Determination of When Contamination is Caused by a Listed Hazardous Waste

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Part II

Environmental Protection Agency

40 CFR Parts 148, 261, 266, 268, and 271
Land Disposal Restrictions Phase IV: Final Rule Promulgating Treatment Standards for Metal Wastes and Mineral Processing Wastes; Mineral Processing Secondary Materials and Bevill Exclusion Issues; Treatment Standards for Hazardous Soils, and Exclusion of Recycled Wood Preserving Wastewaters; Final Rule

no hazardous waste to which a land disposal prohibition could attach (principle (2)).

2. Generator B is excavating soil contaminated by leaks from a closing hazardous waste surface impoundment. The surface impoundment received listed hazardous wastes K062 (spent pickle liquor) and characteristic hazardous waste D018 (wastes that fail the TCLP test for benzene). The surface impoundment stopped receiving K062 waste in 1987 and D018 waste in 1993. The soil does not exhibit a characteristic of hazardous waste and has been determined by an authorized state not to contain listed hazardous waste. The soil is not prohibited from land disposal. This is because, for LDR purposes, the point of generation is when the soil is first excavated from the land (principle (1)). Since no prohibited hazardous waste existed before that time (i.e., the contaminating wastes were not prohibited) and the soil does not contain listed hazardous waste or exhibit a characteristic of hazardous waste at its point of generation, there is no hazardous waste to which a land disposal prohibition could attach (principle (2)).

3. Generator C is excavating soil contaminated with listed hazardous waste F024. The F024 waste was land disposed after 1991, after it was prohibited from land disposal, and was not first treated to meet applicable land disposal treatment standards (i.e., it was illegally land disposed or accidentally spilled). Since the contaminating waste was prohibited from land disposal and treatment standards were not achieved prior to land disposal, the LDR prohibition continues to apply to any soil contaminated by the waste (principle (3)) regardless of whether the soil "contains" hazardous waste when generated. The soil is prohibited from land disposal and, before land disposal, must be treated to meet applicable technology-based treatment standards or until a site-specific, risk-based minimize threat determination is made through the variance process.

4. Generator D is excavating soil contaminated by an accidental spill of benzyl chloride, which, when discarded, is listed hazardous waste P028 and is prohibited from land disposal. The accidental spill occurred yesterday. The contaminating waste was prohibited from land disposal and, since the treatment standards were not achieved prior to the accidental spill, the prohibition continues to apply to any soil contaminated by the waste (principle (3)). Thus, the soil is prohibited from land disposal and, before land disposal, must be treated to meet applicable technology-based treatment standards or until a site-specific, risk-based minimize threat determination is made through the variance process.

5. Generator E is excavating soil contaminated by listed hazardous waste F004 (generally, spent non-halogenated solvents). The F004 waste was land disposed in 1984, prior to the effective date of an applicable land disposal prohibition; however, on generation the soil contains high concentrations of cresols constituents, so that an authorized state determines it "contains" hazardous waste. The soil is prohibited from land disposal. Although the contaminating waste was not prohibited from land disposal, since the soil contained hazardous waste at the point of generation (and the waste had since become prohibited from land disposal), the land disposal prohibition attaches to the contaminated soil and, before land disposal, the soil must be treated to meet applicable technology-based treatment standards or until a site-specific, risk-based minimize threat determination is made through the variance process (principles (1), (2), and (3)).

EPA acknowledges that the reading of LDR applicability to contaminated soil discussed above creates potential administrative difficulties, since, in many cases, a factual determination will be required as to when hazardous wastes were land disposed in order to determine whether they were prohibited at that time and whether, therefore, the prohibition continues to apply to contaminated soil. The Agency expects that these difficulties will be minimal because, in most cases, contamination will be caused by hazardous wastes placed before the effective date of applicable land disposal prohibitions since land disposal after prohibition would be illegal. The exception is accidental spills of hazardous waste, which the Agency believes are (1) rare, and (2) known, so determining dates of land disposal should not be problematic. This issue was discussed in detail in the HWIR-Media proposal. 61 FR 18805 (April 26, 1996).

