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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
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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

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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: REGULATORY STATUS OF CHROMATED, COPPER, ARSENATE, (CCA) WOOD AS WOOD MULCH

DATE: JUNE 27, 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>
Richard Austin Tania Bates Rene Catlow Richard Clinton Larry Cole Laura Cusack John Dent Lorna Dittmer Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Sasa Kosjerina Melvin Lakes Richard Lipinski Stuart Mortensen Dave Richards Phil Sheely Connie Simiele Jeff Westcott	Jeff Bramson Bob Bullock Frank Carleo Bill Cox Noah Cruz Jeanne Elkins Jonathan Fullmer Ted Hopkins Tad Karschnia Barry Lawrence Jim Leary Diane Leist Mitch Marrott Stewart McMahan Brian Mitcheltree Anthony Nagel Linda Petersen Fred Ruck Sean Sexton Dave Shea Ray Swenson Kat Thompson Wayne Toebe Eric Trotta Daniel Turlington Dave Watson	Brett Barnes Michael Carlson Mike Demiter Kip George Jerry Cammann Jeff Ehli Garin Erickson Panfilo Gonzalez Jr. Dashia Huff Mark Kamberg Jon McKibben Saul Martinez Matt Mills Carly Nelson Michelle Oates Eric Pennala Jon Perry Christina Robison Christian Seavoy David Shaw John Skoglie Lana Strickling Greg Sullivan	(TBD) <u>DOE RL, ORP, WIPP</u> Mary Beth Burandt Duane Carter Al Farabee Tony McKarns	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Darrin Faulk Tom Gilmore Rob Gregory James Hamilton Andy Hobbs Ryan Johnson Megan Lerchen Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Grant McCalmant Steve Metzger Tony Miskho Tom Moon Chuck Mulkey Kirk Peterson	Jean Quigley Dan Saueressig Merrie Schilperoort Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Ted Wooley

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TWO MINUTE TRAINING

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

Q: The crazy next-door neighbors are tired of replacing their flower garden mulch every spring so this coming fall they want to shred and chip some old pressure treated wood preserved with chromated copper arsenate (CCA). Their theory is that the CCA mulch will last for many years (very true) versus the single year for untreated mulch. Not even taking into consideration the increased CCA leaching from the mulched wood, (or a possible household hazardous waste exemption), should our crazy neighbors be concerned about placing shredded CCA on the ground in terms of basic hazardous waste compliance.

A: These neighbors are crazy so of course they should be concerned.

Per [40 CFR 261.4](#), “Exclusions”, paragraph (b)(9) [[WAC 173-303-071\(3\)\(g\)](#)] it states:

“Solid wastes which are not hazardous wastes.

Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.”

So, there is an exclusion for discarded CCA; however, it is for wood utilized for its “intended end use”. Per an EPA guidance memo dated January 6, 2004, entitled, “Wood Mulch Derived from Waste Lumber Preserved with Chromated Copper” ([RO 14689](#)) it states:

“This exemption applies to CCA-treated lumber where “...the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials' intended end use.” Any CCA-treated wood used to produce wood mulch is not the “...materials' intended end use,” therefore wood mulch produced from CCA-treated wood is not exempt from regulation as hazardous waste under 40 CFR 261.4(b)(9).”

Since our crazy neighbors’ mulch was not the intended end use of the CCA wood, the mulch is not eligible for the solid waste exemption at [WAC 173-303-071\(3\)\(g\)](#) or [40 CFR 261.4\(b\)\(9\)](#). Hence our crazy neighbors have most likely placed D004 (arsenic) and D007 (chromium) hazardous waste in their flower garden - even if exempt per the household hazardous waste exclusion.

SUMMARY:

- Discarded CCA treated wood that has been used for its intended end use is eligible for the solid waste exemption at [WAC 173-303-071\(3\)\(g\)](#) and [40 CFR 261.4\(b\)\(9\)](#).
- Discarded CCA treated wood that has been shredded and chipped for use as mulch is not eligible for the solid waste exemption since it was not the intended end use.
- Our crazy neighbors now have D004 (arsenic) and D007 (chromium) flowers.

[WAC 173-303-071\(3\)\(g\)](#), [40 CFR 261.4\(b\)\(9\)](#) and the EPA Memo dated January 6, 2004, 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.

FROM: Paul W. Martin

DATE: 6/27/19

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TWO MINUTE TRAINING – ATTACHMENT

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

WAC 173-303-071 Excluded categories of waste.

(3) Exclusions. The following categories of waste are excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050, 173-303-145, and 173-303-960, and as otherwise specified:

(g) Treated wood waste and wood products including:

(i) Arsenical-treated wood that fails the test for the toxicity characteristic of WAC 173-303-090(8) (dangerous waste numbers D004 through D017 only) or that fails any state criteria, if the waste is generated by persons who utilize the arsenical-treated wood for the materials' intended end use. Intended end use means the wood products must have been used in typical treated wood applications (for example, fence posts, decking, poles, and timbers).

