US ERA ARCHIVE DOCUMENT

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 264, 265, and 271

[FRL 5226-9]

Hazardous Waste Management: Liquids in Landfills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule to grant a petition to add a test method.

SUMMARY: On November 18, 1992, the Agency promulgated a final rule on liquids in landfills. That rule satisfied a statutory requirement in the Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments of 1984 regarding the landfill disposal of containerized liquids. Specifically, the statute required EPA to issue a rule that prohibited the disposal in hazardous waste landfills of liquids that have been absorbed in materials that biodegrade. The November 18, 1992 rule includes two tests that could be used to demonstrate non-biodegradability. Today's rulemaking, which is issued in response to a petition, provides increased flexibility to the regulated community by adding another test to demonstrate that a sorbent is non-biodegradable.

In the proposed rules section of today's Federal Register, EPA is proposing to grant the petition to add the additional test for biodegradability and is soliciting public comment on the addition of the third test. If significant adverse comments are received, EPA will withdraw the direct final rule and address the comments received in a subsequent final rule based on the related proposed rule. No additional opportunity for public comment will be provided.

DATES: This final action will become effective on September 11, 1995, unless EPA receives significant adverse comment on the proposal by August 10, 1995. If such comments are received, EPA will withdraw this direct final rule, and publish timely notice in the Federal Register.

ADDRESSES: Materials supporting this rulemaking are contained in EPA RCRA Docket No. F-95-ALLF-FFFFF, Room M2616, U.S. Environmental Protection Agency, 401 M St. SW., Washington, DC 20460. The docket is open from 9 a.m. to 4 p.m., Monday through Friday, except Federal holidays. Call 202-260-9327 for an appointment to examine the docket. Up to 100 pages may be copied free of charge from any one regulatory docket. Additional copies are \$0.15 per page. Those wishing to notify EPA of their intent to submit adverse comments on this action should contact David Eberly, Assistance Branch, Permits and State Programs

Division, Office of Solid Waste (5303W), 401 M St. SW, Washington, DC 20460, (Docket No. F-95-ALLP-FFFFF).

FOR FURTHER INFORMATION CONTACT: The RCRA/Superfund Hotline at 1-800-424-9346 (toll free), or 703-412-9810 in the Washington, DC area. For information on technical aspects of this rule, contact David Eberly, U.S. EPA, Office of Solid Waste (5303W), 401 M St. SW., Washington, DC 20460; 260-4288.

SUPPLEMENTARY INFORMATION:

I. Authority

This rule is being issued under the authority of section 3004(c) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 and the Hazardous and Solid Waste Amendments of 1984; 42 U.S.C. 6924(c).

II. Background

Section 3004(c)(2) of RCRA requires EPA to issue regulations that "prohibit the disposal in landfills of liquids that have been absorbed in materials that biodegrade * * *"

To demonstrate that a sorbent is non-biodegradable, the material must be listed in paragraph (e)(1) of § 264.314 or paragraph (f)(1) of § 265.314 or pass one of two tests cited in paragraph (e)(2) of § 264.314 and paragraph (f)(1) of § 265.314. The two tests are ASTM Method G21-70, a test for resistance of synthetic polymer materials to fungi, and G22-76, a test for determining resistance of plastics to bacteria.

At the time of proposal of the two ASTM tests, the Agency recognized that other biodegradability tests existed, but they were not identified in the proposal or in the comments received on the proposed rule. The Agency, therefore, did not evaluate other tests. Instead, the Agency decided to require that further tests be added under the already established 40 CFR part 260 petition process.

The Agency has received a petition for another test for biodegradability and, based on its review, has decided to include it as one that could be used instead of the ASTM tests. The test is one that has been recently adopted by the Organization for Economic Cooperation and Development (OECD), of which the United States is a member. The test, OECD 301B (Modified Sturm Test), was recommended by an OECD Expert Group on Degradation/ Accumulation to determine the biodegradability of organic chemicals in water. The Agency has concluded that the test is applicable, that it effectively measures the biodegradability of sorbents, and that its use in determining biodegradability of sorbents in a hazardous waste landfill will not have a negative environmental impact.

The United States was represented on the OECD Expert Group on Degradation/Accumulation that evaluated and recommended tests for biodegration in water,

abiotic degradation, bioaccumulation, and behavior of chemicals in soils and sediments. Tests were recommended by the group for each situation.

The OECD adopted three tests for inherent biodegradability (in 1981) and six tests for ready biodegradability (in 1992), all in an aerobic aqueous medium. The guidelines for all nine biodegradability tests are in the docket. The tests for inherent biodegradability require that the material being tested be soluble in water. As the sorbent materials to be tested must clearly not be soluble (otherwise they could not be used as sorbents), those tests are not applicable. In addition, these tests assume ideal conditions for biodegradability in an aerobic environment. Because the conditions to be encountered in a hazardous waste landfill are not ideal for either aerobic or anaerobic biodegradability, the tests for inherent biodegradability are not relevant.

