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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
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1344.	F Listings and Ingredients in Commercial Chemical Product Formulations	ENCORE AUG 15, 2019
1345.	PCB Containers and ≥50 ppm	ENCORE AUG 22, 2019
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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
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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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1369.	The Mixtures Rule – Washington State vs. The Feds	ENCORE FEB 6, 2020

## TWO MINUTE TRAINING

**TO:** CH2M HILL PLATEAU REMEDIATION COMPANY

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

**SUBJECT:** THE MIXTURES RULE – WASHINGTON STATE VS. THE FEDS

**DATE:** FEBRUARY 6, 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>
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## TWO MINUTE TRAINING

**Q:** What is the basic definition of “The Mixtures Rule” and are there any differences in the mixtures rule between Washington State and the Federal regulations?

**A:** The mixtures rule at Washington Administrative Code ([WAC 173-303-070\(2\)](#)), “Designation of dangerous waste”, and at [40 CFR 261.3\(a\)\(iv\)](#) and (g), “Definition of hazardous waste”, basically states that a mixture of a solid waste and a listed hazardous waste remains a listed hazardous waste. The primary difference between WAC 173-303-070(2) and 40 CFR 261.3(a)/(g) is that Washington State did not adopt all the language from 40 CFR 261.3(g) concerning additional mixture scenarios. According to 40 CFR 261.3(g)(1), a listed hazardous waste listed solely for one or more characteristics of ignitability, corrosivity, or reactivity (ICR) is not a hazardous waste, if the resulting mixture of waste no longer exhibits any characteristics of hazardous waste. An example would be an F003 hazardous waste such as waste acetone, which is listed solely for ignitability. If the F003 hazardous waste is mixed with a solid waste and the ignitable characteristic is removed, the mixture is not a hazardous waste. [Note that the Land Disposal Restrictions (LDR) at [40 CFR 268](#) continue to apply until the LDR treatment standards are met.] However, WAC 173-303-070(2) did not adopt the “listed solely for...” language. Therefore, if an F003 listed dangerous waste is mixed with a solid waste, the resulting mixture remains a Washington State listed dangerous waste (WA State-Only F003) even if the resultant mixture exhibits no characteristics or Washington State criteria for dangerous waste.

### SUMMARY:

- The Mixtures Rule basically states that a listed hazardous waste mixed with solid waste remains a listed hazardous waste.
- In addition, a Federal hazardous waste listed solely for the characteristics of ignitability, corrosivity or reactivity is not a hazardous waste if mixed with a solid waste and the resulting mixture exhibits no characteristics of hazardous waste.
- However, Washington State did not adopt the above Federal language and therefore a mixture of a listed dangerous waste and a solid waste remains a Washington State dangerous waste, even if the resulting mixture exhibits no Federal hazardous waste characteristics or dangerous waste state criteria.

Excerpts from WAC 173-303-070(2) and 40 CFR 261.3(a) and (g) 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.

## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** The Mixtures Rule – Washington State vs. The Feds

### 40 CFR 261.3 Definition of hazardous waste.

- (g)
- (1) A hazardous waste that is listed in subpart D of this part solely because it exhibits one or more characteristics of ignitability as defined under §261.21, corrosivity as defined under §261.22, or reactivity as defined under §261.23 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in subpart C of this part.  
*[No mixing with a solid waste has occurred. PWMartin comment]*
  - (2) The exclusion described in paragraph (g)(1) of this section also pertains to:
    - (i) Any mixture of a solid waste and a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (a)(2)(iv) of this section; and  
*[Note: The highlighted wording is not in the WA dangerous waste regulations. WA generators cannot mix solid waste with listed hazardous waste solely listed for ignitability, corrosivity or reactivity and then manage as nonregulated wastes. PWMartin comment]*
    - (ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in subpart D of this part solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph (c)(2)(i) of this section.
  - (3) Wastes excluded under this section are subject to part 268 of this chapter (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

### WAC 173-303-070 Designation of dangerous waste.

- (2)
- (a) Except as provided at WAC 173-303-070 (2)(c), once a material has been determined to be a dangerous waste, then any solid waste generated from the recycling, treatment, storage, or disposal of that dangerous waste is a dangerous waste unless and until: ...
  - (c)
    - (i) A dangerous waste that is listed in WAC 173-303-081(1) or 173-303-082(1) solely because it exhibits one or more characteristics of ignitability as defined under WAC 173-303-090(5), corrosivity as defined under WAC 173-303-090(6), or reactivity as defined under WAC 173-303-090(7) is not a dangerous waste, if the waste no longer exhibits any characteristic of dangerous waste identified in WAC 173-303-090 or any criteria identified in WAC 173-303-100. *[Again, no mixing with a solid waste has occurred. PWMartin comment]*
    - (ii) The exclusion described in (c)(i) of this subsection also pertains to:
      - (A) Any solid waste generated from treating, storing, or disposing of a dangerous waste listed in WAC 173-303-081(1) or 173-303-082(1) solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under (a) and (b) of this section.
      - (B) Wastes excluded under this section are subject to 40 CFR Part 268, which is incorporated by reference at WAC 173-303-140 (2)(a) (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.