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Version 1

Definition of Solid Waste Compendium



Volume Q: Spent Lead-Acid Batteries

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



Navigation Tips

To improve document navigation:

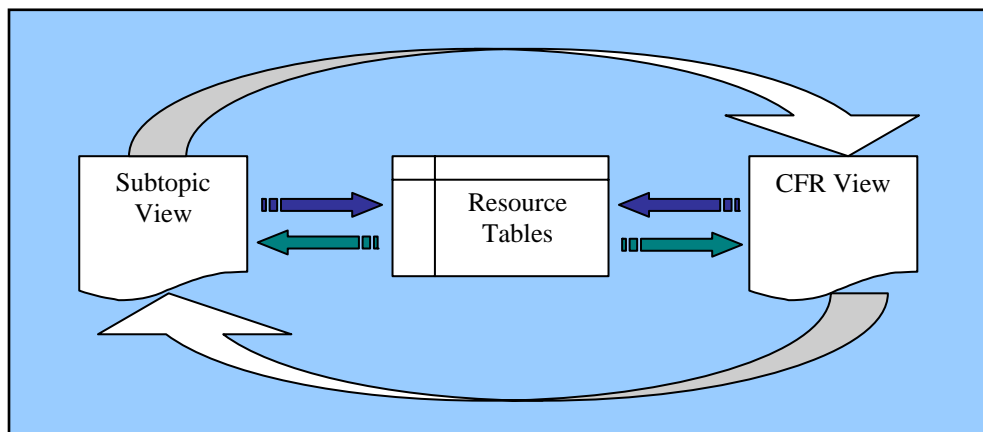
Using Microsoft Word

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).

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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 Register 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 <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 Spent Lead-Acid Batteries Volume

This volume of the Compendium references resources pertaining to the hazardous waste recycling regulations for spent lead-acid batteries. These regulations are found at 40 CFR 266.80 (Spent Lead-Acid Batteries Being Reclaimed) and 273.2 (the alternative regulations under Standards for Universal Waste Management).

This document is organized into three main sections:

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

The *Subtopic View* section lists subtopics among the spent lead-acid batteries resources. 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 relating to the hazardous waste recycling regulations for spent lead-acid batteries. 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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Spent Lead-Acid Batteries [§§261.6(a)(2), 266.80, 273.2]

Resource Index:

- [Resources applicable to all subtopics](#)
- Resources specific to subtopic:
 - [Export](#)
 - [Reclamation](#)
 - [Scrap metal](#)
 - [Speculative accumulation](#)
 - [Spent material](#)
 - [Storage](#)
 - [Transport](#)
 - [Universal waste](#)
 - [Other](#)

Resources by Subtopic

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
Resources applicable to all subtopics	1. 50 FR 614 - Hazardous Waste Management System (Final) [pp. 649]	1/4/1985	Federal Register	Yes	N/A	PDF
	2. 63 FR 71225 - Corrections to the regulations governing management of spent lead-acid batteries that are reclaimed (Correcting amendments) [All pages]	12/24/1998	Federal Register	Yes	N/A	PDF
	3. §261.6(a)(2) - Requirements for recyclable materials	N/A	Code of Federal Regulations	No	N/A	e-CFR
	4. §266.80 - Applicability and requirements	N/A	Code of Federal Regulations	Yes	N/A	e-CFR
	5. §273.2 - Applicability—batteries	N/A	Code of Federal Regulations	Yes	N/A	e-CFR

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Export	1. HAZARDOUS WASTE EXPORT RULE	5/1/1986	Q&A	Yes	Summary	PDF
	2. BATTERY RECYCLING AND EXPORT	2/12/1987	Letter	Yes	Summary	PDF
	3. EXPORTING HAZARDOUS WASTE	8/1/1987	Q&A	Yes	Summary	PDF
	4. EXPORT OF SPENT BATTERIES	9/17/1987	Letter	Yes	Summary	PDF

