

**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Parts 261, 262, and 268**

RIN 2050-AE05

[EPA # F-98-P3F4-FFFFF; FRL-6335-7]

**Land Disposal Restrictions Phase IV:  
Treatment Standards for Wood  
Preserving Wastes, and Treatment  
Standards for Metal Wastes, and Zinc  
Micronutrient Fertilizers, and  
Carbamate Treatment Standards, and  
K088 Treatment Standards, Final Rule**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule; technical correction.

**SUMMARY:** This rule corrects and clarifies five related rules the EPA published on May 12, 1997, May 26, 1998, August 31, 1998, September 4, 1998, and September 24, 1998. On May 12, 1997, EPA published regulations promulgating Land Disposal Restrictions (LDR) treatment standards for wood preserving wastes, as well as reducing the paperwork burden for complying with LDRs. On May 26, 1998, EPA published regulations promulgating LDR treatment standards for metal-bearing wastes, as well as amending the LDR treatment standards for soil contaminated with hazardous waste, and amending the definition of which secondary materials from mineral processing are considered to be wastes subject to the LDRs. On August 31, 1998, EPA published an administrative stay of the metal-bearing waste treatment standards as they apply to zinc micronutrient fertilizers. On September 4, 1998, EPA published an emergency revision of the LDR treatment standards for hazardous wastes from the production of carbamate wastes. On September 24, 1998, EPA published revised treatment standards for spent aluminum potliners from primary aluminum production. Today's rule makes technical corrections and clarifications to these final regulations.

**EFFECTIVE DATE:** This rule is effective on May 11, 1999.

**ADDRESSES:** The public may obtain a copy of this technical correction at the RCRA Information Center (RIC), located at Crystal Gateway One, 1235 Jefferson Davis Highway, First Floor, Arlington, Virginia.

**FOR FURTHER INFORMATION CONTACT:** For general information contact the RCRA Hotline at (800) 424-9346 (toll free) or (703) 920-9810 in the Washington, DC metropolitan area. For information on this rule contact Peggy Vyas (5302W),

Office of Solid Waste, 401 M Street, SW, Washington, DC 20460, (703) 308-5477, e-mail address is

"vyas.peggy@epamail.epa.gov".

**SUPPLEMENTARY INFORMATION:**

**I. Reasons and Basis for Today's Amendments**

The Agency has received several comments from the regulated community requesting clarification and correction of certain aspects of five rules all promulgating and revising Phase IV of the LDRs. These are: the May 12, 1997 LDR Phase IV final rule (the so-called "Mini" Rule, 62 FR 25998), the May 26, 1998 LDR Phase IV final rule (63 FR 28556), the August 31, 1998 administrative stay of the May 26, 1998 rule's applicability to certain zinc micronutrient fertilizers (63 FR 46332), the September 4, 1998 emergency revisions to the treatment standards for carbamate production wastes (63 FR 172), and the September 24, 1998 revisions to the treatment standards for spent aluminum potliners (63 FR 51254). Today's preamble discussion amendments make clarifications and technical corrections where appropriate in light of the comments received.

**II. Clarification of the May 12, 1997 LDR Phase IV "Mini Rule"**

On May 12, 1997, EPA published regulations promulgating certain aspects of the original LDR Phase IV proposal (60 FR 11702, March 2, 1995), including a discussion clarifying point of generation of hazardous wastes (see 60 FR 26006-7, May 12, 1997). That discussion may have been confusing with regard to the status of sludge from high-TOC ignitable waste treated in entirely tank-based NPDES or POTW discharge systems. To clarify, EPA's position is that where wastes are managed in NPDES or POTW discharge systems that are entirely tank-based, the wastes are not destined for land disposal and, therefore, neither the LDR disposal prohibitions nor the treatment standards (or attendant dilution prohibition) apply. Conversely, where an NPDES or POTW discharge system includes a land-based unit (i.e., a surface impoundment), wastes managed in the system are considered to be destined for land disposal, and the LDR regulations do apply. See 61 FR 15566 at 15570 (April 8, 1996), 53 FR 31136 at 31149 (August 17, 1988).

Accordingly, the management of a high-TOC ignitable waste in an entirely tank-based NPDES or POTW discharge system—whether inadvertent or not—would trigger no LDR requirements. Sludge subsequently removed from the tanks would be considered newly-

generated waste (for LDR purposes) regardless of any changes in treatability group, and LDR requirements would apply with respect to its management only if the sludge itself is hazardous waste when removed. If the sludge is a hazardous waste, the LDR treatment standard that would apply would depend on the hazardous waste code and treatability group (or subcategory) of the sludge itself.

**III. Amendments to and Clarifications of the May 26, 1998 LDR Phase IV Final Rule**

Several errors exist in the regulatory language of the LDR Phase IV final rule, which we are correcting with today's rule. We are also making several clarifications to the preamble of the LDR Phase IV final rule.

