

<u>SUBJECT</u>		<u>DATE</u>
1448. Definitions of Inactive Portion, Active Portion and Closed Portion of a RCRA TSDF		AUG 12, 2021
1449. Dangerous Waste Designations and Dangerous Waste Code Determinations		AUG 19, 2021
1450. Method Detection Limits and Hazardous Waste Determinations	ENCORE	AUG 26, 2021
1451. Method Detection Limits and Hazardous Waste Determinations II	ENCORE	SEP 2, 2021
1452. Totals Analysis vs. TCLP and Dividing by 20	ENCORE	SEP 9, 2021
1453. Decharacterized RCRA Waste - Manifesting and LDR Reporting	ENCORE	SEP 16, 2021
1454. Decharacterized Hazardous Waste Listed Solely for Non-Toxic Characteristics	ENCORE	SEP 23, 2021
1455. Decharacterized Wastes and the LDR Dilution Prohibition	ENCORE	SEP 30, 2021
1456. The "Derived from Rule", the "Mixtures Rule", and the "Contained-In Policy"	ENCORE	OCT 7, 2021
1457. Hazardous Debris and Options to Exclude as a Dangerous Waste		OCT 14, 2021
1458. Regulatory Status of Characteristic Baghouse Dust Destined for Reclamation		OCT 21, 2021
1459. RCRA Point of Generation and Baghouse Dust Collection Systems		OCT 28, 2021
1460. Pumps Containing Liquid Hazardous Wastes and Liquids in Landfill Prohibition	ENCORE	NOV 4, 2021
1461. Pumps Containing Liquid Hazardous Waste and Land Disposal Restrictions	ENCORE	NOV 11, 2021
1462. Pumps Containing Liquid Hazardous Wastes and RCRA Empty Containers		NOV 18, 2021
1463. Multiple Characteristic Hazardous Waste Codes and Underlying Hazardous Constituents	ENCORE	NOV 23, 2021
1464. LDR Notifications/Certifications and Generator Permitted Treatment, Storage, or Disposal Facility	ENCORE	DEC 2, 2021
1465. Multiple Characteristic and Listed Hazardous Waste Codes and the "in lieu of" LDR Principle	ENCORE	DEC 9, 2021
1466. Universal Wastes - Recycling versus Disposal	ENCORE	DEC 16, 2021
1467. 'Twas the Night Before Christmas – The Twenty-Eighth Edition		DEC 24, 2021
1468. Spent Lead Acid Batteries vs., Universal Wastes	ENCORE	DEC 30, 2021
1469. Hazardous Debris and Radioactively Contaminated Cadmium Batteries	ENCORE	JAN 6, 2022
1470. Hazardous Debris and Radioactively Contaminated Lead-Acid Batteries	ENCORE	JAN 13, 2022
1471. Mercury Wet Cell Batteries - Debris or Not Debris	ENCORE	JAN 20, 2022
1472. Hazardous Debris and Non-Radioactive Lead Acid Batteries	ENCORE	JAN 27, 2022
1473. Hazardous Debris and LDR High/Low Mercury Subcategories	ENCORE	FEB 3, 2022
1474. Central Accumulation Areas and the ≤90-day Time Frame	ENCORE	FEB 10, 2022
1475. Central Accumulation Areas with Satellite Accumulation		FEB 17, 2022
1476. Definition of RCRA Empty Tank	ENCORE	FEB 24, 2022
1477. RCRA Empty Acutely Hazardous Waste Containers	ENCORE	MAR 3, 2022
1478. The RCRA Definition of Acute Hazardous Waste		MAR 10, 2022
1479. Regulatory Status of Liquids and Solids Separated from D001 High TOC Wastes	ENCORE	MAR 17, 2022
1480. Generator Accumulation at a Permitted Storage Facility		MAR 24, 2022
1481. Generator Accumulation and Maximum Inventory of Dangerous Waste Onsite at a RCRA TSD		MAR 31, 2022
1482. LDR Storage Prohibitions and the One-Year Rule	ENCORE	APR 7, 2022
1483. LDR Storage Prohibitions and Treated Hazardous Wastes	ENCORE	APR 14, 2022
1484. LDR Storage Prohibitions and Treated Hazardous Debris or Contaminated Soil	ENCORE	APR 21, 2022
1485. Satellite Accumulation, the Three-Day Rule, and Washington State vs. EPA	ENCORE	APR 28, 2022
1486. Satellite Accumulation Areas and the Three-Day Accumulation Time Limit	ENCORE	MAY 5, 2022
1487. Satellite Accumulation Areas and the Three-Day vs., the 72-Hour Accumulation Time Limit		MAY 12, 2022
1488. RCRA and New Point of Generation	ENCORE	MAY 19, 2022

