "in lieu of" LDR Principle	ENCORE	MAR 9, 2017
1219. LDR Storage Prohibitions and the One-Year Rule	ENCORE	MAR 16, 2017
1220. LDR Storage Prohibitions and Treated Wastes	ENCORE	MAR 23, 2017
1221. LDR Storage Prohibitions and Treated Hazardous Debris or Contaminated Soil		MAR 30, 2017
1222. LDR Requirements for Universal Wastes		APR 6, 2017
1223. LDR Requirements for Spent Lead-Acid Batteries Being Reclaimed		APR 13, 2017
1224. When is When Defined for the RCRA Phrase "When Reclaimed"?	ENCORE	APR 20, 2017
1225. RCRA Characteristic of Ignitability and DOT Oxidizers	ENCORE	APR 27, 2017
1226. Safety Data Sheets (SDSs) and Hazardous Wastes	ENCORE	MAY 4, 2017
1227. Containers and Tanks – RCRA Wastes vs. TSCA PCB Wastes	ENCORE	MAY 11, 2017
1228. Universal Waste Lamps and Prohibition on Crushing	ENCORE	MAY 18, 2017
1229. Operating Record vs. Operating Log		MAY 25, 2017
1230. Operating Records Not Referenced in "Facility Recordkeeping"		JUN 1, 2017
1231. Used Oil and Weekly Inspections	ENCORE	JUN 8, 2017
1232. Used Oil, Secondary Containment and Response to Spills	ENCORE	JUN 15, 2017
1233. Used Oil and Keeping Containers Closed – Washington State vs. The Feds	ENCORE	JUN 21, 2017
1234. DOT Shipping of Damaged, Defective or Recalled Lithium Batteries	ENCORE	JUN 29, 2017
1235. Conditioned Exclusion for Listed Hazardous Waste Debris Treated via Extraction/Destruction	ENCORE	JUL 6, 2017
1236. Conditioned Exclusion for Characteristic Debris Treated via Immobilization	ENCORE	JUL 13, 2017
1237. Office Waste and RCRA Regulatory Status	ENCORE	JUL 20, 2017
1238. Office Waste Management	ENCORE	JUL 27, 2017
1239. RCRA EPA Identification Numbers – Site Specifics	ENCORE	AUG 3, 2017
1240. RCRA EPA Identification Numbers – Transporters		AUG 9, 2017
1241. Laboratory Standards and Applicability of the "U" or "P" Hazardous Waste Listings	ENCORE	AUG 17, 2017
1242. Laboratory Standards and Applicability of the "F" Listings	ENCORE	AUG 24, 2017
1243. Paint Wastes and The Applicability of the F001-F005 Listings to Ingredients	ENCORE	AUG 31, 2017
1244. F Listings and Ingredients in Commercial Chemical Product Formulations		SEP 7, 2017
1245. LDR Waste That is Both Listed and Characteristic Hazardous Wastes	ENCORE	SEP 14, 2017
1246. Mercury Wet Cell Batteries - Debris or Not Debris?	ENCORE	SEP 21, 2017
1247. The "POLYM" Alternative Treatment Standard for Certain D001 Hazardous Wastes	ENCORE	SEP 28, 2017
1248. Elementary Neutralization and RCRA Requirements	ENCORE	OCT 5, 2017
1249. LDR Treatment Standards – Waste-Specific vs. Alternative		OCT 12, 2017

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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: LDR TREATMENT STANDARDS – WASTE-SPECIFIC VS. ALTERNATIVE

DATE: OCTOBER 12, 2017

<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 Roni Ashley Tania Bates Rene Catlow Richard Clinton Larry Cole John Dent Brian Dixon Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Jeanne Kisielnicki Melvin Lakes Jim McGrogan Stuart Mortensen Dean Nester Dave Richards Phil Sheely Connie Simiele Jennie Stults Jeff Westcott Jeff Widney	Ron Brunke Bob Bullock Bill Cox Laura Cusack Lorna Dittmer Ted Hopkins Sasa Kosjerina Jim Leary Anthony Nagel Robert Nielson Linda Petersen Fred Ruck Ray Swenson Wayne Toebe Daniel Turlington Dave Watson Joel Williams	Brett Barnes Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzales Jr. Dashia Huff Mark Kamberg Edwin Lamm Candice Marple 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 Jeff DeLine Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Joe Fritts Lori Fritz Tom Gilmore Rob Gregory Gene Grohs James Hamilton Andy Hobbs Ryan Johnson Dan Kimball Megan Lerchen Richard Lipinski Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Marty Martin Grant McCalmant Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Mandy Pascual Kirk Peterson	Jean Quigley Dan Saueressig Merrie Schilperoort Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Kyle Webster Ted Wooley