(ii) Wood treated with other preservatives provided such treated wood and wood waste (for example, sawdust and shavings) are, within one hundred eighty days after becoming waste:

(A) Disposed of at a landfill that is permitted in accordance with chapter 173-350 WAC, Solid waste handling standards, or chapter 173-351 WAC, criteria for municipal solid waste landfills, and provided that such wood is neither a listed waste under WAC 173-303-9903 and 173-303-9904 nor a TCLP waste under WAC 173-303-090(8); or

(B) Sent to a facility that will legitimately treat or recycle the treated wood waste, and manage any residue in accordance with that state's dangerous waste regulations; or

(C) Sent off-site to a permitted TSD facility or placed in an on-site facility which is permitted by the department under WAC 173-303-800 through 173-303-845. In addition, creosote-treated wood is excluded when burned for energy recovery in an industrial furnace or boiler that has an order of approval issued pursuant to RCW 70.94.152 by ecology or a local air pollution control authority to burn creosote treated wood.

40 CFR 261.4 Exclusions

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical treated wood and wood products for these materials' intended end use.

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TWO MINUTE TRAINING – ATTACHMENT

SUBJECT: Regulatory Status of Chromated, Copper, Arsenate, (CCA) Wood as Wood Mulch

MEMORANDUM

January 6, 2004

SUBJECT: Wood Mulch Derived from Waste Lumber Preserved with Chromated Copper Arsenate (CCA)

FROM: Robert Springer, Director
Office of Solid Waste
Jim Jones, Director
Office of Pesticide Programs

TO: RCRA Division Directors
Regional Pesticide Program Leads
EPA Regions I to X

The purpose of this memorandum is to clarify whether or not wood mulch produced from CCA-treated wood is exempt from regulation as hazardous waste under the Resource Conservation and Recovery Act (RCRA), specifically under the exemption at 40 CFR 261.4(b)(9). The exemption, which was originally promulgated in 1980,¹ states that the following solid wastes are not hazardous wastes provided they meet specific criteria: “Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials’ intended end use.”²

This exemption applies to CCA-treated lumber where “...the waste is generated by persons who utilize the arsenical-treated wood and wood product for these materials’ intended end use.” Any CCA-treated wood used to produce wood mulch is not the “...materials’ intended end use,” therefore wood mulch produced from CCA-treated wood is not exempt from regulation as hazardous waste under 40 CFR 261.4(b)(9). This is because the intended end uses of the CCA-treated wood products are as building materials, not for manufacturing mulch. For example, CCA-treated wood waste generated during construction using CCA-treated wood, is generated by persons using the wood for its intended end use, and therefore would not be regulated as hazardous waste under this exemption (unless of course this wood waste is then used to produce mulch). In contrast, persons who shred or chip waste CCA-treated lumber into wood mulch for uses such as in landscaping applications, are not using the treated wood for its intended end use. Therefore, the exemption at 261.4(b)(9) does not exempt wood mulch produced from discarded CCA-treated wood.

¹See the November 25, 1980 *Federal Register*, 45 FR 78530, for the rule exempting *arsenical*-treated wood. While today’s clarification focuses on wood treated with CCA (chromated copper arsenate), it applies to any and all arsenic-based wood preservatives.

²To further clarify what is meant by “D004 through D017,” this exemption applies to discarded wood that is a RCRA hazardous waste because it exhibits the Toxicity Characteristic.

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This clarification is consistent with the Consumer Awareness Program (CAP) for consumers and users of CCA-treated lumber, which instructs consumers that they “...should never burn CCA-treated wood or use it as compost or mulch.”³ Also, the Consumer Safety Information Sheet for Inorganic Arsenical Pressure-Treated Wood states:

“Do not use treated wood under circumstances where the preservative may become a component of food or animal feed. Examples of such sites would be *use of mulch from recycled arsenic-treated wood*, cutting boards, counter tops, animal bedding, and structures or containers for storing animal feed or human food.”⁴ [emphasis added].

This memorandum is being issued to ensure clarity and a consistent approach throughout the Regions so that CCA-treated wood is properly used for its intended purposes. It is important that the waste stream from CCA-treated wood is not diverted toward mulch manufacturing.

RO 14689

(TC) for any of fourteen specific chemicals represented by D004 through D017 waste codes. However, although this exemption refers to the D004 through D017 waste codes, arsenic (D004) is the chemical that would most likely cause the wood to fail the TC; data indicate that freshly treated wood, as well as some weathered wood, can exceed the regulatory level for arsenic.

³<http://www.epa.gov/oppad001/reregistration/cca/> (Link does not work.)

⁴http://www.epa.gov/oppad001/reregistration/cca/cca_consumer_safety.htm (Link does not work.)