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Version 1

# **Definition of Solid Waste Compendium**



## **Volume I: Sludges**

Hazardous Waste Identification Division  
Office of Solid Waste  
U.S. Environmental Protection Agency



## Navigation Tips

### To improve document navigation:

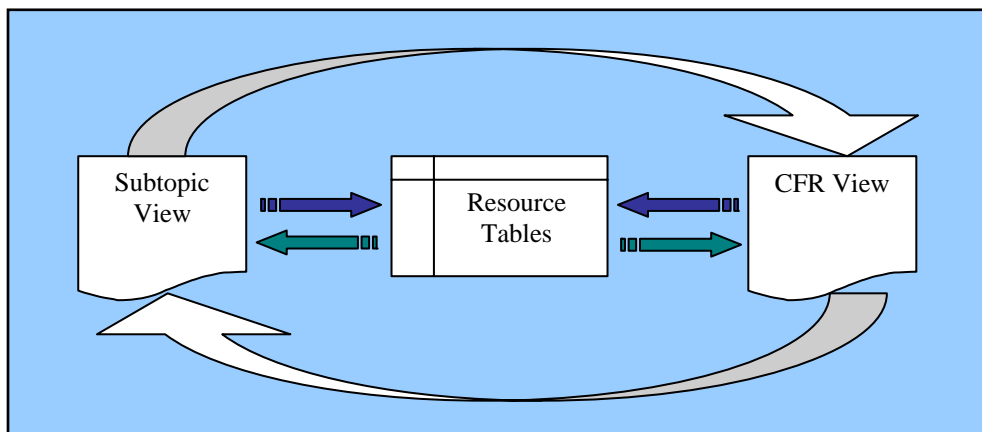
#### *Using Microsoft Word*

1. Use the  (back) and  (forward) buttons to navigate between document locations accessed via hyperlinks. These buttons can be accessed from the Navigation toolbar (View > Toolbars > Navigation). Alternatively, use ALT + Left (back) and ALT + Right (forward).
2. Use the Document Map. To show the Document Map, go to View > Document Map.

#### *Using Adobe Reader (PDF)*

1. Use the  (back) and  (forward) buttons to navigate between document locations accessed via hyperlinks. These buttons are found on the Navigation bar at the bottom of the document window.
2. Use the Bookmarks listed in the Bookmarks tab (located on the left-hand side of the document window).

### Document Layout (arrows represent hyperlinks):



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### *Compendium Volumes*

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N	Legitimate Recycling
O	Recyclable Materials
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## Introduction

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### *About the Compendium*

The Definition of Solid Waste Compendium serves as a user-friendly reference to assist Environmental Protection Agency (EPA) and state staff, industrial facilities generating and managing solid and hazardous wastes, as well as the general public, in locating resources addressing specific regulatory issues within the federal Definition of Solid Waste regulations. Please note that this reference is designed to be web-based; therefore, the usefulness of the document is maximized when it is viewed on a computer that is connected to the internet.

A frequently mentioned comment from stakeholders is the need for EPA to improve the user-friendliness of the existing regulations. Commenters note that the applicable Definition of Solid Waste regulations and relevant guidance materials are difficult to locate and use. As a result, stakeholders have difficulty in understanding the regulations and identifying solid waste. The objective of this document is to address some of the commenters' concerns by consolidating and streamlining the Definition of Solid Waste into a helpful reference tool that features a user-friendly format, including references to EPA FAQs (Frequently Asked Questions), letters, memoranda, and guidance documents that EPA has provided to the public through the years to help stakeholders interpret the Definition of Solid Waste. This document does not change any of the existing solid or hazardous waste requirements.

The resources referenced in the Compendium may include Federal Register (FR) notices, documents from [Resource Conservation and Recovery Act \(RCRA\) Online](#) (e.g., RCRA Hotline Q&A's, letters, and memoranda issued by EPA), and other resources, as well as relevant Code of Federal Regulations (CFR) language. We have attempted to identify the relevant resources for each Compendium volume topic. However, please note that EPA could have inadvertently overlooked a relevant document and did not reference it. Certain available resources, such as superseded RCRA Online documents and items that were judged to be not pertinent, have not been referenced. Most of the referenced resources are not included or reproduced in the Compendium; instead, hyperlinks to the resources are provided. As an exception, we have included a version of relevant sections of the most current CFR language (as of the date on the cover of the Compendium) that we have reformatted to make it easier to read and find citations of interest. In addition, we also provide links to the [Government Printing Office's Electronic Code of Federal Regulations Web site](#) (e-CFR), which is updated almost daily.