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TWO MINUTE TRAINING

SUBJECT: LDR Treatment Standards – Waste-Specific vs. Alternative

Q: The September 21, 2017, Two Minute Training (2MT) ([092117](#)) concerning mercury wet cell batteries brought up the two possible land disposal restrictions (LDR) treatment standards via the waste-specific treatment standards at [40 CFR 268.40](#), i.e., RMERC (recycling of mercury), and the alternative treatment standards for debris at [40 CFR 268.45](#), e.g., macroencapsulation. If a generator has a hazardous waste that is eligible for an alternative treatment standard, must the waste-specific treatment standard be considered first or is either treatment standard available per the generator's discretion?

A: The short answer is based on an EPA website [Treatment Standards for Hazardous Waste Subject to Land Disposal Restrictions](#), which stated:

*“For certain types of hazardous waste, e.g., soil, debris, lab packs, and residues from high temperature (metals recovery), EPA established alternative treatment standards to allow for common sense management of these wastes. These treatment standards are **optional** and waste handlers can comply with either the “as-generated” treatment standards or the alternative standards.”*

Therefore, if a hazardous waste is eligible for an alternative treatment standard such as:

[40 CFR 268.42\(c\)](#), Treatment standards expressed as specified technologies, e.g., lab packs
[40 CFR 268.45](#), Treatment standards for hazardous debris,
[40 CFR 268.49](#), Alternative treatment standards for contaminated soil,

the generator has the option to treat the hazardous waste via the waste-specific LDR treatment standards at [40 CFR 268.40](#) or via the alternative treatment standards, if available. There is no requirement to first consider the waste-specific LDR treatment standards before using the alternative LDR treatment standards.

SUMMARY:

- Certain types of hazardous wastes have alternative LDR treatment standards.
- Generators have the option to treat these hazardous waste via the waste-specific or alternative LDR treatment standards
- There is no requirement to consider the waste specific standards before the alternative standards.

An excerpt from the EPA website is attached. If you have any questions, contact me at Paul_W_Martin@rl.gov or at (509) 376-6620.

FROM: Paul W. Martin

DATE: 10/12/17

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TWO MINUTE TRAINING

SUBJECT: LDR Treatment Standards – Waste-Specific vs. Alternative

What Are the LDR Alternative Treatment Standards?

Understanding Remediation Waste Management Requirements

- [Memorandum about the Management of Remediation Wastes Under RCRA dated October 14, 1998](#)
- [Section 8.3 of the LDR: Summary of Requirements document](#)

For certain types of hazardous waste, e.g., soil, debris, lab packs, and residues from high temperature (metals recovery), EPA established alternative treatment standards to allow for common sense management of these wastes. These treatment standards are **optional** and waste handlers can comply with either the “as-generated” treatment standards or the alternative standards.

Alternative Debris Treatment Standards

These standards apply to any material defined as debris that either is contaminated with (contains) a listed waste or exhibits a characteristic. There are three subcategories of debris:

- **Mixtures of debris types** - If hazardous debris consists of more than one type of debris (e.g., glass, metals or plastic), the waste handler must meet the treatment standard for each type of debris
- **Debris** may be comprised of virtually any manufactured object, plant, animal matter or geologic material bigger than a tennis ball. Debris is often generated when a building or structure is undergoing demolition or renovation.

Mixtures of contaminants types - If hazardous debris of one type is contaminated with more than one contaminant, then each of the contaminants must be treated with the specified treatment technology.

- **Waste polychlorinated biphenyls (PCBs)** - If hazardous debris is contaminated with PCBs, then the waste is subject to the treatment requirements specified at either [40 CFR part 761](#) (regulations for material controlled under the Toxic Substances Control Act) or [40 CFR section 268.45](#).

To meet the alternative debris standards, specific constituents must be treated before the debris can be land disposed. These comprise the “contaminants subject to treatment”. Once a determination is made regarding what constituents must be treated in the debris, the next step is determining what type of treatment or combination of treatment will address all the constituents. The alternative treatment standard for hazardous debris are divided into three technology types: **extraction, destruction, and immobilization**. Residues from the treatment of hazardous debris must be separated from the treated debris and treated to meet the waste-specific treatment standards in [40 CFR section 268.40](#).

If hazardous debris is treated with either an extraction or destruction treatment technology, and does not exhibit a hazardous waste characteristic it need not be managed in a hazardous waste unit. However, hazardous debris treated by immobilization remains hazardous and must be treated in a hazardous waste unit.

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