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Version 2.2

Definition of Solid Waste Compendium



Volume E: Burning for Energy Recovery

U.S. Environmental Protection Agency
Office of Resource Conservation and Recovery
Materials Recovery and Waste Management Division



Navigation Tips

To improve document navigation:

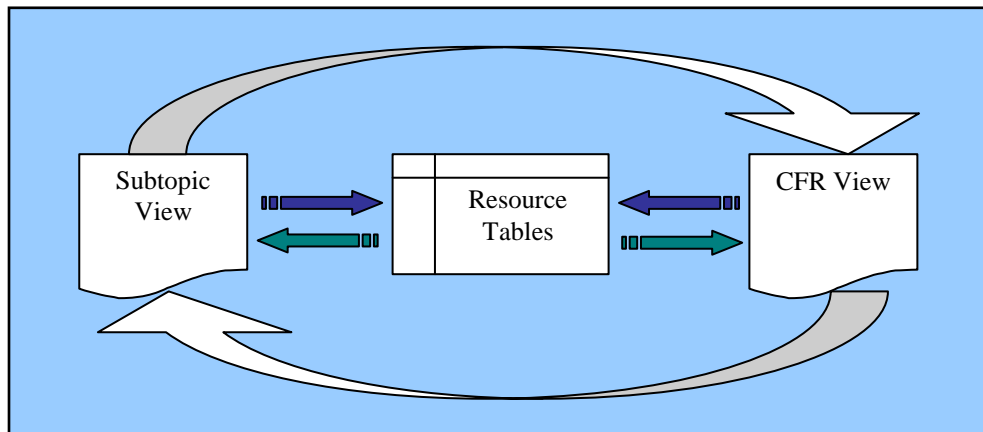
Using Microsoft Word

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 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 <http://www.epa.gov/epawaste/hazard/dsw/compendium.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 Burning for Energy Recovery Volume

This volume of the Compendium references resources pertaining to the burning for energy recovery provision that appears in the Definition of Solid Waste regulations at 40 CFR 261.2(c)(2). This part indicates which materials are solid wastes when burned for energy recovery, used to produce a fuel, or otherwise contained in fuels.

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 burning for energy recovery 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 concerning the burning for energy recovery provision that appears in 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 Resource Conservation and Recovery:

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Subtopic View

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Burning for Energy Recovery [§261.2(c)]

Resource Index:

- [Resources applicable to all subtopics](#)
- Resources specific to subtopic:
 - [CCP](#)
 - [Off-specification CCP](#)
 - [Off-specification fuel](#)
 - [Normal components of fuel](#)
 - [BFE vs. burning for material recovery/use](#)

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. 48 FR 11157 Enforcement Guidance for Legitimate Recycling by Energy Recovery [All pages]	3/16/1983	Federal Register	Yes	N/A	PDF
	2. 50 FR 614 - Amendments to Definition of Solid Waste (Final) [pp. 625-627, 629-632]	1/4/1985	Federal Register	Yes	N/A	PDF
	3. 50 FR 33541 - Amendments to Definition of Solid Waste (Technical Corrections) [All pages]	8/20/1985	Federal Register	Yes	N/A	PDF
	4. 50 FR 49164 – Hazardous Waste Management System; Burning of Waste Fuel and Used Oil in Boilers and Industrial Furnaces (Final) [pp 49166, 49167, 49171-4]	11/29/1985	Federal Register	Yes	N/A	PDF
	5. Guidance Manual on the RCRA Regulation of Recycled Hazardous Wastes [pp. 63-80] ¹	3/1/1986	Guidance	Yes	N/A	PDF
	6. 56 FR 7134 – Burning of Hazardous Waste in Boilers and Industrial Furnaces (Final) [All pages]	2/21/1991	Federal Register	Yes	N/A	PDF pp 7134-7208 PDF pp 7209-7240
	7. §261.2(c)(2) - Definition of solid waste: Materials are solid wastes if they are recycled —or accumulated, stored, or treated before recycling: Burning for energy recovery.	N/A	Code of Federal Regulations	Yes	N/A	e-CFR
	8. SHAM RECYCLING POLICY AS IT PERTAINS TO THE BOILER AND INDUSTRIAL FURNACE RULE	6/7/1994	Memo	Yes	Summary	PDF

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¹ **Note:** This manual was published in 1986 and thus portions may have been superseded by more recent regulatory changes or policy memorandums. See other resources in this [compendium volume](#) for more information regarding specific topics.