**A. Corrections to the LDR Phase IV Final Rule**

1. Section 261.2(e)(1)(iii)

Section 261.2(e) identifies materials that are not solid wastes when recycled. The rule added an amendment to § 261.2(e)(1)(iii), which amendment applies only to secondary materials generated and reclaimed by the primary mineral processing industry. The rule inadvertently deleted language in § 261.2(e)(1)(iii) that applies to other industrial sectors recycling secondary materials. The Agency did not intend to eliminate the long-standing regulatory exclusions for other industrial sectors, and indeed effectively stated that the provision was not being amended for other industry sectors, see 63 FR at 28583-584. We are therefore restoring the omitted text in this section.

2. Section 261.4

The Hazardous Waste Combustion Revised Standards published on June 19, 1998 (63 FR 33782) added a paragraph to § 261.4(a)(16), which inadvertently changed what was promulgated in the LDR Phase IV final rule. To avoid confusion, we are redesignating the language promulgated in § 261.4(a)(16) in the LDR Phase IV final rule as § 261.4(a)(17).

Section 261.4(a)(17) (as renumbered in this rule) identifies certain mineral processing secondary materials as subject to a conditional exclusion from subtitle C regulation as follows:

Secondary materials \* \* \* generated within the primary mineral processing industry from which minerals, acids, cyanide, water or other values are recovered by mineral processing.

As noted throughout the preamble, however, the same mineral processing secondary materials are also recovered

in beneficiation operations. See, e.g., 63 FR at 28578. EPA did not intend to restrict the scope of the conditional exclusion to recovery only in mineral processing operations. Id. Consequently, EPA is amending § 261.4(a)(17) to indicate that recovery of these secondary materials may occur in either mineral processing or beneficiation operations.

This same amendment is being made to § 261.4(b)(7)(iii), which sets out the conditions under which wastes from the co-processing of normal feedstock with mineral processing secondary materials remains exempt from subtitle C regulation under the Bevill Amendment. In relevant part, the rule states:

A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials remains excluded under paragraph (b) \* \* \* if the owner or operator:

(A) Processes at least 50 percent by weight normal beneficiation raw materials;

The regulation inadvertently neglected to address the comparable situation when Bevill residues come from mineral processing rather than beneficiation operations. EPA clearly indicates in the preamble that the provisions of paragraph (b)(7)(ii) also apply to co-processing mineral processing secondary materials in beneficiation units. See 63 FR at 28595; see also 54 FR at 36614, 16619-620, 36629 (Sept. 1, 1989); 54 FR at 15324-325, 15341 (April 17, 1989) (prior rulemakings where EPA indicated that these conditions apply). Consequently, EPA is adding clarifying language to § 261.4(b)(7)(iii) to affirm that both beneficiation and mineral processing operations are included.

### 3. Section 268.7

The tables in § 268.7(a) and (b), entitled "Generator Paperwork Requirements Table" and "Treatment Facility Paperwork Requirements Table," are now erroneously missing certain checkmarks, which we are reinstating in today's rule. The LDR Phase IV final rule also added a line eight to the "Generator Paperwork Requirements Table," and a line five to the "Treatment Facility Paperwork Requirements Table," both for contaminated soil, which inadvertently erased the previous lines eight and five. We are correcting this oversight by reinstating the missing lines as nine and six, respectively.

### 4. Section 268.9

The language in § 268.9(d)(2) currently refers to language in § 268.7(b)(5), which has been renumbered as § 268.7(b)(4). Today's

rule amends the language in § 268.9 to correct this miscitation. For more clarification of LDR certifications and how they apply to soil, see the discussion in section B.6.c. below.

### 5. Section 268.40

Today's rule also amends the treatment standard table found in § 268.40. The entry for P015 incorrectly describes this waste as "beryllium dust"; the proper term is "beryllium powder." Also, the entry for U408 gave the incorrect CAS number for 2,4,6-Tribromophenol. We are correcting these errors in today's rule. For other errors in the § 268.40 table, see sections V. and VI. below.

## B. Clarifications to the LDR Phase IV Final Rule

### 1. Effective Dates

The Agency has received a number of questions about the dates when various provisions of the LDR Phase IV final rule become effective. A memorandum explaining in further detail the effective dates of the LDR Phase IV final rule is available in the RCRA docket for the rule, and is also available on the internet at: <http://www.epa.gov/epaoswer/hazwaste/ldr/ldrmetal/memos/effectiv.pdf>.

Part of the confusion over the compliance dates for the LDR Phase IV final rule resulted from EPA incorrectly referring to effective dates as "compliance dates". In the "Effective Dates" section in the preamble (see page 28556, middle column), the Agency lists four exceptions to the August 24, 1998 effective date for the rule. These exceptions are referred to as "compliance dates", when, in fact, they are effective dates.

Another point of clarification relates to the LDR Phase IV final rule amendments of the treatment standards for carbamate wastes, which were originally promulgated in the LDR Phase III final rule on April 8, 1996 (61 FR 15566). The LDR Phase IV amendments went into effect August 24, 1998. However, on September 4, 1998, the Agency changed the compliance dates for the LDR Phase IV carbamate treatment standards. If you have any questions related to compliance with the carbamate treatment standards, we direct you to the Emergency Revision of the Land Disposal Restrictions Treatment Standards for Listed Hazardous Wastes from Carbamate Production, which was published on September 4, 1998 (63 FR 172).

