

<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
1064. F001 - F005 Listed Hazardous Waste and the 10% Rule	ENCORE	JUN 18, 2015
1065. Macroencapsulation of Hazardous Debris and Presence of Free Liquids	ENCORE	JUN 25, 2015
1066. DOT Shipping of Damaged, Defective or Recalled Lithium Batteries		JUL 1, 2015
1067. Used Oil Eligibility for Animal and Vegetable Oils	ENCORE	JUL 9, 2015
1068. Used Oil Eligibility for Petroleum Oils Mixed with Animal or Vegetable Oils		JUL 16, 2015
1069. Conditioned Exclusion for Listed Hazardous Waste Debris Treated via Extraction/Destruction	ENCORE	JUL 23, 2015
1070. Conditioned Exclusion for Characteristic Debris Treated via Immobilization		JUL 30, 2015
1071. RCRA Personnel Training and Classroom Training vs. Online Training		AUG 6, 2015
1072. PCB Decontamination Standards with No Decontamination Performed		AUG 13, 2015
1073. PCB Manifest Exceptions a.k.a. When is a PCB Manifest Not Required	ENCORE	AUG 19, 2015
1074. PCB Manifest Relief a.k.a. When is a PCB Manifest Not Required – The Sequel		AUG 27, 2015
1075. Hazardous Debris and Radioactively Contaminated Cadmium Batteries	ENCORE	SEP 3, 2015
1076. Hazardous Debris and Radioactively Contaminated Lead Acid Batteries	ENCORE	SEP 10, 2015
1077. Mercury Wet Cell Batteries - Debris or Not Debris	ENCORE	SEP 17, 2015
1078. Hazardous Debris and Non-Radioactive Lead Acid Batteries		SEP 24, 2015
1079. Unused Paraformaldehyde - U Listed Hazardous Waste or Not?	ENCORE	OCT 1, 2015
1080. CAS Numbers and the Hazardous Waste "U" and "P" Listings	ENCORE	OCT 8, 2015
1081. Universal Waste One Year Accumulation and Multiple Handlers	ENCORE	OCT 15, 2015
1082. LDR Notifications and F001-F005 Constituents of Concern	ENCORE	OCT 29, 2015
1083. LDR Notifications and F001-F005 Constituents of Concern – Again	ENCORE	NOV 5, 2015
1084. LDR Notifications and F001-F005 Constituents of Concern - One Last Time	ENCORE	NOV 12, 2015
1085. DOT and Terminal Protection of Alkaline Batteries	ENCORE	NOV 19, 2015
1086. Used Oil and Keeping Containers Closed – WAC 173-303 vs. 40 CFR 279		NOV 24, 2015
1087. PCB Weight Determinations	ENCORE	DEC 3, 2015
1088. Satellite Accumulation Requirements and Container Inspections	ENCORE	DEC 10, 2015
1089. 'Twas The Night Before Christmas - The Twenty-Third Annual Edition	ENCORE	DEC 24, 2015
1090. Satellite Accumulation and 85-Gallon Containers	ENCORE	DEC 31, 2015
1091. PCB Date Removed From Service Notations – On the Item or In a Log	ENCORE	JAN 7, 2016
1092. The Date Removed From Service Marking on the PCB Mark	ENCORE	JAN 14, 2016
1093. Generator Weekly Inspection Log Documentation – Federal vs. WA State	ENCORE	JAN 21, 2016
1094. Used Oil and Weekly Inspections	ENCORE	JAN 28, 2016
1095. TSCA/PCB Determinations for Fluorescent Light Ballasts via the Manufacture Date	ENCORE	FEB 4, 2016
1096. PCB Containers and Multiple Removed From Service Dates	ENCORE	FEB 11, 2016
1097. Generator Inspection Logs and Corrective Action Documentation	ENCORE	FEB 18, 2016
1098. PCB Concentrations and Micrograms per Centimeters Squared (µg/cm ²)		FEB 25, 2016
1099. RCRA Empty Containers and Removing as Much Waste as Possible	ENCORE	MAR 3, 2016
1100. PCB Incineration and "Six Nines" Destruction Removal Efficiency Criteria	ENCORE	MAR 10, 2016
1101. RCRA Treatment and The Two-Part Definition		MAR 17, 2016
1102. D002 Waste and Dilution as Adequate LDR Treatment	ENCORE	MAR 24, 2016
1103. Satellite Accumulation of Aerosol Cans and Determining the 55-Gallon Limit		MAR 31, 2016
1104. Satellite Accumulation and Process Location Changes	ENCORE	APR 7, 2016
1105. Satellite Accumulation Prior to and After Recycling		APR 14, 2016
1106. Method Detection Limits and Hazardous Waste Determinations	ENCORE	APR 21, 2016
1107. Method Detection Limits and Hazardous Waste Determinations II	ENCORE	APR 28, 2016
1108. Radioactive Lead Solids vs. Non-radioactive Lead Contaminated Debris	ENCORE	MAY 5, 2016
1109. PCB Bulk Product Wastes and the One Year Disposal Requirement		MAY 12, 2016
1110. PCB Waste Storage Limitations and the One-Year Extension		MAY 19, 2016
1111. PCB Waste Storage Limitations and the PCB Radioactive Waste Exemption		MAY 26, 2016
1112. Separating Hazardous Debris and Hazardous Nondebris	ENCORE	JUN 2, 2016
1113. Product Expiration Dates and Solid Waste Determinations (Reverse Distribution)	ENCORE	JUN 9, 2016
1114. Satellite Accumulation Areas and Incompatible Wastes		JUN 16, 2016
1115. Satellite Accumulation Areas and Ignitable Wastes		JUN 22, 2016
1116. Universal Waste, Incandescent Bulbs and Nonhazardous Bulbs		JUN 30, 2016