The tests for ready biodegradability, while not simulating the actual conditions to be found in a landfill, do provide an indication of the propensity of the material to biodegrade without enhanced conditions. Of the six tests adopted for ready biodegradability, test 301B is best suited for compounds that are poorly soluble, non-volatile, and absorbing. Sorbents used in spill responses or in sorbing liquid wastes share these properties.

The Agency recognizes that the OECD test 301B is a test for biodegradability in an aerobic environment, as are the two ASTM tests that were promulgated in the November 18, 1992 rule. The Agency also recognizes that the actual environment in which the sorbents will be used, i.e., in a container in a landfill, will be anaerobic. The Agency does not know, however, of any published, widely accepted, tests for the biodegradability of materials in anaerobic conditions that would be practical for the purposes of this rule. The Agency believes, however, that OECD 301B is an acceptable surrogate for determining if a sorbent will biodegrade in containerized liquids in a hazardous waste landfill.

III. State Authority

Under Section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program within the State. Following authorization, EPA retains enforcement authority under Sections 3008, 3013, and 7003 of RCRA, although authorized States have primary enforcement responsibility. The standards and requirements for authorization are found in 40 CFR Part 271.

Today's amendment to the provisions of the November 18, 1992 liquids in landfills rule is being promulgated under authority that was added to RCRA by the Hazardous and Solid Waste Amendments (HSWA) of 1984. Under RCRA Section 3006(g), new requirements imposed by HSWA take effect in authorized States at the same time that they take effect in non-authorized States. Today's final rule for containerized liquids in landfills is issued under RCRA Section 3004(c), which was added by HSWA. These HSWA-based requirements are being added to Table 1 in 40 CFR 271.1(j), which identifies the Federal program requirements that are promulgated pursuant to HSWA.

Today's final rule adds a third test to the two already allowed under existing Federal regulations that were promulgated on November 18, 1992, and therefore does not qualify as a "more stringent" requirement. Instead, today's rule in effect makes a technical amendment to the definition of "biodegradability" that does not affect the current regulations' stringency. Authorized States are only required to modify their programs when EPA promulgates Federal regulations that are more stringent or broader in scope than the existing Federal regulations. Therefore, States that are authorized for the November 18, 1992 rule are not required to modify their programs to adopt today's rule. However, EPA strongly urges States to do so. EPA will implement the provisions of today's rule in other States that have not been authorized for the liquids in landfills requirements in RCRA Section 3004(c)(2) pursuant to RCRA Section 3006(g) until they adopt and receive authorization to implement the November 18, 1992 rule. EPA's authorization guidance to States will link the November 18, 1992 rule and today's final amendments.

Given the minor scope of today's amendment, those States that are authorized for the November 18, 1992 rule may submit an abbreviated authorization revision application to the Region for today's amendment. This application should consist of a letter from the State to the appropriate Regional office, certifying that it has adopted provisions equivalent to and no less stringent than today's final rule (see the December 19, 1994, memorandum from Michael Shapiro, Director of the Office of Solid Waste, to the EPA Regional Division Directors that is in the docket for today's rule). The State should also submit a copy of its final rule or other authorizing authority. A revised Program Description, Memorandum of Agreement, and Attorney General's statement is not necessary (see 40 CFR 271.21(b)(1)). EPA expects that this simplified process will expedite the review of the authorization submittal for this rule.

Finally, States authorized for the containerized liquids in landfills requirements may accept results of the OECD test promulgated in today's rule, consistent with State law, as evidence of non-biodegradability, pending EPA review of a State program revision. States whose programs accept the OECD test would be no less stringent than the Federal program and would therefore be consistent with RCRA Section 3004(c)(2).

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

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 264.314 is amended by removing the period at the end of paragraph (e)(2)(ii) and adding "; or" and by adding paragraph (e)(2)(iii) to read as follows:

§ 264.314 Special requirements for bulk and containerized liquids.

* * * * * *

- (e) * * *
- (2) * * *
- (iii) The sorbent material is determined to be non-biodegradable under OECD test 301B: $[CO_2]$ Evolution (Modified Sturm Test)].

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, unless otherwise noted.

- 2. Section 265.314 is amended by removing the period at the end of paragraph (f)(2)(ii) and adding "; or" and by adding paragraph (f)(2)(iii) to read as follows:
- § 265.314 Special requirements for bulk and containerized liquids.
 - (f) * * *
 - (2) * * *
- (iii) The sorbent material is determined to be non-biodegradable under OECD test 301B: $[CO_2]$ Evolution (Modified Sturm Test)].

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

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