As discussed in the April 29, 1996 proposal, the Agency continues to believe that, if information is not available or inconclusive, it is generally reasonable to assume that contaminated soils do not contain untreated hazardous wastes placed after the effective dates of applicable land disposal prohibitions. This is because placement of untreated hazardous waste after applicable LDR effective dates would be a violation of RCRA, subject to significant fines and penalties including criminal sanctions. 61 FR at 18805 (April 29, 1996). Of course, program implementors and facility owners/operators cannot make the determination that information on the types of waste contamination or dates of waste placement is unavailable or inconclusive without first making a good faith effort to uncover such information. By using available site- and waste-specific information such as manifests, LDR records required under 40 CFR 268.7, vouchers, bills of lading, sales and inventory records, storage records, sampling and analysis reports, accident reports, site investigation reports, spill reports, inspection reports and logs, EPA believes that program implementors and facility owners/operators will typically be able to make informed decisions about the types of waste contamination and dates of waste placement. Most commenters supported this approach.

EPA notes that it is not critical for a decision about whether contaminated soil contains listed hazardous waste or exhibits a characteristic of hazardous waste to be made without removing any of the soil (other than the sample volume) from the land. In an area of generally dispersed soil contamination, soil may be consolidated or managed within the area of contamination to facilitate sampling, for example, to ensure that soil samples are representative or to separate soil from non-soil materials. However, care should be taken not to remove hazardous contaminated soils from separate areas of contamination at a facility and place such hazardous contaminated soil into a land disposal unit unless, of course, the soil meets applicable LDR treatment standards. The area of contamination policy is discussed later in this section of today's preamble.

A few commenters expressed concern or confusion over the application of LDRs to soil contaminated by accidental spills of hazardous wastes. The Agency clarifies that accidental spills of hazardous wastes (or products or raw materials) are not considered placement of hazardous waste into a land disposal unit since, in the case of a spill, prohibited waste is not being placed in one of the identified units named in RCRA Section 3004(m).[45] See, 45 FR 76626 (Nov. 19, 1980), issuing clarifying regulations at 40 CFR 264.10(g) to provide that hazardous waste treatment

[45] Although, if such a spill were not cleaned up in a timely way, EPA or an authorized state could determine that the contaminated area should be considered a land disposal unit for purposes of requiring cleanup under RCRA Subtitle C. 55 FR at 20809 (July 27, 1990).

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Environmental Protection Agency

40 CFR Part 260, et al.
Requirements for Management of Hazardous Contaminated Media; Proposed Rule

that it may be appropriate to allow States not authorized for this Part to simply approve another authorized States' decision that the media are not hazardous. The Agency requests comments on these issues.

C. Treatment Requirements

1. Overview of the Land Disposal Restrictions

The Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA), enacted on November 8, 1984, largely prohibit land disposal of hazardous wastes.[15] Once a hazardous waste is prohibited from land disposal, the statute provides only two options: comply with a specified treatment standard prior to land disposal, or dispose of the waste in a unit that has been found to satisfy the statutory no migration test (referred to as a "no migration" unit) (RCRA section 3004(m)). Storage of waste prohibited from land disposal is also prohibited, unless the storage is solely for the purpose of accumulating the quantities of hazardous waste that are necessary to facilitate proper recovery, treatment, or disposal (RCRA section 3004(j)). For purposes of the land disposal restrictions, land disposal includes any placement of hazardous waste into a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave (hereafter referred to as "placement") (RCRA section 3004(k)).

Not all management of hazardous waste constitutes placement for purposes of the LDRs. EPA has interpreted "placement" to include putting hazardous waste into a land-based, moving hazardous waste from one land-based unit to another, and removing hazardous waste from the land, managing it in a separate unit, and re-placing it in the same (or a different) land-based. Placement does not occur when waste is consolidated within a land-based unit, when it is treated *in situ*, or when it is left in place (e.g., capped). (See 55 FR 8666, 8758–8760, (March 8, 1990) and "Determining When Land Disposal Restrictions (LDRs) Are Applicable to CERCLA Response Actions," EPA, OSWER Directive 9347.3–05FS, (July 1989)).