Please note that this document is also not a rulemaking in any way. As well, the included reformatted CFR language is not a substitute for the CFR itself or the requirements in the CFR. The Government Printing Office frequently updates the e-CFR

Web site; where appropriate, hyperlinks to the respective CFR section at the e-CFR Web site are provided.

This reference document presents only the federal Definition of Solid Waste. Most states are authorized to manage their own solid and hazardous waste generator regulatory program. Therefore, states may have their own set of regulations that apply in lieu of federal regulations, and while most state solid and hazardous waste regulations are based on the federal requirements, some states have developed regulations more stringent than the federal program. We direct you to the following Web site to determine if the state regulatory program is different from the federal program:  
<http://www.epa.gov/epawaste/wyl/stateprograms.htm>.

The Definition of Solid Waste includes multiple subtopics, and is codified under 40 CFR. To help users of the Compendium more quickly identify the information they need, and to make the Compendium more user-friendly in an electronic environment, the Compendium has been divided into multiple volumes. These volumes are available through EPA's Definition of Solid Waste Web site at [www.epa.gov/epawaste/hazard/dsw/index.htm](http://www.epa.gov/epawaste/hazard/dsw/index.htm). Because regulations are promulgated throughout the year, EPA intends to update the Compendium volumes periodically to remain up-to-date with regulations relating to the Definition of Solid Waste.

### *About the Sludges Volume*

This volume of the Compendium references resources pertaining to sludges, a group of materials that appears as included in the Definition of Solid Waste regulations at 40 CFR 261.2(c), Table 1. The definition of “sludge” appears at 40 CFR 261.10.

This document is organized into three main sections:

- *Subtopic View* – lists subtopics for resources
- *Resources* – lists resources for each subtopic
- *CFR View* – CFR language we've reformatted for easy reading

The *Subtopic View* section lists the subtopics among the resources pertaining to the regulation of sludges under the Definition of Solid Waste regulations. The *Resources* section is comprised of a table, arranged by subtopic, that provides basic details about and a hyperlink to each resource. The *CFR View* section provides reformatted versions of the relevant CFR language. As noted previously, this reproduced language is not a substitute for the CFR itself or the requirements in the CFR. Additionally, the Government Printing Office frequently updates the e-CFR Web site to which the document is linked; where appropriate, hyperlinks to the respective CFR section at the e-CFR Web site are provided. These three main sections are cross-referenced, where each section includes hyperlinks to the other sections. Please see the “Navigation Tips” section for document navigation guidance.

This reference document does not provide guidance on solid waste or hazardous waste regulations beyond issues concerning the regulation of sludges under the Definition of Solid Waste regulations. For more information regarding the various regulations applied to facilities generating or managing hazardous waste, see [Hazardous Waste Generators: A User Friendly Reference Document](#).

The Compendium volumes are also available in Microsoft Word format from EPA upon request. For more information on these versions and any other questions or comments concerning this document, please contact EPA's Office of Solid Waste:

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## Subtopic View

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### Sludges [§§260.10, 261.2(c)]

*Resource Index:*

- [Resources applicable to all subtopics](#)
- Resources specific to subtopic:
  - [Characteristic sludges](#)
  - [Definition of sludge](#)
  - [Listed sludges](#)
  - [Silver-containing sludges](#)
  - [Use constituting disposal](#)

## Resources by Subtopic

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
<b>Resources applicable to all subtopics</b>	1. 50 FR 614 - Amendments to Definition of Solid Waste (Final) [pp. 618, 619, 641]	1/4/1985	Federal Register	Yes	N/A	<a href="#">PDF</a>
	2. 65 FR 12377 - 180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry (Final) [All pages]	3/8/2000	Federal Register	Yes	N/A	<a href="#">PDF</a>
	3. §260.10 - Definition of "sludge".	N/A	Code of Federal Regulations	Yes	N/A	<a href="#">e-CFR</a>
	4. §261.2(c) - Definition of solid waste: Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling.	N/A	Code of Federal Regulations	Yes	N/A	<a href="#">e-CFR</a>