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
CCP	1. REGULATORY STATUS OF DISULFIDE OIL WHICH IS BURNED IN A SULFURIC ACID FURNACE	6/2/1993	Memo	Yes	Summary	PDF
	2. REGULATORY STATUS OF HAZARDOUS WASTE FUELS CONTAINING RECOVERED LIGHT HYDROCARBON	11/4/1993	Memo	Yes	Summary	PDF
	3. REGULATORY STATUS OF CRUDE SULFATE TURPENTINE (CST) UNDER RCRA	8/8/2002	Letter	Yes	Summary	PDF
Return to: Subtopic View CFR View (CFR text) Main Index						
Off-specification CCP	1. BURNING CHARACTERISTIC OFF-SPECIFICATION PETROLEUM PRODUCTS FOR ENERGY RECOVERY	12/23/1986	Letter	Yes	Summary	PDF
	2. EXEMPTION FOR COMMERCIAL CHEMICAL PRODUCTS BURNED FOR ENERGY RECOVERY	7/27/1988	Letter	Yes	Summary	PDF
	3. APPLICATION OF THE BIF RULE TO HERITAGE ENVIRONMENTAL SERVICES, INC., LEMONT, ILLINOIS	12/30/1992	Memo	Yes	Summary	PDF
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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
Off-specification fuel	1. NATURAL GAS PIPELINE CONDENSATE AND ENERGY RECOVERY	10/1/1987	Q&A	Yes	Summary	PDF
	2. REGULATORY STATUS OF NATURAL GAS PIPELINE CONDENSATE	4/15/1994	Letter	Yes	Summary	PDF
	3. CLARIFICATION OF HOW RCRA REGULATIONS APPLY TO OFF-SPECIFICATION FUELS THAT ARE BEING BURNED FOR ENERGY RECOVERY	7/11/1994	Letter	Yes	Summary	PDF
	4. REGULATORY STATUS OF RESIDUAL AVIATION FUELS THAT ARE BURNED FOR ENERGY RECOVERY	2/6/1995	Letter	Yes	Summary	PDF
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Normal components of fuel	1. APPLICATION OF THE BIF RULE TO HERITAGE ENVIRONMENTAL SERVICES, INC., LEMONT, ILLINOIS	12/30/1992	Memo	Yes	Summary	PDF
	2. CHARACTERIZATION OF USED TOLUENE WHEN SOLD AS A FUEL ADDITIVE OR FOR OTHER FUEL PURPOSES	8/23/2010	Memo	Yes	Summary	PDF
Return to: Subtopic View CFR View (CFR text) Main Index						
BFE vs. burning for material recovery/use	1. COMBINED OPERATION OF THE RESOURCE RECOVERY KILNS AND CEMENT KILNS AT GIANT CEMENT COMPANY, HARLEYVILLE, SC	8/11/1992	Memo	Yes	Summary	PDF
	2. CLASSIFICATION OF OLIN MERCURY RECOVERY UNIT AS AN INDUSTRIAL FURNACE	12/17/1993	Memo	Yes	Summary	PDF
	3. MINIMUM HEAT CONTENT REQUIREMENTS FOR HAZARDOUS WASTE BURNED IN BIFs	5/20/1994	Memo	Yes	Summary	PDF
	4. CLASSIFICATION OF A MERCURY RECOVERY UNIT	5/26/1994	Memo	Yes	Summary	PDF
	5. EXCLUSION FROM RCRA REGULATION FOR SECONDARY MATERIALS USED OR REUSED DIRECTLY AS INGREDIENTS IN AN INDUSTRIAL PROCESS	7/20/1994	Memo	Yes	Summary	PDF
	6. CLARIFICATION REGARDING SINGLE EMISSION POINT, MULTIPLE-DEVICE COMBUSTION FACILITIES	7/29/1994	Memo	Yes	Summary	PDF

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Subtopic	Resource	Document Date	Type	Topic is Focus?	Link to EPA Summary	Link to Resource
	7. MINIMUM HEAT CONTENT REQUIREMENTS OF WASTE-DERIVED FUEL BLENDED FOR ENERGY RECOVERY IN BIFs	11/4/1994	Memo	Yes	Summary	PDF
	8. REGULATORY INTERPRETATIONS UNDER RCRA CONCERNING CERTAIN FUEL BLENDING SCENARIOS	11/8/1994	Memo	Yes	Summary	PDF

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CFR View

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NOTE: The CFR language outline has been formatted

§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.

(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.

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

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

	Use constituting disposal (§261.2(c)(1))	Energy recovery/ fuel (§261.2(c)(2))	Reclamation (§261.2(c)(3)) (except as provided in 261.4(a)(17) for mineral processing secondary materials)	Speculative accumulation (§261.2(c)(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 Burning for Energy Recovery CFR Excerpts*****

Glossary of Acronyms

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Acronym	Meaning
CFR	Code of Federal Regulations
e-CFR	electronic Code of Federal Regulations
CCP	commercial chemical product
CST	crude sulfate turpentine
EPA	Environmental Protection Agency
FR	Federal Register
RCRA	Resource Conservation and Recovery Act