### 2. Waste as Fill

In the May 12, 1997 second supplemental proposed rule, EPA raised

the issue of prohibiting the use of hazardous waste as fill material unless it was demonstrated to the Agency (or authorized State) that the use of the waste minimized threats to human health and the environment (see 62 FR 26061). The Agency did not finalize this issue in the LDR Phase IV final rule, but the proposal remains pending and awaiting EPA further action.

### 3. Cement Kiln Dust

EPA states at 63 FR at 28600/3 that:

The Agency is aware that both cement kiln[s] and aggregate kilns may both burn hazardous waste[e] fuels and that the dusts from air pollution control devices are often blended into final products. Under existing regulations, if these dusts resulting from burning listed hazardous waste fuels are blended into products that are used on the land, the product would be subject to RCRA's 'derived from' rules. \* \* \*

The second sentence refers to a situation where the Bevill amendment does not apply to the residue from burning the hazardous waste derived fuel. The overall sense and intent of this section of the preamble remains that EPA wishes to consider cement kiln dust and dust from lightweight aggregate kilns (including dusts from kilns burning hazardous waste as fuels) in the same fashion because they are similar materials managed in similar manners.

### 4. D004 Treatment Standards

Some confusion also apparently exists as to whether the Universal Treatment Standards (UTS) apply to D004 arsenic wastes. In the preamble to the LDR Phase IV final rule, we state that the UTS apply to both wastewater and nonwastewater forms of the TC metal wastes. But a parenthetical then states that, for TC arsenic wastes, the UTS applies to the wastewater form only. The Agency unfortunately has caused confusion by this parenthetical language. The parenthetical only meant to explain that we were revising or replacing the standard solely for the nonwastewater form of arsenic in LDR Phase IV. We did not intend by the parenthetical to suggest that the wastewater form of arsenic had changed or been eliminated, or that the UTS do not apply. The existing standard for the wastewater form of arsenic was and remains the UTS. Therefore, the UTS have and will continue to apply to D004 arsenic wastes in both forms.

### 5. TC Metal Standards and Mixed Wastes

In the preamble to the final rule, EPA refers to characteristic metal mixed wastes that were previously stabilized to meet the then-existing LDR

requirements and that are now being stored prior to disposal. We indicate that these mixed wastes do not have to be re-treated to meet the revised treatment standards prior to disposal (63 FR 28575-28576). Mixed wastes are those that are both radioactive and hazardous. Although we believe that the preamble is clear, EPA has received a number of inquiries on this point. The Agency wishes to reiterate that, for the reasons explained in the LDR Phase IV preamble, if mixed wastes that are characteristically hazardous for metals were treated via stabilization to the old treatment standards before the effective date of the LDR Phase IV rule, these wastes do not need to be re-treated to meet the new treatment standards even if land disposal of the waste occurs after the effective date of the LDR Phase IV rule. Wastes previously treated by methods other than stabilization will have to be re-treated, as indicated clearly in the LDR Phase IV preamble, unless a site-specific variance is granted. Please note that the preamble further indicates EPA's amenability to grant such variances where, for example, there is risk of re-exposure to radiation. See 63 FR at 28576.

6. Soil Issues

EPA has received numerous questions about the alternative soil treatment standards. Two important questions and their answers appear below. Other questions will be handled through regular information channels, such as the RCRA Hotline at 1-800-424-9346. We also wish to remind readers generally that before receiving authorization for the soil treatment standards, states authorized for other portions of the LDR program may, for contaminated soil, use state waivers or other state authorities to waive the duty to comply with the LDR treatment standards for pure hazardous waste and allow, instead, compliance with the soil treatment standards. This is discussed more fully in the guidance memorandum mentioned above on LDR Phase IV rule effective dates.

a. What are the certification requirements for decharacterized soil? The certification requirements for decharacterized soil are similar to the requirements for decharacterized wastes. The certification language found in § 268.7(b)(4) is to be used if underlying hazardous constituents in decharacterized soil have been treated, either to meet the 90% reduction or the ten times UTS provisions in the soil treatment standards. If underlying

hazardous constituents in decharacterized soil have not been treated and are above the 10 X UTS soil standard, the soil still requires treatment. In this case, the revised certification language found in § 268.7(b)(4)(iv) must be used instead. See 63 FR at 28620.

b. If constituents of concern in a hazardous contaminated soil have a specified method of treatment, can a facility still use the alternative soil treatment standards? In interpreting the alternative soil treatment standards found at § 268.49(c)(3), questions have arisen, particularly with respect to: (1) use of soil treatment standards where the only constituents of concern are nonanalyzable, and (2) situations in which both analyzable and non-analyzable constituents are present. The table below details the appropriate implementation of the language in § 268.49(c)(3), based on language from the preamble to the proposed and final rules with respect to contaminated soils containing both analyzable and nonanalyzable constituents. Readers should note that the following information only applies to constituents of concern present in a hazardous contaminated soil that must meet LDRs before land disposal.