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
Reclamation	1. REGULATORY STATUS OF STEEL INDUSTRIAL BATTERY CASES SENT OFFSITE FOR RECLAMATION	8/9/1985	Letter	Yes	Summary	PDF
	2. HAZARDOUS WASTE EXPORT RULE	5/1/1986	Q&A	Yes	Summary	PDF
	3. SPENT LEAD-ACID BATTERIES	1/1/1987	Q&A	Yes	Summary	PDF
	4. BATTERY RECYCLING AND EXPORT	2/12/1987	Letter	Yes	Summary	PDF
	5. RECYCLING V. CONTINUED-USE OF LEAD-ACID BATTERIES	6/24/1987	Letter	Yes	Summary	PDF
	6. SECONDARY LEAD SMELTER VARIANCES	8/26/1988	Memo	Yes	Summary	PDF
	7. APPLICABILITY OF PERMITTING TO SPENT LEAD-ACID BATTERY RECYCLING	11/28/1988	Letter	Yes	Summary	PDF
	8. SPENT LEAD-ACID BATTERIES MANAGEMENT	10/19/1989	Letter	Yes	Summary	PDF
	9. MANAGEMENT OF LEAD-ACID BATTERIES THAT ARE RECYCLED	12/23/1993	Letter	Yes	Summary	PDF
	10. SPENT LEAD-ACID BATTERIES AND COUNTING REQUIREMENTS	6/1/1995	Q&A	Yes	Summary	PDF
	11. STATUS OF UNUSED OFF-SPECIFICATION LEAD PLATES USED IN LEAD-ACID BATTERY PRODUCTION	9/14/1995	Letter	Yes	Summary	PDF
	12. REGULATORY STATUS OF SPENT LEAD-ACID BATTERIES SHIPPED TO A SECONDARY LEAD SMELTER FOR RECLAMATION	6/19/1996	Letter	Yes	Summary	PDF
	13. TRANSPORTATION OF LEAD-ACID BATTERY COMPONENTS THAT ARE SHIPPED OFF-SITE FOR RECLAMATION	5/30/1997	Letter	Yes	Summary	PDF

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
Scrap metal	1. REGULATORY STATUS OF STEEL INDUSTRIAL BATTERY CASES SENT OFFSITE FOR RECLAMATION	8/9/1985	Letter	Yes	Summary	PDF
	2. SCRAP METAL REMOVED FROM SPENT ALKALINE BATTERIES THAT ARE RECYCLED	10/20/1986	Letter	No	Summary	PDF
	3. APPLICABILITY OF PERMITTING TO SPENT LEAD-ACID BATTERY RECYCLING	11/28/1988	Letter	Yes	Summary	PDF
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Speculative accumulation	1. SPENT LEAD-ACID BATTERIES MANAGEMENT	10/19/1989	Letter	Yes	Summary	PDF
Return to: Subtopic View CFR View (CFR text) Main Index						
Spent material	1. RECYCLING V. CONTINUED-USE OF LEAD-ACID BATTERIES	6/24/1987	Letter	Yes	Summary	PDF
	2. REGULATORY STATUS OF PLASTIC CHIPS FROM RECLAMATION OF LEAD-ACID BATTERIES	8/4/1993	Memo	Yes	Summary	PDF
	3. CLARIFICATION OF WHEN A SECONDARY MATERIAL MEETS THE DEFINITION OF ""SPENT MATERIAL""	3/24/1994	Memo	No	Summary	PDF
	4. STATUS OF UNUSED OFF-SPECIFICATION LEAD PLATES USED IN LEAD-ACID BATTERY PRODUCTION	9/14/1995	Letter	Yes	Summary	PDF
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Storage	1. LEAD-ACID BATTERY IMPROPER DISPOSAL	7/11/1986	Letter	Yes	Summary	PDF
	2. RECYCLING OF LEAD-ACID BATTERIES	11/17/1989	Letter	No	Summary	PDF
	3. MANAGEMENT OF LEAD-ACID BATTERIES THAT ARE RECYCLED	12/23/1993	Letter	Yes	Summary	PDF
	4. REGULATORY STATUS OF SPENT LEAD-ACID BATTERIES SHIPPED TO A SECONDARY LEAD SMELTER FOR RECLAMATION	6/19/1996	Letter	Yes	Summary	PDF
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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
Transport	1. TRANSPORTATION OF LEAD-ACID BATTERY COMPONENTS THAT ARE SHIPPED OFF-SITE FOR RECLAMATION	5/30/1997	Letter	Yes	Summary	PDF
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Universal waste	1. LEAD-ACID BATTERIES AND UNIVERSAL WASTE	12/1/1995	Q&A	Yes	Summary	PDF
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Other	1. LEAD-ACID BATTERY IMPROPER DISPOSAL	7/11/1986	Letter	Yes	Summary	PDF
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NOTE: The CFR links in the below index are internal to this document.

CFR Location	Title/Topic
261.6	Requirements for recyclable materials
261.6(a)	Hazardous wastes that are recycled
266.80	Applicability and Requirements
266.80(a)	Are spent lead-acid batteries exempt from hazardous waste management requirements?
266.80(b)	If I store spent lead-acid batteries before I reclaim them but not through regeneration, which requirements apply?
273.2	Applicability—batteries
273.2(a)	Batteries covered under 40 CFR part 273
273.2(b)	Batteries not covered under 40 CFR part 273
273.2(c)	Generation of waste batteries

CFR View

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NOTE: The CFR language outline has been formatted

§261.6: Requirements for recyclable materials.