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## TWO MINUTE TRAINING

**TO:** CENTRAL PLATEAU CLEANUP COMPANY

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

**SUBJECT:** RCRA AND NEW POINT OF GENERATION

**DATE:** MAY 19, 2022

<u>CPCCo Projects</u>	<u>CPCCo Functionals</u>	<u>HMIS</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
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## TWO MINUTE TRAINING

**SUBJECT:** RCRA and New Point of Generation

**Q:** (This will be a “Read it once; read it twice; then read it real slow”, Two Minute Training so hang on!)

A RCRA hazardous waste Treatment, Storage and Disposal (TSD) incinerator treats a D002 characteristic hazardous waste with one underlying hazardous constituent (UHC) for acetone that is above the universal treatment standard (UTS) at [40 CFR 268.48](#). Other heavy metal UHCs are also present in this wastewater wastestream but at levels less than the UTS so do not require treatment. Following incineration, the original wastestream meets the land disposal restrictions (LDR) treatment standards for the D002 characteristic (deactivation) and the acetone UHC (treat wastewater to less than 0.28 mg/l). The treatment residual exhibits no characteristics; however, the heavy metal UHCs that previously did not require treatment have been concentrated by the incineration process and now exceed their respective universal treatment standards. Must the TSD treat the incinerator ash for the UHCs that now exceed UTS?

**A:** The incinerator ash is a new point of generation since a fully treated residual has been generated. No treatment for the UHCs in the incinerator ash is required unless a characteristic is exhibited. Since the ash does not exhibit any characteristics of hazardous waste, the TSD is not required to treat any UHCs, even if the UHCs now exceed UTS. If the incinerator ash did exhibit any characteristics, e.g., a heavy metal such as D008 for lead, then any UHCs reasonably expected to exceed the UTS levels would require treatment. Note that if the incinerator process had not treated the D002 characteristic due to a malfunction, the treatment residual would not be a new point of generation since all required treatment was not completed. The partially treated D002 residual would be considered an intermediate step in the treatment of the D002 since more treatment would be required to address the characteristic and the acetone UHC. Intermediate-step treatment residuals are not newly generated hazardous wastes for LDR purposes.

As semi-clarified in the May 11, 1999, Federal Register ([64 FR 25408](#)) on page 25411, 3<sup>rd</sup> column, 2<sup>nd</sup> paragraph:

*“Under [Sec. 268.2\(i\)](#), the only UHCs that must be treated and that must meet the Universal Treatment Standards (UTS) are those determined to be present above UTS levels in the original waste—either via testing or generator knowledge. Because the treatment process results in non-hazardous residuals, the treatment facility is not responsible for additional testing to determine if any different underlying hazardous constituents are added or created during the treatment process itself. Furthermore, only the original UHCs must meet the UTS.”*

Therefore, once the TSD has treated the original wastestream to meet all LDR treatment standards (D002 and the acetone UHC) the TSD in this scenario is not required to treat any UHCs in the treated residual.

### SUMMARY:

- A treatment residual that meets all the original LDR treatment standards is a new point of generation.
- If the treatment residual at this new point of generation has met all the original LDR treatment standards, and does not exhibit any characteristics, LDR determinations and treatment are not required.
- If the treatment residual at this new point of generation has met all the original LDR treatment standards, and does exhibit any characteristics, LDR determinations and applicable treatment are required.

Excerpts from the May 11, 1999, Federal Register and EPA Waste Analysis Plan guidance 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:** 5/19/2022

**FILE:** 2MT\2022\051922.rtf

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** RCRA and New Point of Generation

**Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes, [EPA 530-R-12-001, April 2015](#)**

LDRs: Underlying Hazardous Constituents

Applicability of UHCs to Treatment Residuals

Generators of characteristic hazardous wastes are required to identify any and all underlying hazardous constituents reasonably expected to be present above their concentration-based levels (see Table in 268.48) at the point of generation. Thus, metal constituents that did not qualify as UHCs in the original waste are concentrated to above UTS levels during treatment, treaters are not expressly required to further treat the residuals such that those metal constituents meet UTS levels. If, however, the residual exhibits a characteristic due to a new property (e.g., concentrated metals now exceed one or more of the constituent-specific Toxicity Characteristic thresholds), residuals exiting the treatment unit would be considered a new point of generation and the full suite of UHCs must be reconsidered and identified, as appropriate. **See 64 FR 25411 (May 11, 1999) for additional clarification.**

**25411 Federal Register / Vol. 64, No. 90 / Tuesday, May 11, 1999 / Rules and Regulations**

The Agency has received several inquiries concerning treating TC metal wastes and the potential for finding underlying hazardous constituents at levels above the UTS in the treatment residuals that were either not present in the waste prior to treatment or may have been present but only at levels below the UTS. This would occur, for example, if the treatment process is such that certain underlying hazardous constituents (UHCs) might be more concentrated in treatment residuals than in the original waste.