If these constituents are * * *	And if these constituents * * *	Then soils contaminated with these constituents meet LDR treatment requirements when you * * *
Nonanalyzable only .....	Have a method of treatment specified in § 268.40 .....	Treat all of these constituents using the treatment method[s] specified in § 268.40.
Analyzable and nonanalyzable.	Are organic compounds .....	Treat analyzable constituents to numerical soil treatment levels; no need to separately treat nonanalyzable constituents using method specified in § 268.40.
analyzable only .....	Have a method of treatment specified in § 268.40 AND ALSO a concentration-based limit in the § 268.48 UTS table.	Treat each constituent to numerical soil treatment levels.
	Have only concentration based limits in § 268.40 and § 268.48.	Treat each constituent to numerical soil treatment levels.

The preambles to both the final and proposed rules on contaminated soils make clear that EPA intended to allow treatment of analyzable constituents to serve as a surrogate for treating unanalyzable constituents only when the analyzable and unanalyzable constituents are both organics. The Phase IV preamble thus states that "[i]n situations where contaminated soil contains both analyzable and nonanalyzable organic constituents, treating the analyzable constituents to meet the soil treatment standards is also reasonably expected to provide adequate treatment of nonanalyzable constituents." 63 FR at 28609 (emphasis added). This sentence indicates that it is reasonable to expect that treatment for

analyzable organic constituents will be sufficiently effective for other organic, but nonanalyzable, constituents. See also, Phase II proposal, 58 FR at 48124 (col. 2) (Sept. 14, 1993) (likewise stating that the principle of treating only analyzable constituents applies only where analyzable and nonanalyzable constituents are both organics). We are accordingly amending the language of the rule so that it matches these preamble explanations.

This leaves unaddressed in the rule situations (which may or may not actually exist) where analyzable and unanalyzable hazardous constituents are not both organics. If the situation exists, it would not be reasonable to assume in all situations that organic treatment

would serve as a surrogate for inorganic or metal treatment, or vice versa. Should the situation arise, EPA believes it should be addressed on a site-specific basis. The relevant factors to be considered include the types of hazardous constituents, their concentrations (for the analyzable constituents), and their amenability to common treatment.

c. What are nonanalyzable constituents? A nonanalyzable constituent is any constituent that does not have appropriate test methods or chemical standards to properly measure compliance with LDR concentration-based standards. A constituent is nonanalyzable under LDR regulation when (1) the appropriate § 268.40 listing

specifies a treatment technology, and (2) there is no concentration-based limit in the § 268.48 UTS table. We note, simply for technical accuracy, that the Phase IV preamble (63 FR 28609, col. 2) refers in a parenthetical statement to nonanalyzable constituents as belonging only to P and U waste codes. That preamble parenthetical is not entirely correct. A limited number of organic nonanalyzable constituents are also regulated under K and F waste codes. This clarification does not affect implementation of § 268.49(c)(3) in any way.

#### 7. Intentional Mixing of Hazardous Waste With Soil or Debris

It is illegal to add soil or debris to a hazardous waste to change the waste's treatment classification to soil or debris and thereby to falsely claim eligibility for the alternative treatment standards for soil or debris. Put another way, addition of soil or debris to a hazardous waste does not change that waste into soil or debris for purposes of LDR treatment. As the Agency stated in the May 26, 1998 preamble, "[A]ny deliberate mixing of prohibited hazardous waste with soil in order to change its treatment classification (i.e. from waste to contaminated soil) is illegal. Existing regulations concerning impermissible dilution already make this point." 63 FR at 28621. The conduct is impermissible dilution because it adds a diluting medium—the soil—that neither contributes to effective treatment nor represents a bona fide substitute for adequate treatment. *Id.*

EPA further made clear that this conduct subjects generators to civil and criminal penalties. 63 FR at 28621. In addition, the impermissibly diluted waste remains subject to the original treatment standard, "so no benefit in terms of reduced treatment would occur." *Id.*

EPA had earlier established the same principle for debris: "[a]lthough EPA is classifying mixtures that are predominantly debris as debris, this does not mean that debris can be deliberately mixed with other wastes in order to change their treatment classification. Such mixing is impermissible dilution under § 268.3 since it is a substitute for adequate treatment." 57 FR at 37224 (Aug. 18, 1992); see also 57 FR at 37243 ("if debris is intentionally mixed with contaminated soil or hazardous waste (e.g. after excavation), and the mixture is regulated as debris by the application of the mixture principle and subsequently immobilized, prohibited sham mixing has occurred").

