

US EPA ARCHIVE DOCUMENT

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 264, 265, and 271

[FRL-4506-3]

RIN 2050-AA34

Hazardous Waste Management; Liquids in Landfills

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

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**SUMMARY:** Under authority of the Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), EPA is promulgating this final rule regarding the landfill disposal of containerized liquids mixed with sorbents. This rule satisfies the statutory requirement that EPA issue a rule that prohibits the disposals in hazardous waste landfills of liquids that have been sorbed in materials that biodegrade or that release liquids when compressed as might occur during routine landfill operations. This rule will help assure the stability of materials in hazardous waste landfills.

**EFFECTIVE DATE:** May 18, 1993.

**ADDRESSES:** The public docket for this final rule is docket reference code F-92-CLIF-FFFFF, and the public dockets for the four proposals and supplemental notices are docket reference codes F-86-CLIP-FFFFF, F-87-CLLN-FFFFF, F-91-CLLA-FFFFF, and F-92-CCLA-FFFFF. These dockets are in room M2427, U.S. EPA, 401 M St. SW, Washington, DC 20460, and are open from 9 am to 4 pm, Monday through Friday, excluding holidays. Call 202-260-9327 for an appointment to review docket materials. Up to 100 pages may be copied free of charge from any one regulatory docket. Additional copies are \$0.15 per page.

**FOR FURTHER INFORMATION CONTACT:** The RCRA/Superfund Hotline at 1-800-424-9346 (toll free), or 703-920-9810 in the Washington, DC area. For information on technical aspects of this rule, contact Ken Shuster, Office of Solid Waste (OS-340), U.S. EPA, 401 M St. SW, Washington, DC 20460, 202-260-2214.

>>>> Preamble has not been included in this file. <<<<

For the reasons set forth in the preamble, 40 CFR parts 260, 264, 265, and 271 are amended as follows.

#### PART 260-HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921-6927, 6930, 6934, 6935, 6937, 6938, 6939, and 6974.

2. Section 260.10 is amended by adding the definition of "sorbent" in alphabetical order, to read as follows:

##### § 260.10 Definitions

\* \* \* \* \*

``Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both. Sorb means to either adsorb or absorb, or both.

\* \* \* \* \*

#### PART 264-STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

1. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925.

2. Section 264.13 is amended by adding paragraph (c)(3) to read as follows:

##### § 264.13 General waste analysis.

\* \* \* \* \*

(c) \* \* \*

(3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

\* \* \* \* \*

3. Section 264.314 is amended by redesignating paragraph (e) as (f), revising paragraphs (a)(2), (b), and (d)(1)(ii), and adding new paragraph (e) to read as follows:

§ 264.314 Special requirements for bulk and containerized liquids.

(a) \* \* \*

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with a sorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

\* \* \* \* \*

(d) \* \* \*

(1) \* \* \*

(ii) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

\* \* \* \* \*

(e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in paragraph (e)(1) of this section; materials that pass one of the tests in paragraph (e)(2) of this section; or materials that are determined by EPA to be nonbiodegradable through the part 260 petition process.

(1) Nonbiodegradable sorbents. (i) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

(ii) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents. (i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria.

\* \* \* \* \*

4. Section 264.316 is amended by revising paragraphs (b) and (c) to read as follows:

§ 264.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

\* \* \* \* \*

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with § 264.314(e), to completely sorb all of the liquid contents of the inside containers. The metal outer container must be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with § 264.17(b).

\* \* \* \* \*

#### PART 265-INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

1. The authority citation for Part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, 6935, and 6936.

2. Section 265.13 is amended by adding paragraph (c)(3) to read as follows:

§ 265.13 General waste analysis.

\* \* \* \* \*

(c) \* \* \*

(3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

\* \* \* \* \*

3. Section 265.314 is amended by redesignating paragraph (f) as (g), revising paragraphs (a)(2), (b), and (c)(1)(ii), and adding new paragraph (f) to read as follows:

§ 265.314 Special requirements for bulk and containerized liquids.

(a) \* \* \*

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with a sorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(c) \* \* \*

(1) \* \* \*

(ii) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

\* \* \* \* \*

(f) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in paragraph (f)(1) of this section; materials that pass one of the tests in paragraph (f)(2) of this section; or materials that are determined by EPA to be nonbiodegradable through the Part 260 petition process.

(1) Nonbiodegradable sorbents. (i) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

(ii) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene,

polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents. (i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria.

\* \* \* \* \*

4. Section 265.316 is amended by revising paragraphs (b) and (c) to read as follows:

§ 265.316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

\* \* \* \* \*

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with § 265.314(f), to completely sorb all of the liquid contents of the inside containers. The metal outer container must be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside container's in accordance with § 265.17(b).

\* \* \* \* \*

>>>> § 271 has not been included because it is not required as part of a State's Hazardous Waste Program. <<<<

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