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- (a) (1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as “recyclable materials.”
- (2) The following recyclable materials are not subject to the requirements of this section but are regulated under subparts C through O of part 266 of this chapter and all applicable provisions in parts 270 and 124 of this chapter:
- (i) Recyclable materials used in a manner constituting disposal (40 CFR part 266, subpart C);
 - (ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subpart O of part 264 or 265 of this chapter (40 CFR part 266, subpart H);
 - (iii) Recyclable materials from which precious metals are reclaimed (40 CFR part 266, subpart F);
 - (iv) Spent lead-acid batteries that are being reclaimed (40 CFR part 266, subpart G).
 - (v) U.S. Filter Recovery Services XL waste (40 CFR part 266, subpart O).

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

§266.80: Applicability and Requirements.

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- (a) Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the “Universal Waste” rule in 40 CFR part 273.

§266.80: Applicability and Requirements (cont.).

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If your batteries * * *	And if you * * *	Then you * * *	And you * * *
(1) Will be reclaimed through regeneration (such as by electrolyte replacement)		are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 268, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261 and §262.11 of this chapter.
(2) Will be reclaimed other than through regeneration	generate, collect, and/or transport these batteries	are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261 and §262.11, and applicable provisions under part 268.
(3) Will be reclaimed other than through regeneration	store these batteries but you aren't the reclaimer	are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.
(4) Will be reclaimed other than through regeneration	store these batteries before you reclaim them	must comply with 40 CFR 266.80(b) and as appropriate other regulatory provisions described in 266.80(b)	are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.
(5) Will be reclaimed other than through regeneration	don't store these batteries before you reclaim them	are exempt from 40 CFR parts 262 (except for §262.11), 263, 264, 265, 266, 270, 124 of this chapter, and the notification requirements at section 3010 of RCRA	are subject to 40 CFR parts 261, §262.11, and applicable provisions under part 268.

(b) If I store spent lead-acid batteries before I reclaim them but not through regeneration, which requirements apply? The requirements of paragraph (b) of this section apply to you if you store spent lead-acid batteries before you reclaim them, but you don't reclaim them through regeneration. The requirements are slightly different depending on your RCRA permit status.

(1) For Interim Status Facilities, you must comply with:

- (i) Notification requirements under section 3010 of RCRA.
- (ii) All applicable provisions in subpart A of part 265 of this chapter.

§266.80: Applicability and Requirements (cont.).

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- (iii) All applicable provisions in subpart B of part 265 of this chapter except §265.13 (waste analysis).
- (iv) All applicable provisions in subparts C and D of part 265 of this chapter.
- (v) All applicable provisions in subpart E of part 265 of this chapter except §§265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies).
- (vi) All applicable provisions in subparts F through L of part 265 of this chapter.
- (vii) All applicable provisions in parts 270 and 124 of this chapter.

(2) For Permitted Facilities:

- (i) Notification requirements under section 3010 of RCRA.
- (ii) All applicable provisions in subpart A of part 264 of this chapter.
- (iii) All applicable provisions in subpart B of part 264 of this chapter (but not §264.13 (waste analysis)).
- (iv) All applicable provisions in subparts C and D of part 264 of this chapter.
- (v) All applicable provisions in subpart E of part 264 of this chapter (but not §264.71 or §264.72 (dealing with the use of the manifest and manifest discrepancies)).
- (vi) All applicable provisions in subparts F through L of part 264 of this chapter.
- (vii) All applicable provisions in parts 270 and 124 of this chapter.

§273.2: Applicability—batteries.

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(a) Batteries covered under 40 CFR part 273.

- (1) The requirements of this part apply to persons managing batteries, as described in §273.9, except those listed in paragraph (b) of this section.
- (2) Spent lead-acid batteries which are not managed under 40 CFR part 266, subpart G, are subject to management under this part.

§273.2: Applicability—batteries (cont).

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(b) Batteries not covered under 40 CFR part 273. The requirements of this part do not apply to persons managing the following batteries:

- (1) Spent lead-acid batteries that are managed under 40 CFR part 266, subpart G.
- (2) Batteries, as described in §273.9, that are not yet wastes under part 261 of this chapter, including those that do not meet the criteria for waste generation in paragraph (c) of this section.
- (3) Batteries, as described in §273.9, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in part 261, subpart C of this chapter.

(c) Generation of waste batteries.

- (1) A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).
- (2) An unused battery becomes a waste on the date the handler decides to discard it.

*****End of Spent Lead-Acid Batteries 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