Congress directed EPA to establish treatment standards for all hazardous wastes restricted from land disposal at the same time as the land disposal prohibitions take effect. According to the statute, treatment standards established by EPA must substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short- and long-term threats to human health and the environment are minimized (RCRA section 3004(m)(1)). In *Hazardous Waste Treatment Council* v. *EPA*, 886 F.2d 355 (D.C. Dir. 1989), Cert. Denied 111 S.Ct 139 (1990), the court held that section 3004(m) allows both technology- and risk-based treatment standards, provided that technology-based standards are not established "beyond the point at which there is not a 'threat' to human health or the environment." *id.* at 362 (i.e., beyond the point at which threats to human health and the environment are minimized) (59 FR 47980, 47986, September 19, 1994). Hazardous wastes that have been treated to meet the applicable treatment standard may be land disposed in land disposal facilities that meet the requirements of RCRA Subtitle C (RCRA section 3004(m)(2)).

Congress established a schedule for promulgation of land disposal restrictions and treatment standards for all hazardous wastes listed and identified as of November 8, 1984 (the effective date of the HSWA amendments) so that treatment standards would be in effect, and land disposal of all hazardous waste that did not comply with the standards would be prohibited, by May 8, 1990 (RCRA section 3004(g)). For some classes of hazardous wastes, Congress established separate schedules: for certain hazardous wastes identified by the State of California ("California List"), Congress directed EPA to establish treatment standards and prohibit land disposal by July 8, 1987; for hazardous wastes containing solvents and dioxins, Congress directed the Agency to establish treatment standards and prohibit land disposal by November 8, 1986. (RCRA sections 3004(d) and (e)). For wastes listed or identified as hazardous after the HSWA amendments (referred to as "newly identified wastes"), EPA must establish treatment standards and land disposal prohibitions within six months of the effective date of the listing or identification (RCRA section 3004(g)(4)). Under current regulations, environmental media containing hazardous waste are prohibited from land disposal unless they are treated to meet the treatment standards promulgated for the original hazardous waste in question (i.e., the same treatment standard the contaminating hazardous waste would have to meet if it were newly generated). (See 58 FR 48092, 48123, (September 14, 1993)).

The land disposal restrictions generally attach to hazardous wastes, or environmental media containing hazardous wastes, when they are first generated. Once these restrictions attach, the standards promulgated pursuant to section 3004(m) must be met before the wastes (or environmental media containing the wastes) can be placed into any land disposal unit other than a no migration unit. In cases involving characteristic wastes, the D.C. Circuit held that even elimination of the property that caused EPA to identify wastes as hazardous in the first instance (e.g., treating characteristic wastes so they no longer exhibit a hazardous characteristic) does not automatically eliminate the duty to achieve compliance with the land disposal treatment standards. (*Chemical Waste Management* v. *U.S. EPA*, 976 F.2d 2,22 (D.C. Dir. 1992), *cert. denied*, 113 S.Ct 1961 (1993).) The Agency has examined the logic of the *Chemical Waste* decision and concluded that the same logic could arguably be applied in the remediation context; i.e., a determination that environmental media once subject to LDR standards no longer contain hazardous wastes may not automatically eliminate LDR requirements. While the *Chemical Waste* court did not specifically address the remediation context, the Agency believes it may be prudent to follow the logic the court applied to characteristic wastes, and has developed today's proposal accordingly.

It is important to note that the land disposal restrictions apply only to hazardous (or, in some cases, formerly hazardous) wastes and only to placement of hazardous wastes after the effective date of the applicable land disposal prohibition—generally May 8, 1990 for wastes listed or identified at the time of the 1984 amendments, or six months after the effective date of the listing or identification for newly identified wastes.[16] In other words, the duty to comply with LDRs has already attached to hazardous wastes land disposed ("placed") after the applicable effective dates, but not to hazardous wastes disposed prior to the applicable effective dates. Accordingly, hazardous

[15] The LDR requirements are not cleanup requirements; LDR treatment standards do not trigger removal, exhumation, or other management of contaminated environmental media; however, other applicable requirements, such as State or Federal cleanup requirements, could trigger such actions which, in turn, could trigger LDR requirements.