Two illustrative scenarios are useful. The first involves a D007 chromium waste that is incinerated. Trace quantities of lead are present in the original waste, but at levels below the UTS (thus, lead is not a UHC under 40 CFR Sec. 268.2(i)). The resulting ash is no longer characteristic for chromium, but lead is now present at levels above the UTS. The second involves a D008 lead wastewater that contains no underlying hazardous constituents as generated, but that is treated with dithiocarbamate, a metal precipitating agent. Dithiocarbamate is also a hazardous constituent that appears on the list of potential UHCs in Sec. 268.48. The dithiocarbamate assists the stabilization of the lead but, after treatment, is present at levels above the UTS in the treatment residuals.

In both of these cases, the treatment residuals (ash and sludge) demonstrate that the original waste is decharacterized. **Under Sec. 268.2(i), the only UHCs that must be treated and that must meet the Universal Treatment Standards (UTS) are those determined to be present above UTS levels in the original waste--either via testing or generator knowledge. Because the treatment process results in non-hazardous residuals, the treatment facility is not responsible for additional testing to determine if any different underlying hazardous constituents are added or created during the treatment process itself. Furthermore, only the original UHCs must meet the UTS.**

However, if in either case the treatment residual is also characteristic by having constituents that are not only above the UTS level but also above the TC level, then the residual is a newly-generated hazardous waste for LDR purposes. This result is consistent with the definition of generator at Sec. 260.10: "Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 \*\*\*" The result is also consistent with the key LDR principle that hazardous wastes must meet LDR treatment standards to minimize threats before the wastes are land disposed. See, e.g., *Chemical Waste Management v. EPA*, 976 F. 2d 2, 16-18 (D.C. Cir. 1992) (treatment must include treatment for both characteristic property and for underlying hazardous constituents). **For these reasons, the Agency regards generation of a new characteristic treatment residual as being a new point of generation for LDR purposes.** This newly-formed hazardous waste would have to be treated to below the characteristic, and any underlying hazardous constituents would have to be treated to below their UTS levels.<sup>1</sup>

\1\ This analysis is consistent with the so-called change of treatability group principle first stated at 55 FR at 22661, col. 2 (June 1, 1990). That principle states that LDR prohibitions remain attached to the initial waste as long as the waste remains within the same treatability group (normally wastewater or nonwastewater). Thus, if a characteristic wastewater is treated and a non-wastewater sludge is generated from the treatment process, the prohibition for the wastewater does not automatically apply to the sludge. Id. The situation discussed in the text above, however, involves the status for this hypothetical sludge if it itself exhibits a characteristic of hazardous waste. EPA views such a characteristic sludge as being newly generated for LDR purposes.

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** RCRA and New Point of Generation

25412 Federal Register / Vol. 64, No. 90 / Tuesday, May 11, 1999 / Rules and Regulations

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Thus, in the first scenario above regarding a decharacterized waste with lead in the ash, if the lead is present in the ash at or above TC levels (i.e., a new D008 waste has been generated), the lead must be treated to UTS levels. Furthermore, the treater has generated the new hazardous waste for LDR purposes and is responsible for a new determination of UHCs that are present and that require treatment to UTS levels. The same is true in the second example if the dithiocarbamate treatment sludge is characteristic.

EPA notes further, however, that in determining whether a treatment process has generated a new hazardous waste for LDR purposes, the Agency looks to the entire treatment process, not to each component part. In general, as explained below, the determination of whether a new hazardous waste is generated--i.e., whether a new point of generation for LDR purposes is created--is made at the completion of the treatment process. Thus:

(i) For residuals that are the end product of a one-step treatment process or the end product of a treatment train, the treater has the obligation to ensure only that the original UHCs meet UTS standards and that the treatment residuals are not themselves characteristic. If a treatment residual in this scenario does not meet the treatment standards for the original characteristic (i.e., when treatment is ineffective or incomplete) and requires further treatment, EPA does not consider the treatment residual to be newly generated for LDR purposes. Such a treatment residual, however, cannot be land disposed until it meets the treatment standard applicable to the original waste. This situation would normally involve re-treating the waste residuals on-site. Any UHCs added or created by the treatment process are not required to be treated because there is no new point of generation for LDR purposes. However, as noted above, if the treatment residuals are themselves characteristic due to a new property (for example, the formerly characteristic chromium D007 waste is now characteristic only for D008 lead), then the treater must make a new determination of the UHCs present--either through knowledge or additional testing. This is the same obligation that attaches to any generator of a hazardous waste.

(ii) For treatment residuals that appear only at intermediate steps of a treatment train, there is no obligation to determine UHCs or to determine whether the residual is itself characteristic. Intermediate-step treatment residuals are not newly generated hazardous wastes for LDR purposes. Thus, even when an intermediate treatment residual is sent off-site for further treatment (such as incinerator ash going offsite for stabilization and landfilling), our current regulations at Sec. 268.7(b)(5) require only that the UHCs identified at the LDR point of generation be identified. There is no such requirement for any new UHCs that may be added or created during the preceding steps of the treatment process.

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