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<b>Characteristic sludges</b>	1. CHARACTERISTIC SLUDGES RECLAIMED OR PROCESSED PRIOR TO USE AS AN INGREDIENT IN FERTILIZER	11/25/1985	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	2. MATERIALS USED IN FERTILIZER PRODUCTION MANAGEMENT	10/11/1991	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	3. REGULATORY STATUS OF SILVER-CONTAINING WASTEWATER TREATMENT SLUDGES WHEN RECYCLED	4/29/1993	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	4. APPLICABILITY OF RCRA SUBTITLE C REGULATIONS TO SILVER RECLAMATION OPERATIONS OF SPENT PHOTOGRAPHIC FIXER SOLUTIONS	2/28/1994	Letter	No	<a href="#">Summary</a>	<a href="#">PDF</a>
	5. INTERPRETATION REGARDING THE REGULATORY STATUS OF SILVER RECOVERY UNITS UNDER RCRA REGULATIONS	10/5/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>

Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
	6. CLARIFICATION OF THE REGULATORY STATUS UNDER RCRA OF SILVER RECOVERY UNITS USED IN PHOTO PROCESSING	8/4/1995	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	7. REGULATORY STATUS OF METAL-BEARING SECONDARY MATERIALS RECLAIMED FOR USE IN COMMERCIAL FERTILIZERS	8/15/1997	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
Return to: <a href="#">Subtopic View</a>   <a href="#">CFR View (CFR text)</a>   <a href="#">Main Index</a>						
<b>Definition of sludge</b>	1. SILVER RECOVERY IN THE PHOTOGRAPHIC INDUSTRY, CHEMICAL RECOVERY CARTRIDGES FOR	1/6/1987	Letter	No	<a href="#">Summary</a>	<a href="#">PDF</a>
	2. SPENT ION EXCHANGE RESINS AND FILTER AS HAZARDOUS WASTE	5/5/1987	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	3. REGULATORY STATUS OF NON-LISTED SLUDGE THAT IS BEING RECYCLED	6/10/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	4. REGULATORY INTERPRETATION FOR ION EXCHANGE RESIN USED FOR WATER REUSE ON ELECTROPLATING WASTEWATERS	7/21/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	5. INTERPRETATION REGARDING THE REGULATORY STATUS OF SILVER RECOVERY UNITS UNDER RCRA REGULATIONS	10/5/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	6. REGULATORY STATUS OF AN AIR POLLUTION CONTROL DUST THAT IS FED TO AN ELECTROLYTIC METALS RECOVERY PROCESS TO RECOVER ZINC METAL	12/20/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	7. IS SCRUBBER WASTE FROM A SCRUBBER IN A CLOSED-LOOP FLUE GAS DESULFURIZATION CONSIDERED A SOLID WASTE?	4/12/1995	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	8. REGULATORY STATUS OF ION EXCHANGE RESIN WASTE	1/21/1997	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	9. REGULATORY STATUS OF SPENT GRANULATED ACTIVATED CARBON AND ION EXCHANGE COLUMNS	3/18/1999	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
Return to: <a href="#">Subtopic View</a>   <a href="#">CFR View (CFR text)</a>   <a href="#">Main Index</a>						

Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
<b>Listed sludges</b>	1. CHARACTERISTIC SLUDGES RECLAIMED OR PROCESSED PRIOR TO USE AS AN INGREDIENT IN FERTILIZER	11/25/1985	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	2. REGULATION OF SLUDGES WHEN RECLAIMED	6/1/1986	Q&A	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	3. SPENT ION EXCHANGE RESINS AND FILTER AS HAZARDOUS WASTE	5/5/1987	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	4. REGULATORY INTERPRETATION FOR ION EXCHANGE RESIN USED FOR WATER REUSE ON ELECTROPLATING WASTEWATERS	7/21/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	5. REGULATORY STATUS OF ION EXCHANGE RESIN WASTE	1/21/1997	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
Return to: <a href="#">Subtopic View</a>   <a href="#">CFR View (CFR text)</a>   <a href="#">Main Index</a>						
<b>Silver-containing sludges</b>	1. REGULATORY STATUS OF SILVER-CONTAINING WASTEWATER TREATMENT SLUDGES WHEN RECYCLED	4/29/1993	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	2. APPLICABILITY OF RCRA SUBTITLE C REGULATIONS TO SILVER RECLAMATION OPERATIONS OF SPENT PHOTOGRAPHIC FIXER SOLUTIONS	2/28/1994	Letter	No	<a href="#">Summary</a>	<a href="#">PDF</a>
	3. INTERPRETATION REGARDING THE REGULATORY STATUS OF SILVER RECOVERY UNITS UNDER RCRA REGULATIONS	10/5/1994	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	4. CLARIFICATION OF THE REGULATORY STATUS UNDER RCRA OF SILVER RECOVERY UNITS USED IN PHOTO PROCESSING	8/4/1995	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
Return to: <a href="#">Subtopic View</a>   <a href="#">CFR View (CFR text)</a>   <a href="#">Main Index</a>						

Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
<b>Use constituting disposal</b>	1. CHARACTERISTIC SLUDGES RECLAIMED OR PROCESSED PRIOR TO USE AS AN INGREDIENT IN FERTILIZER	11/25/1985	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	2. ZINC OXIDE DUST RECLAIMED OR USED AS FERTILIZER	8/12/1987	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	3. MATERIALS USED IN FERTILIZER PRODUCTION MANAGEMENT	10/11/1991	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>
	4. REGULATORY STATUS OF METAL-BEARING SECONDARY MATERIALS RECLAIMED FOR USE IN COMMERCIAL FERTILIZERS	8/15/1997	Letter	Yes	<a href="#">Summary</a>	<a href="#">PDF</a>

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## CFR View Index

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**NOTE: The CFR links in the below index are internal to this document.**

CFR Location	Title/Topic
<a href="#">260.10</a>	Definition of sludge.
<a href="#">261.2</a>	Definition of solid waste.
<a href="#">261.2(c)</a>	Materials are solid wastes if they are <i>recycled</i> .

## CFR View

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**NOTE: The CFR language outline has been formatted**

### §260.10: Definitions.

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When used in parts 260 through 273 of this chapter, the following terms have the meanings given below:

[\*\*\**Preceding section text omitted*\*\*\*]

*Sludge* means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

[\*\*\**Remaining section text omitted*\*\*\*]

### §261.2: Definition of solid waste.

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[\*\*\**Preceding section text omitted*\*\*\*]

(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) *Used in a manner constituting disposal.*

(i) Materials noted with a “\*” in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal;  
or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

**§261.2: Definition of solid waste (cont.).**

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(2) *Burning for energy recovery.*

(i) Materials noted with a “\*” in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed.* Materials noted with a “\*” in column 3 of Table 1 are solid wastes when reclaimed (except as provided under §261.4(a)(17)). Materials noted with a “—” in column 3 of Table 1 are not solid wastes when reclaimed. (4) *Accumulated speculatively.* Materials noted with a “\*” in column 4 of Table 1 are solid wastes when accumulated speculatively.

(4) *Accumulated speculatively.* Materials noted with a “\*” in column 4 of Table 1 are solid wastes when accumulated speculatively.

**§261.2: Definition of solid waste (cont.).**

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Table 1

	<b>Use constituting disposal (§261.2(c)(1))</b>	<b>Energy recovery/ fuel (§261.2(c)(2))</b>	<b>Reclamation (§261.2(c)(3)) (except as provided in 261.4(a)(17) for mineral processing secondary materials)</b>	<b>Speculative accumulation (§261.2(c)(4))</b>
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—
Scrap metal other than excluded scrap metal (see 261.1(c)(9))	(*)	(*)	(*)	(*)

Note: The terms “spent materials,” “sludges,” “by-products,” and “scrap metal” and “processed scrap metal” are defined in §261.1.

[\*\*\*Remaining section text omitted\*\*\*]

**\*\*\*End of Sludges CFR Excerpts\*\*\***

## Glossary of Acronyms

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Acronym	Meaning
CFR	Code of Federal Regulations
e-CFR	electronic Code of Federal Regulations
EPA	Environmental Protection Agency
FR	Federal Register
RCRA	Resource Conservation and Recovery Act