To ensure that there is no possibility of misunderstanding current law, EPA has decided to amend the definitions in § 268.2 to reflect more directly the preamble language stating that intentional addition of soil or debris to hazardous waste is impermissible. Currently, the definitions of "soil" and "debris", respectively state that soil or debris is "made up primarily of soil" or "primarily of debris." 40 CFR § 268.2 (k) and (g). To remove any possible (albeit unfounded, given the existence of the dilution prohibition in § 268.3 and the preamble language quoted above) confusion regarding the term "primarily" in the rules, EPA is incorporating language directly into the respective definitions that states that deliberate mixing of process waste to soil or debris that changes a treatment classification is impermissible dilution. These additions merely incorporate existing preamble text into regulations and do not establish any new principles. Thus, today's correction is at most an interpretive rule because EPA's existing interpretations are being codified as clarifications to the definitions of soil and debris and to the existing dilution prohibition in § 268.3. Moreover, no new obligations are created because existing regulations—viz., the dilution prohibition in § 268.3—already make the conduct illegal. Whether the change is a technical correction or an interpretive rule, no opportunity for notice and comment is required. 5 U.S.C. § 553(b).

#### 8. Treatment Residuals and Point of Generation of a New Hazardous Waste for LDR Purposes

The Agency has received several inquiries concerning treating TC metal wastes and the potential for finding underlying hazardous constituents at levels above the UTS in the treatment residuals that were either not present in the waste prior to treatment or may have been present but only at levels below the UTS. This would occur, for example, if the treatment process is such that certain underlying hazardous constituents (UHCs) might be more concentrated in treatment residuals than in the original waste.

Two illustrative scenarios are useful. The first involves a D007 chromium waste that is incinerated. Trace quantities of lead are present in the original waste, but at levels below the UTS (thus, lead is not a UHC under 40 CFR § 268.2(i)). The resulting ash is no longer characteristic for chromium, but lead is now present at levels above the UTS. The second involves a D008 lead wastewater that contains no underlying hazardous constituents as generated, but

that is treated with dithiocarbamate, a metal precipitating agent. Dithiocarbamate is also a hazardous constituent that appears on the list of potential UHCs in § 268.48. The dithiocarbamate assists the stabilization of the lead but, after treatment, is present at levels above the UTS in the treatment residuals.

In both of these cases, the treatment residuals (ash and sludge) demonstrate that the original waste is decharacterized. Under § 268.2(i), the only UHCs that must be treated and that must meet the Universal Treatment Standards (UTS) are those determined to be present above UTS levels in the original waste—either via testing or generator knowledge. Because the treatment process results in non-hazardous residuals, the treatment facility is not responsible for additional testing to determine if any different underlying hazardous constituents are added or created during the treatment process itself. Furthermore, only the original UHCs must meet the UTS.

However, if in either case the treatment residual is also characteristic by having constituents that are not only above the UTS level but also above the TC level, then the residual is a newly-generated hazardous waste for LDR purposes. This result is consistent with the definition of generator at § 260.10: "Generator means any person, by site, whose act or process produces hazardous waste identified or listed in part 261 \* \* \* \*". The result is also consistent with the key LDR principle that hazardous wastes must meet LDR treatment standards to minimize threats before the wastes are land disposed. See, e.g., *Chemical Waste Management v. EPA*, 976 F.2d 2, 16–18 (D.C. Cir. 1992) (treatment must include treatment for both characteristic property and for underlying hazardous constituents). For these reasons, the Agency regards generation of a new characteristic treatment residual as being a new point of generation for LDR purposes. This newly-formed hazardous waste would have to be treated to below the characteristic, and any underlying hazardous constituents would have to be treated to below their UTS levels.<sup>1</sup>

<sup>1</sup> This analysis is consistent with the so-called change of treatability group principle first stated at 55 FR at 22661, col. 2 (June 1, 1990). That principle states that LDR prohibitions remain attached to the initial waste as long as the waste remains within the same treatability group (normally wastewater or nonwastewater). Thus, if a characteristic wastewater is treated and a non-wastewater sludge is generated from the treatment process, the prohibition for the wastewater does not automatically apply to the sludge. *Id.* The situation discussed in the text above, however, involves the

Thus, in the first scenario above regarding a decharacterized waste with lead in the ash, if the lead is present in the ash at or above TC levels (i.e., a new D008 waste has been generated), the lead must be treated to UTS levels. Furthermore, the treater has generated the new hazardous waste for LDR purposes and is responsible for a new determination of UHCs that are present and that require treatment to UTS levels. The same is true in the second example if the dithiocarbamate treatment sludge is characteristic.

EPA notes further, however, that in determining whether a treatment process has generated a new hazardous waste for LDR purposes, the Agency looks to the entire treatment process, not to each component part. In general, as explained below, the determination of whether a new hazardous waste is generated—i.e., whether a new point of generation for LDR purposes is created—is made at the completion of the treatment process. Thus:

(i) For residuals that are the end product of a one-step treatment process or the end product of a treatment train, the treater has the obligation to ensure only that the original UHCs meet UTS standards and that the treatment residuals are not themselves characteristic. If a treatment residual in this scenario does not meet the treatment standards for the original characteristic (i.e., when treatment is ineffective or incomplete) and requires further treatment, EPA does not consider the treatment residue to be newly generated for LDR purposes. Such a treatment residue, however, cannot be land disposed until it meets the treatment standard applicable to the original waste. This situation would normally involve re-treating the waste residuals on-site. Any UHCs added or created by the treatment process are not required to be treated because there is no new point of generation for LDR purposes. However, as noted above, if the treatment residuals are themselves characteristic due to a new property (for example, the formerly characteristic chromium D007 waste is now characteristic only for D008 lead), then the treater must make a new determination of the UHCs present—either through knowledge or additional testing. This is the same obligation that attaches to any generator of a hazardous waste.

