

<u>SUBJECT</u>		<u>DATE</u>
1056. Hazardous Waste Tanks and the Less than 90-Day Accumulation Time Limit	ENCORE	APR 23, 2015
1057. Decharacterized RCRA Waste - Manifesting and LDR Reporting	ENCORE	APR 30, 2015
1058. Decharacterized Hazardous Waste Listed Solely for Non-Toxic Characteristics	ENCORE	MAY 7, 2015
1059. Decharacterized Wastes, <90-Day Accumulation Time Limits and LDR Storage Prohibition	ENCORE	MAY 14, 2015
1060. Decharacterized Wastes and the LDR Dilution Prohibition	ENCORE	MAY 21, 2015
1061. Hazardous Debris Macroencapsulation and Size Reduction	ENCORE	MAY 28, 2015
1062. Universal Waste Lamps and Prohibition on Crushing		JUN 4, 2015
1063. F003 Listed Hazardous Waste and the 10% Rule	ENCORE	JUN 11, 2015

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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:** F003 LISTED HAZARDOUS WASTE AND THE 10% RULE

**DATE:** JUNE 11, 2015

<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 Ty Blackford Bob Cathel 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 Anthony Nagel Dean Nester Dave Richards Phil Sheely Connie Simiele Roni Swan Michael Waters Jeff Widney	Brett Barnes Ron Brunke Bill Cox Laura Cusack Lorna Dittmer Rick Engelmann Ted Hopkins Jim Leary Dale McKenney Jon McKibben Rick Oldham Linda Petersen Fred Ruck Jennie Seaver Ray Swenson Wayne Toebe Lee Tuott Daniel Turlington Dave Watson Joel Williams	Jerry Cammann Jeff Ehlis Garin Erickson Lori Fritz Panfilo Gonzales Jr. Dashia Huff Mark Kamberg Edwin Lamm Candice Marple Saul Martinez Jon Perry Thomas Pysto Christina Robison Don Rokkan Lana Strickling Lou Upton	(TBD)  <u>DOE RL, ORP, WIPP</u>  Mary Beth Burandt Cliff Clark Mike Collins Tony McKarns Ellen Mattlin Greg Sinton Scott Stubblebine	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Greta Davis Jeff DeLine Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Joe Fritts 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 Grant McCalmant Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Mandy Pascual Kirk Peterson Jean Quigley	Dan Saueressig Merrie Schilperoord Joelle Moss Glen Triner Greg Varljen Julie Waddoups Kyle Webster Jeff Westcott Ted Wooley

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## TWO MINUTE TRAINING

**SUBJECT:** F003 Listed Hazardous Waste and the 10% Rule

**Q:** A customer has a solvent wastestream that contained, before use, 50% xylene and 50% acetone. Is this wastestream an F003 listed hazardous waste?

**A:** Per [WAC 173-303-9904](#), "Dangerous waste sources list" [[40 CFR 261.31](#)] an F003 waste is basically:

- A spent solvent that contained before use, only F003 constituents, or;
- A spent solvent that is a mixture and contained, before use, any F003 constituents and, 10% or more of one or more of any solvent constituents listed in F001, F002, F004, and F005.

Since the customer's waste contained before use, only F003 constituents (50% xylene and 50% acetone) the waste solvent would be an F003 listed hazardous waste. However, if the waste solvent had contained before use, 50% xylene and 50% mineral spirits (a non F-listed ignitable waste), the resultant waste would not meet the F003 listing and would most likely designate as a D001 characteristic waste for ignitability. Even though the xylene percentage in this xylene/ mineral spirits mixture would be well over 10%, the F003 definition only applies the 10% rule to the F001, F002, F004, and F005 constituents. If a spent solvent is not comprised of 100% F003 constituents; OR if a spent solvent contains any amount of F003 constituents but less than 10% of one or more F001, F002, F004, or F005 constituents, the wastestream cannot meet the F003 listing description. The wastestream may exhibit one or more characteristics of hazardous waste, but it cannot be an F003 listed hazardous waste.

A variation of the above wastestream that contained before use, 50% xylene (F003 constituent), 40% mineral spirits (ignitable characteristic), and 10% toluene (F005 constituent), would meet the definition of an F003 and an F005 listed hazardous waste. This material would have contained before use, any amount of an F003 constituent (xylene) and contained 10% or more of an F005 constituent (toluene). Hence the F003/F005 listing would apply along with the D001 characteristic code to address the mineral spirits.

In order to properly characterize waste solvents per the F001 through F005 listings, it must be understood that the 10% rule for F003 is different from the 10% rule for F001, F002, F004 and F005. F003 basically states that a material must be 100% F003 constituents; OR contain any amount of F003 constituents and also include 10% or more of one or more F001, F002, F004, or F005 constituents. On the other hand, the F001, F002, F004 and F005 listings state that the material must contain, before use, 10% or more of F001, F002, F004 and/or F005 listed constituents. There is no reference to F003.

### SUMMARY:

- An F003 listed hazardous waste is a spent solvent that contained before use:
  - Only the F003 constituents xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; or
  - Any amount of F003 constituents and 10% or more of one or more F001, F002, F004, or F005 constituents.

A table of examples of F003 listed waste variations is attached to the e-mail. If you have any questions, please contact me at Paul\_W\_Martin@rl.gov or at (509) 376-6620.

**FROM:** Paul W. Martin

**DATE:** 6/11/15

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## TWO MINUTE TRAINING - ATTACHMENT

**SUBJECT:** F003 Listed Hazardous Waste and the 10% Rule

Example	WASTE SOLVENT CONSTITUENTS AND % "BEFORE USE"	POTENTIAL WASTE CODE LISTING or CHARACTERISTIC	F003 %	F001, F002, F004, F005 % TOTALS	Designated F Codes
1	100% XYLENE	F003	100%	0%	F003
2	25% ACETONE 75% XYLENE	F003 F003	100%	0%	F003
3	25% ACETONE 25% METHANOL 50% XYLENE	F003 F003 F003	100%	0%	F003
4	10% XYLENE 90% MINERAL SPIRITS	F003 D001	10%	0%	N/A*
5	4% ACETONE 5% TETRACHLOROETHYLENE (DEGREASER) 91% MINERAL SPIRITS	F003 F001 D001	4%	5%	N/A*
6	1% ACETONE 11% METHYLENE CHLORIDE 88% NAPHTHALENE	F003 F002 D001	1%	11%	F002 F003
7	1% CARBON TETRACHLORIDE (DEGREASER) 1% CRESOLS 1% CARBON DISULFIDE 8% XYLENE 89% DIESEL	F001 F004 F005 F003 D001	8%	3%	N/A*
8	10% DIESEL 90% BENZENE	D001 F005	0%	90%	F005
9	40% METHYLENE CHLORIDE 9% CRESYLIC ACID 51% TOLUENE	F002 F004 F005	0%	100%	F002 F004 F005
10	1% CARBON TETRACHLORIDE (DEGREASER) 1% CRESOLS 7% CARBON DISULFIDE 91% DIESEL	F001 F004 F005 D001	0%	9%	N/A*

\* Characteristic codes may apply but will not be identified in this table.

CONSTITUENT PERCENTAGES		Applicable F Code(s)
F003%	F001, F002, F004, F005%	
100%	0%	F003
> 90%	< 10%	Not Applicable
> 0% and ≤ 90%	≥ 10%	F003 and other applicable F001, F003, F004 and/or F005

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