[16] A detailed listing of when the land disposal prohibitions took effect for individual hazardous wastes can be found in 40 CFR Part 268, Appendix VII.

wastes disposed prior to the effective date of the applicable prohibition only become subject to the LDRs if they are removed from the land and placed into a land disposal unit after the effective date of the applicable prohibition. (See 53 FR 31138, 31148, (August 17, 1988) and *Chemical Waste Management* v. *US EPA*, 86 9 F.2d 1526, 1536 (D.C. Cir. 1989)), "treatment or disposal of [hazardous waste] will be subject to the [LDR] regulation only if that treatment or disposal occurs after the promulgation of applicable treatment standards.") Similarly, environmental media contaminated by hazardous wastes placed before the effective dates of the applicable land disposal restrictions does not become subject to the LDRs unless they are removed from the land and placed into a land disposal unit after the effective dates of the applicable restrictions.

The land disposal restrictions do not attach to environmental media contaminated by hazardous wastes when the wastes were placed before the effective dates of the applicable land disposal prohibitions. If these media are determined not to contain hazardous wastes before they are removed from the land, then they can be managed as non-hazardous contaminated media and they're not subject to land disposal restrictions. For example, soil contaminated by acetone land disposed ("placed") in 1986 (prior to the effective date of the land disposal prohibition for acetone) and, while still in the land, determined not to contain hazardous waste, is not subject to the land disposal restrictions.[17] This is consistent with the Agency's approach in the HWIR-waste rule, where it indicates that LDRs do not attach to wastes that are not hazardous at the time they are first generated (60 FR 66344, December 21, 1995).

Since application of the land disposal restrictions is limited, in order to determine if a given environmental medium must comply with LDRs one must know the origin of the material contaminating the medium (i.e., hazardous waste or not hazardous waste), the date(s) the material was placed (i.e., before or after the effective date of the applicable land disposal prohibition), and whether or not the medium still contains hazardous waste (i.e., contained-in decision or not).

Facility owner/operators should make a good faith effort to determine whether media were contaminated by hazardous wastes and ascertain the dates of placement. The Agency believes that by using available site- and waste-specific information such as manifests, vouchers, bills of lading, sales and inventory records, storage records, sampling and analysis reports, accident reports, site investigation reports, spill reports, inspection reports and logs, and enforcement orders and permits, facility owner/operators would typically be able to make these determinations. However, as discussed earlier in the preamble of today's proposal, if information is not available or inconclusive, facility owner/operators may generally assume that the material contaminating the media were not hazardous wastes. Similarly, if environmental media were determined to be contaminated by hazardous waste, but if information on the dates of placement is unavailable or inconclusive, facility owner/operators may, in most cases assume the wastes were placed before the effective date.

The Agency believes that, in general, it is reasonable to assume that environmental media do not contain hazardous wastes placed after the effective dates of the applicable land disposal prohibitions when information on the dates of placement is unavailable or inconclusive, in part, because current regulations, in effect since the early 1980's, require generators of hazardous waste to keep detailed records of the amounts of hazardous waste they generate. These records document whether the waste meets land disposal treatment standards and list the dates and locations of the waste's ultimate disposition. With these records, the Agency should be able to determine if environmental media were contaminated by hazardous wastes and if they would be subject to the land disposal restrictions.

In addition, EPA believes that the majority of environmental media contaminated by hazardous wastes were contaminated prior to the effective dates of the applicable land disposal restrictions. Generally, the contamination of environmental media by hazardous waste after the effective date of the applicable land disposal restriction would involve a violation of the LDRs, subject to substantial fines and penalties, including criminal sanctions. The common exception would be one-time spills of hazardous waste or hazardous materials. In these cases, the Agency believes that, typically, independent reporting and record keeping requirements (e.g., CERCLA sections 102 and 103 reporting requirements or state spill reporting requirements) coupled with ordinary "good housekeeping" procedures, result in records that will allow the Agency to determine the nature of the spilled material, and the date (or a close approximation of the date) of the spill. The Agency requests comments on this approach and on any other assumptions, records, or standards of evaluation that would ensure that facility owner/operators would identify any contaminated media subject to land disposal restrictions properly and completely.