(ii) For treatment residuals that appear only at intermediate steps of a

treatment train, there is no obligation to determine UHCs or to determine whether the residual is itself characteristic. Intermediate-step treatment residuals are not newly generated hazardous wastes for LDR purposes. Thus, even when an intermediate treatment residual is sent off-site for further treatment (such as incinerator ash going offsite for stabilization and landfilling), our current regulations at § 268.7(b)(5) require only that the UHCs identified at the LDR point of generation be identified. There is no such requirement for any new UHCs that may be added or created during the preceding steps of the treatment process.

#### 9. Clarification of Footnote 7 in Preamble

LDR Phase IV, as mentioned earlier, deals with the status of mineral processing materials under the RCRA definition of solid waste at § 261.2. Footnote seven of the preamble to the LDR Phase IV final rule, as printed in the **Federal Register**, reads: "EPA does note the potential anomaly that non-mineral processing secondary materials, at least for the moment, will be regulated in some cases stringently than those generated and reclaimed within the mineral processing industry." 63 FR at 28583 n. 7. This language reflects a printing error by the Office of Federal Register which erroneously omitted the word "less" before the word "stringently" in this sentence. The footnote thus should read: "EPA does note the potential anomaly that non-mineral processing secondary materials, at least for the moment, will be regulated in some cases less stringently than those generated and reclaimed within the mineral processing industry."

Of course, as EPA noted elsewhere in the rule, secondary materials within the mineral processing industry will be regulated in other instances less stringently than those from outside the industry (the principal example being characteristic spent materials being reclaimed). The main point, as expressed in the footnote, is that the new rules establish a separate solid waste classification scheme for the mineral processing industry that differs from the generic classification scheme set out in the remainder of § 261.2.

#### IV. Amendment to the August 31, 1998 Stay for Certain Zinc Micronutrient Fertilizers

On August 31, 1998, EPA issued an administrative stay of the Phase IV rule as it applies to zinc micronutrient fertilizers that are produced from

hazardous wastes exhibiting the toxicity characteristic. 63 FR 46332. Although EPA clearly stated throughout the rule that the administrative stay applied to "zinc micronutrient fertilizers," the regulatory language codifying the stay mistakenly refers instead to "zinc-containing fertilizers." See 63 FR 46334, to be codified at 40 CFR § 268.40(i). There exists a remote possibility that there are fertilizers produced from toxicity characteristic hazardous wastes that do not utilize zinc as a micronutrient but otherwise contain zinc (possibly as a trace element without nutritive value). Since the administrative stay was not meant to apply to such (hypothetical) fertilizers, EPA is amending the regulatory language to cover only zinc micronutrient fertilizers, as intended.

#### V. Amendments to the September 4, 1998 Emergency Revision of the Treatment Standards for Listed Hazardous Wastes From Carbamate Production

The September 4, 1998 Emergency Revision of the LDR Treatment Standards for Listed Hazardous Wastes from Carbamate Production (63 FR 172) adds a paragraph (i) to § 268.40, which inadvertently replaced the existing paragraph (i) added by the Land Disposal Restrictions final rule published on August 31, 1998 (staying LDR metal standards for zinc micronutrient fertilizers). Today's rule redesignates the current paragraph (i) as paragraph (j), and reinserts the paragraph (i) from the August 31, 1998 rule (as additionally amended in this correction notice, see section IV above). The September 4, 1998 rule also inadvertently changes footnotes eight and 11 to the table of treatment standards found in § 268.40. The correct footnotes are reinstated in today's rule.

A more significant error in the September 4, 1998 Emergency Rule is the removal of footnote six for all constituents listed in the table of Universal Treatment Standards found in § 268.48. In doing so, the rule mistakenly changes the status of certain carbamate constituents, which should not be underlying hazardous constituents until their newly revised treatment standards go into effect on March 4, 1999. By removing the footnote, these carbamate constituents are considered underlying hazardous constituents as of September 4, 1998, the effective date of the Emergency Rule. This was and is not the Agency's intention, and we are therefore reinstating the footnote with the correct date of March 4, 1999.

status for this hypothetical sludge if it itself exhibits a characteristic of hazardous waste. EPA views such a characteristic sludge as being newly generated for LDR purposes.

The treatment standards for K159 in the Table of Treatment Standards for Hazardous Wastes in § 268.40 are currently incorrect. The standards were and should be those promulgated in the LDR Phase III final rule (61 FR 15566, April 8, 1996). However, those standards were inadvertently and mistakenly revised in a technical correction on February 19, 1997 (62 FR 7502). Today's rule reinstates the correct treatment standards for K159 in the § 268.40 table.

Finally, today's rule also corrects: (1) the nonwastewater standard for oxamyl, which was listed incorrectly in the entry for P194; and (2) the CAS numbers for acetophenone and triethylamine, which were listed incorrectly in the entries for K156 and U404, respectively.