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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: UNIVERSAL WASTE, INCANDESCENT BULBS AND NONHAZARDOUS BULBS

DATE: JUNE 30, 2016

<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 Bob Cathel Rene Catlow Richard Clinton Larry Cole John Dent Brian Dixon Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Jeanne Kisielnicki Melvin Lakes Marty Martin Jim McGrogan Stuart Mortensen Dean Nester Dave Richards Phil Sheely Connie Simiele Jennie Stults Michael Waters Jeff Westcott Jeff Widney	Brett Barnes Mitch Boyd Ron Brunke Bill Cox Laura Cusack Lorna Dittmer Rick Engelmann Ted Hopkins Sasa Kosjerina Jim Leary Dale McKenney Jon McKibben Rick Oldham Anthony Nagel Linda Petersen Fred Ruck Ray Swenson Wayne Toebe Daniel Turlington Dave Watson Joel Williams	Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzales Jr. Dashia Huff Mark Kamberg Edwin Lamm Candice Marple Saul Martinez Jon Perry Christina Robison Lana Strickling Lou Upton	(TBD) <u>DOE RL, ORP, WIPP</u> Mary Beth Burandt Duane Carter Cliff Clark Mike Collins Tony McKarns Ellen Mattlin Greg Sinton 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 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: Universal Waste, Incandescent Bulbs and Nonhazardous Bulbs

Q: According to [WAC 173-303-573](#), “Standards for universal waste management” [[40 CFR 273](#)] and the definition of “lamp” at [WAC 173-303-040](#), “Definitions” [[40 CFR 273.9](#)], examples of universal waste lamps are fluorescent, mercury vapor, metal halide, high-pressure sodium and neon. Since incandescent bulbs were not provided as an example in the definition of lamps, are incandescent bulbs eligible for management as universal wastes? And what about nonhazardous bulbs, can they be managed as universal wastes along with the hazardous waste lamp bulbs?

A: The definition at WAC 173-303-040 states that lamps “include, but are not limited to...” the lamps as described. Therefore it is implied that other types of bulbs could qualify for management as universal wastes.

Confirmatory information of the universal waste status of incandescent bulbs can be found in the [Response to Comments Document/Final Rule for Hazardous Waste Lamps](#) which included several comments noting that incandescent bulbs were not specifically referenced in the universal waste regulations. In response to those comments, EPA stated on page 4 of 19:

“The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps.”

Therefore, any waste lamp that exhibits any characteristic of hazardous waste meets the definition of hazardous waste lamp and can qualify for management as a universal waste. Incandescent bulbs have a lead button as the electrical contact and could exhibit the D008 hazardous characteristic of lead.

Concerning nonhazardous waste lamps, EPA did not impose hazardous waste determinations on universal waste since the purpose of universal waste regulations was to encourage, as opposed to discourage, recycling. EPA hoped that the universal waste regulations were simple and basic enough to allow persons to manage universal wastes without placing too much emphasis on whether they are hazardous or not. In the [May 11, 1995, Federal Register](#) on page 25504, addressing a similar situation with nonhazardous batteries, EPA stated:

“...the Agency continues to believe that the universal waste regulations are simple and basic enough that it will be easier and more efficient to manage all kinds of batteries, and particularly mixed batteries, under the universal waste system rather than making individual determinations about batteries or battery types.”

Therefore, even nonhazardous lamps (or batteries, or mercury-containing equipment) can be recycled as universal waste since this could divert another wastestream from disposal in a municipal landfill. As always, the recycling vendor should be consulted to ensure that the types of universal wastes being recycled are acceptable at their facility.

SUMMARY:

- Examples of universal waste lamps include but are not limited to, fluorescent, mercury vapor, metal halide, high-pressure sodium and neon.
- Incandescent bulbs are not specifically mentioned but are included in the definition of universal waste lamps.
- EPA clarified that all waste lamps exhibiting a hazardous waste characteristic meet the definition of universal waste lamps and that nonhazardous lamps too can be managed as universal wastes.

An excerpt from EPA’s Response to Comments (page 4 of 19) is attached. If you have any questions, please contact me at Paul_W_Martin@rl.gov” or (509) 376-6620.

FROM: Paul W. Martin

DATE: 6/30/16

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TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Universal Waste, Incandescent Bulbs and Nonhazardous Bulbs

Response to Comments Document / Final Rule for Hazardous Waste Lamps

DCN SCSP-00077

COMMENTS U.S. Department of Energy

SUBJECT UNWAS2

COMMENT

Incandescent lamps are not listed in Subpart D of 40 CFR Part 261. Examples of incandescent lamps include standard light bulbs; vehicle dome lights, headlights, and tail lights; safety exit lights; and other types of emergency lights. Typically, all incandescent lamps are constructed of lead soldered bases (95 percent lead in solder) and flare glass (20 percent lead in glass). Incandescent lamps generally fail the toxicity characteristic test for lead by the TCLP method. This determination is based on TCLP data and information received from lighting manufacturers. Incandescent lamps generally meet the proposed criteria of 40 CFR 273.2(a)(1) (i.e., that the candidate waste stream exhibits one or more of the characteristics identified in 40 CFR Part 261).

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards). Incandescent lamps would be considered to fall under the category of hazardous waste lamps. However, it appears most of these lamps are generated by households or conditionally exempt small quantity generators which are already exempt or excluded from RCRA Subtitle C.

FROM: Paul W. Martin

DATE: 6/30/16

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