Information on contained-in decisions should be immediately available since, generally, these determinations are made by a regulatory agency on a site-specific basis and careful records are kept.

2. Treatment Requirements—§ 269.30

a. Approach to treatment requirements and recommendations of the FACA Committee. RCRA section 3004(m) requires that treatment standards for wastes restricted from land disposal, "* * * specify those levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized." A recurring debate through EPA's development of the land disposal restriction program has been whether treatment standards should be technology-based (i.e., based on performance of a treatment technology) or risk-based (i.e., based on assessment of risks to human health and the environment that are posed by the wastes). The Agency believes that both approaches are allowed. It has long been recognized that Congress did not directly address the questions of how to set treatment standards in the language of section 3004(m).[18] In addition, Congress did not specifically address whether the LDR treatment standards for newly generated wastes and remediation wastes must be identical; the structure of RCRA's LDR provisions suggests that Congress believed that remediation waste may merit special consideration. (See, RCRA sections 3004(d)(3) and 3004(e)(3), which

[17] Similarly, soil contaminated by acetone placed in a solid waste management unit in 1986, but leaked into the soil at some point after 1986, is not subject to the land disposal restrictions provided that, while the soil is still in the land, the Director determines it does not contain hazardous wastes. LDRs would not attach because, in this case, it is the initial placement of hazardous waste that determines whether there is a duty to comply with LDRs.

[18] See, e.g., 51 FR 40572, 40578 (November 7, 1986); *Hazardous Waste Treatment Council v. US EPA*, 886 F.2d 355, 361–3 D.C. Cir. 1989); 55 FR 6640, 6641 (February 26, 1990). The legislative history of section 3004(m) is likewise inconclusive. See discussion of the legislative history at 55 FR 6640, 6641–6642 (February 26, 1990)"[a]t a minimum, the [legislative history shows] that Congress did not provide clear guidance on the meaning of 'minimize threats'."

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Part V

Environmental Protection Agency

40 CFR Part 300

National Oil and Hazardous Substances Pollution Contingency Plan; Proposed Rule

would need to comply with the applicable closure requirements for those units in completing the remedial action. Second, if the lead agency determines that RCRA listed or characteristic hazardous waste is present at the site (even if the waste was disposed before the effective date of the requirement) and the proposed CERCLA action involves treatment, storage, or disposal as defined under RCRA, then RCRA requirements related to those actions would be applicable.

These two scenarios are contingent upon determinations that RCRA Subtitle C hazardous waste is present and on the identification of the period of waste management. To determine whether a waste is a listed waste under RCRA, it is often necessary to know the source. However, at many CERCLA sites no information exists on the source of the wastes nor are references available citing the date of disposal. The lead agency should use available site information, manifests, storage records, and vouchers in an effort to ascertain the source of these contaminants. When this documentation is not available, the lead agency may assume that the wastes are not listed RCRA hazardous wastes, unless further analysis or information becomes available which allows the lead agency to determine that the wastes are listed RCRA hazardous wastes. If the lead agency assumes the wastes are not listed RCRA hazardous wastes and it is determined that the wastes are not characteristic wastes under RCRA (see discussion below, 17.i.) RCRA requirements would not be applicable to CERCLA actions, but may be relevant and appropriate if the CERCLA action involves treatment, storage or disposal and/or if the wastes are similar or identical to RCRA hazardous waste.

Under certain circumstances, although no historical information exists about the waste and when it was treated, stored, or disposed, it may be possible to identify the wastes as RCRA characteristic wastes. With respect to hazardous characteristics, (ignitability, corrosivity, reactivity, or EP toxicity), it is the responsibility of the generator (in this case, the lead agency or PRP conducting the action) to determine if the wastes exhibit any of these characteristics (defined in 40 CFR 261.21 through 24). The lead agency must use best professional judgment to determine, on a site-specific basis, if testing for hazardous characteristics is necessary. Testing is required unless it can be determined, by "applying knowledge of the hazard characteristic in light of the materials or process used," that the waste does not have hazardous characteristics (40 CFR 262.11(c)).