#### **VI. Amendment to the September 24, 1998 Revision of the Treatment Standards for Spent Potliners From Primary Aluminum Reduction (K088)**

On September 24, 1998 EPA promulgated revised LDR treatment standards for waste code K088. The rule changes the nonwastewater standard for arsenic in K088 from 5.0 mg/l TCLP to 26.1 mg/kg total, and also changes the nonwastewater standard for fluoride in K088 from 48 mg/l TCLP to NA. The wastewater standard for fluoride is unaffected by the rule. (That standard also is not affected by the court's rationale in *Columbia Falls Aluminum Co. v. EPA*, 139 F. 3d 914, 922–23 (D.C. Cir. 1998) because the standard for fluoride wastewaters does not involve the use of the TCLP.) Unfortunately, the final rule inadvertently omitted fluoride, and its treatment standards, from the entry for K088 in the table of treatment standards in § 268.40. Because of this omission, the change to the nonwastewater standard for fluoride was not codified. Today we are restoring fluoride and its revised standards in the entry for K088 in the § 268.40 table.

#### **VII. Analysis Under Executive Order 12866, Executive Order 12875, Executive Order 12898, Executive Order 13045, Executive Order 13084, the Unfunded Mandates Reform Act of 1995, the Regulatory Flexibility Act, and the Paperwork Reduction Act**

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and is therefore not subject to review by the Office of Management and Budget. In addition, this action does not impose any enforceable duty, contain any unfunded mandate, or impose any significant or unique impact on small governments as described in the Unfunded Mandates Reform Act of 1995

(Pub. L. 104–4). This rule also does not require prior consultation with State, local, and tribal government officials as specified by Executive Order 12875 (58 FR 58093, October 28, 1993) or Executive Order 13084 (63 FR 27655, May 10, 1998), or involve special consideration of environmental justice related issues as required by Executive Order 12898 (59 FR 7629, February 16, 1994). Because this action is not subject to notice-and-comment requirements under the Administrative Procedure Act or any other statute, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because EPA interprets E.O. 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Order has the potential to influence the regulation. This rule is not subject to E.O. 13045 because it does not establish an environmental standard intended to mitigate health or safety risks. EPA's compliance with these statutes and Executive Orders for the underlying rule is discussed in the May 12, 1997, the May 26, 1998, the August 31, 1998, the September 4, 1998, and the September 24, 1998 **Federal Register** notices.

#### **VIII. Submission to Congress and the General Accounting Office**

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Section 808 allows the issuing agency to make a good cause finding that notice and public procedure is impracticable, unnecessary or contrary to the public interest. This determination must be supported by a brief statement. 5 U.S.C. 808(2). As stated previously, EPA has made such a good cause finding, including the reasons therefor, and established an effective date of May 11, 1999. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

#### **IX. Immediate Effective Date**

EPA is making this rule effective immediately. The rule adopts corrections which are purely technical in that they correct outright printing errors, or are manifestly inconsistent with the Agency's stated intent. Comment on such changes is unnecessary, within the meaning of 5 U.S.C. 553(b)(3)(B). For the same reasons, there is good cause to make the rule effective immediately pursuant to 5 U.S.C. 553(d)(3).

#### **List of Subjects**

##### **40 CFR Part 261**

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

##### **40 CFR Part 262**

Hazardous waste, Labeling, Manifest, Reporting and recordkeeping requirements.

##### **40 CFR Part 268**

Hazardous waste, Reporting and recordkeeping requirements.

Dated: April 20, 1999.

**Timothy Fields, Jr.**,

*Acting Assistant Administrator.*

For the reasons set forth in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

#### **PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

##### **Subpart A—General**

1. The authority citation for Part 261 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

2. Section 261.2 is amended by revising paragraph (c)(3), in Table 1 in paragraph (c)(4) by revising the reference "261.4(a)(15)" in the heading of column 3 to read "261.4(a)(17)", and paragraph (e)(1)(iii) is revised to read as follows:

##### **§ 261.2 Definition of solid waste.**

\* \* \* \* \*

(c) \* \* \*

(3) *Reclaimed.* Materials noted with a "\*" in column 3 of Table 1 are solid wastes when reclaimed (except as provided under 40 CFR 261.4(a)(17)). Materials noted with a "---" in column 3 of Table 1 are not solid wastes when reclaimed (except as provided under 40 CFR 261.4(a)(17)).

\* \* \* \* \*

(e) \* \* \*

(1) \* \* \*

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at § 261.4(a)(17) apply rather than this paragraph.

