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1320.	Treated Hazardous Waste Used as Dust Suppressant	FEB 28, 2019
1321.	Decharacterized RCRA Waste - Manifesting and LDR Reporting	ENCORE MAR 7, 2019
1322.	Decharacterized Hazardous Waste Listed Solely for Non-Toxic Characteristics	ENCORE MAR 14, 2019
1323.	Decharacterized Wastes, ≤90-Day Accumulation Time Limits and LDR Storage Prohibition	ENCORE MAR 21, 2019
1324.	Decharacterized Wastes and the LDR Dilution Prohibition	ENCORE MAR 28, 2019
1325.	PCB Decontamination Standard with No Decontamination Performed	ENCORE APR 4, 2019
1326.	PCB Manifest Relief a.k.a., When is a PCB Manifest Not Required?	ENCORE APR 11, 2019
1327.	PCB Manifest Relief a.k.a., When is a PCB Manifest Not Required? – The Sequel	ENCORE APR 18, 2019
1328.	PCB Concentrations and Micrograms per Centimeters Squared (µg/cm <sup>2</sup> )	ENCORE APR 25, 2019
1329.	Operating Record vs. Operating Log	ENCORE MAY 2, 2019
1330.	Operating Records Not Referenced in the “Operating Record” Regulations	ENCORE MAY 9, 2019
1331.	Washington State Used Oil and Mixtures with Other Materials	ENCORE MAY 16, 2019
1332.	Used Oil Filter Regulation – The Feds vs. Washington State	ENCORE MAY 23, 2019
1333.	Printed Circuit Board Recycling – Shredded vs. Whole	ENCORE MAY 30, 2019
1334.	Universal Waste Alkaline Batteries and Self-Transportation	ENCORE JUN 6, 2019
1335.	Universal Waste Lithium Batteries and Self-Transportation	ENCORE JUN 13, 2019
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1337.	Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch	ENCORE JUN 27, 2019
1338.	Unused Paraformaldehyde - U Listed Hazardous Waste or Not?	ENCORE JUL 3, 2019
1339.	The Hazardous Waste Characteristic of Reactivity (D003)	ENCORE JUL 11, 2019
1340.	Central Accumulation Areas and Signage Requirements	ENCORE JUL 18, 2019
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1343.	Paint Wastes and the Applicability of the F001-F005 Listings to Ingredients	ENCORE AUG 8, 2019
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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	ENCORE 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	ENCORE SEP 26, 2019
1351.	PCB Waste Regulation and April 18, 1978 vs. July 2, 1979	ENCORE 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
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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

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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:** MULTIPLE CHARACTERISTIC HAZARDOUS WASTE CODES AND UNDERLYING HAZARDOUS CONSTITUENTS

**DATE:** NOVEMBER 21, 2019

<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>
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## TWO MINUTE TRAINING

**SUBJECT:** Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents

**Q:** A nonwastewater waste consists of 50% acetone and 50% benzene. The hazardous waste codes assigned to this wastestream are D001 (ignitability) for the acetone and benzene, and D018 for the benzene. The LDR treatment standard at [40 CFR 268.40](#) for the acetone/benzene mixture (D001 High Total Organic Constituents [TOC]) is CMBST (thermal treatment), RORGS (recover organics) or POLYM (polymerization), and no requirement to treat for underlying hazardous constituents (UHCs). The LDR treatment standard for the benzene (D018) is 10 ppm totals, benzene and treat for UHCs. Is the acetone constituent a UHC for the D018 waste code, or is the acetone constituent not a UHC since the LDR treatment for the acetone would be addressed by the D001 waste code - CMBST, RORGS or POLYM / No UHCs?

**A:** Note - This is a "Read Real Slow" edition of the Two Minute Training.

The above question was submitted to USEPA Headquarters and USEPA's response was:

*"You are correct, D001 High TOC waste does not require treatment for underlying hazardous constituents pursuant to 40 CFR §268.40. There is no treatment standard for D001 High TOC wastewaters and the D001 High TOC nonwastewaters require only treatment to a specified treatment technology. You are also correct that D018 requires treatment for underlying hazardous constituents pursuant to §268.40.*

*However, waste must meet treatment standards for all applicable waste codes before land disposal (§268.9(b)). Therefore, if a waste is appropriately characterized as two different waste codes, the treatment standards for both waste codes must be applied. The waste must meet treatment standards for all applicable waste codes before land disposal (§268.9(b)). D018 requires treatment for underlying hazardous constituents, which include acetone, pursuant to §268.40."*

Therefore, the acetone constituent in this scenario would be a UHC to the D018 characteristic waste code regardless that the acetone exhibits the D001 characteristic of ignitability with an LDR treatment standard that does not require UHC treatment. All LDR treatment standards for both waste codes apply.

Note that the "in lieu of" principle at [40 CFR 268.9\(b\)](#), which can sometimes override a UHC, does not apply in this scenario since a listed waste code is not present, e.g., F003 for the acetone. Had this been an F003 (acetone) / D018 (benzene) waste mixture, there would be no UHCs since both constituents are specifically addressed by their corresponding hazardous waste codes, i.e., there is no need for the acetone to be a UHC to D018 since the F003 treatment standard would specifically address acetone.

### SUMMARY:

- D001 High TOC nonwastewaters only require treatment to a specified treatment technology (CMBST, RORGS, or POLYM) and do not require treatment for UHCs.
- D018 nonwastewaters do require treatment for UHCs.
- A waste consisting of both D001 and D018 waste codes must meet all applicable treatment standards and therefore a D001 constituent such as acetone would be a UHC to the D018 waste code.

40 CFR 268.9 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:** 11/21/19

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents

### 40 CFR §268.9 Special rules regarding wastes that exhibit a characteristic

- (a) The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subpart D of this part. This determination may be made concurrently with the hazardous waste determination required in §262.11 of this chapter. For purposes of part 268, the waste will carry the waste code for any applicable listed waste (40 CFR part 261, subpart D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (40 CFR part 261, subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section. If the generator determines that their waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of §268.42, Table 1), the generator must determine the underlying hazardous constituents (as defined at §268.2(i)) in the characteristic waste.
- (b) Where a prohibited waste is both listed under 40 CFR part 261, subpart D and exhibits a characteristic under 40 CFR part 261, subpart C, the treatment standard for the waste code listed in 40 CFR part 261, subpart D will operate in lieu of the standard for the waste code under 40 CFR part 261, subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.
- (c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under 40 CFR part 261, subpart C may be land disposed unless the waste complies with the treatment standards under subpart D of this part.
- (d) Wastes that exhibit a characteristic are also subject to §268.7 requirements, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generator's or treater's on-site files. The notification and certification must be updated if the process or operation generating the waste changes and/or if the subtitle D facility receiving the waste changes.
- (1) The notification must include the following information:
- (i) Name and address of the RCRA Subtitle D facility receiving the waste shipment; and
  - (ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents (as defined in §268.2(i)), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.
- (2) The certification must be signed by an authorized representative and must state the language found in §268.7(b)(4).
- (i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in §268.7(b)(4)(iv) applies.