In determining whether to test for the toxicity characteristic using the Extraction Procedure (EP) Toxicity Test, it may be possible to assume that certain low concentrations of waste are not toxic. For example, if the total waste concentration is 20 times or less the EP Toxicity concentration, the waste cannot be characteristic hazardous waste. In such a case RCRA requirements would not be applicable and would not likely be relevant or appropriate unless the waste also contained other RCRA hazardous wastes and the CERCLA action involved treatment, storage, or disposal.

If the wastes exhibit hazardous characteristics, RCRA requirements are potentially applicable if the wastes also were either treated, stored, or disposed after the effective date of the applicable RCRA requirement or if the CERCLA actions will involve treatment, storage, or disposal.

ii. *Actions constituting treatment, storage, or disposal.* Many CERCLA actions occur in areas of contamination that contain waste treated, disposed of, or stored prior to November 19, 1980. If left untouched, wastes in such areas are not currently regulated under Subtitle C of RCRA. (Solid waste management units at RCRA facilities are regulated by the 3004(u) corrective action requirements.) However, certain physical movement, alteration, or disturbance of RCRA hazardous waste associated with a remedial action may meet the RCRA definition of treatment, storage, or disposal. For instance, treatment has occurred when the CERCLA remedial action uses "any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, dispose of; or amenable for recovery, amenable for storage, or reduced in volume." 40 CFR 260.10.

Similarly, storage occurs when a CERCLA remedial action involves the "holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere." 40 CFR 260.10.

Land disposal occurs when RCRA hazardous waste is placed into a land disposal unit, including a "landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave." RCRA section 3004(k).

Movement of hazardous waste entirely within a unit does not constitute "land disposal" under Subtitle C of RCRA. However, movement of hazardous waste into a unit (i.e., across the boundary of a unit) does constitute "land disposal."

In many cases CERCLA sites contain areas of contamination (with differing levels of concentration, including hot spots, of hazardous substances, pollutants, or contaminants) that may be characterized as a unit, usually a landfill, under RCRA. In such cases where RCRA hazardous waste is moved into the area of contamination, RCRA disposal requirements are applicable to the disturbed waste and certain land disposal requirements (such as for closure) may be applicable to the area where the waste is received.

Therefore, the following activities constitute land disposal under RCRA Subtitle C where the waste involved is RCRA hazardous waste:

a. Wastes from different units are consolidated into one unit;

b. Waste is removed and treated outside a unit and redeposited into the same or another unit; or

c. Waste is picked up from the unit and treated within the area of contamination in an incinerator, surface impoundment, or tank and then redeposited into the unit (does not include in-situ treatment).

In contrast, an example of an activity that does not constitute "land disposal" is the mere consolidation of RCRA hazardous wastes within a unit. Similarly, the covering and sealing off of hazardous waste, called "capping with waste in place," is also not considered "land disposal" and RCRA Subtitle C requirements would not be applicable. If some of the waste at a site is moved into another unit, but other waste is left behind in the original unit (the unit in which such waste was found), "land disposal" applies only with regard to the waste that is moved into another unit. Under these examples, however, certain RCRA land disposal requirements might nevertheless be relevant and appropriate to such waste. (See ARARs preamble sections below, 16.iii. and 17.)

iii. *Hypothetical examples of compliance with RCRA: land disposal restrictions.* Land disposal restrictions under RCRA sections 3004 (d) through (k) are triggered whenever there is placement of RCRA hazardous wastes subject to land disposal restrictions ("banned waste") into a land-based unit. Such land disposal does not occur when

wastes disposed prior to the effective date of the applicable prohibition only become subject to the LDRs if they are removed from the land and placed into a land disposal unit after the effective date of the applicable prohibition. (See 53 FR 31138, 31148, (August 17, 1988) and *Chemical Waste Management* v. *US EPA*, 86 9 F.2d 1526, 1536 (D.C. Cir. 1989)), "treatment or disposal of [hazardous waste] will be subject to the [LDR] regulation only if that treatment or disposal occurs after the promulgation of applicable treatment standards.") Similarly, environmental media contaminated by hazardous wastes placed before the effective dates of the applicable land disposal restrictions does not become subject to the LDRs unless they are removed from the land and placed into a land disposal unit after the effective dates of the applicable restrictions.

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