3. Section 261.4 is amended by redesignating the first paragraph (a)(16) as (a)(17), and by revising paragraphs (a)(17) introductory text, (a)(17)(v), and (b)(7)(iii) introductory text and (b)(7)(iii)(A) to read as follows:

**§ 261.4 Exclusions.**

(a) \* \* \*  
 (17) Secondary materials (i.e., sludges, by-products, and spent materials as defined in § 261.1) (other than hazardous wastes listed in subpart D of this part) generated within the primary mineral processing industry from which minerals, acids, cyanide, water or other values are recovered by mineral processing or by beneficiation, provided that:

(v) The owner or operator provides a notice to the Regional Administrator or State Director, identifying the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in non land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(b) \* \* \*  
 (7) \* \* \*

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under paragraph (b) of this section if the owner or operator:

(A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,

\* \* \* \* \*

**PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE**

4. The authority citation for part 262 continues to read as follows:

**Authority:** 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

**Subpart C—Pre-Transport Requirements**

5. Section 262.34 is amended by revising paragraph (d)(4) to read as follows:

**§ 262.34 Accumulation time.**

\* \* \* \* \*

(d) \* \* \*  
 (4) The generator complies with the requirements of paragraphs (a)(2) and (a)(3) of this section, the requirements of subpart C of part 265, the requirements of 40 CFR 268.7(a)(5); and

\* \* \* \* \*

**PART 268—LAND DISPOSAL RESTRICTIONS**

6. The authority citation for part 268 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, and 6924.

**Subpart A—General**

7. Section 268.2 is amended by revising paragraphs (h) and (k) to read as follows:

**§ 268.2 Definitions applicable in this part.**

\* \* \* \* \*

(h) Hazardous debris means debris that contains a hazardous waste listed in subpart D of part 261 of this chapter, or that exhibits a characteristic of hazardous waste identified in subpart C of part 261 of this chapter. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition in § 268.3.

\* \* \* \* \*

(k) *Soil* means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition in § 268.3.

8. Section 268.7 is amended by revising entries 1, 3, and 8 to the table entitled “Generator Paperwork Requirements Table” in paragraph (a)(4), by revising entry 1 to the table entitled “Treatment Facility Paperwork Requirements Table” in paragraph (b)(3)(ii), and by revising paragraph (b)(4)(iv) to read as follows:

**§ 268.7 Testing, tracking, and recordkeeping requirements for generators, treaters, and disposal facilities.**

\* \* \* \* \*

(a) \* \* \*

(4) \* \* \*

GENERATOR PAPERWORK REQUIREMENTS TABLE

Required information	§ 268.7(a)(2)	§ 268.7(a)(3)	§ 268.7(a)(4)	§ 268.7(a)(9)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment .....	✓	✓	✓	✓
* * * * *				
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice .....	✓	✓		

GENERATOR PAPERWORK REQUIREMENTS TABLE—Continued

Required information	§ 268.7(a)(2)	§ 268.7(a)(3)	§ 268.7(a)(4)	§ 268.7(a)(9)
8. For contaminated soil subject to LDRs as provided in § 268.49(a), the constituents subject to treatment as described in § 268.49(d), and the following statement: This contaminated soil [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with the soil treatment standards as provided by § 268.49(c) or the universal treatment standards] .....	✓	✓		
9. A certification is needed (see applicable section for exact wording) .....		✓		✓

(b) \* \* \*

(3) \* \* \*

(ii) \* \* \*

TREATMENT FACILITY PAPERWORK REQUIREMENTS TABLE

Required Information	§ 268.7(b)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment .....	✓
6. A certification is needed (see applicable section for exact wording) .....	✓

(4) \* \* \*

(iv) For characteristic wastes that are subject to the treatment standards in § 268.40 (other than those expressed as a method of treatment), or § 268.49, and that contain underlying hazardous constituents as defined in § 268.2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for

submitting a false certification, including the possibility of fine and imprisonment.

9. Section 268.9 is amended by revising paragraphs (d)(2) introductory text and (d)(2)(i) to read as follows:

**§ 268.9 Special rules regarding wastes that exhibit a characteristic.**

(d) \* \* \*

(2) The certification must be signed by an authorized representative and must state the language found in § 268.7(b)(4).

(i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in § 268.7(b)(4)(iv) applies.

10. Section 268.40 is amended by redesignating the first paragraph (i) as paragraph (j), by revising paragraph (i), and the table at the end of the section is amended by revising the entries for K088, K156, K159, P194, U404 and U408, and footnotes 8 and 11 to read as follows:

**§ 268.40 Applicability of treatment standards.**

(i) Zinc micronutrient fertilizers that are produced for the general public's use and that are produced from or contain recycled characteristic hazardous wastes (D004–D011) are subject to the applicable treatment standards in § 268.41 contained in the 40 CFR, parts 260 to 299, edition revised as of July 1, 1990.

TREATMENT STANDARDS FOR HAZARDOUS WASTES

[Note: NA means not applicable.]

Waste code	Waste description and treatment/regulatory subcategory <sup>1</sup>	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS <sup>2</sup> No.	Concentration in mg/l <sup>3</sup> ; or technology code <sup>4</sup>	Concentration in mg/kg <sup>5</sup> unless noted as "mg/l TCLP"; or technology code
K088 .....	Spent potliners from primary aluminum reduction.	Acenaphthene .....	83–32–9	0.059	3.4
	.....	Anthracene .....	120–12–7	0.059	3.4
	.....	Benz(a)anthracene .....	56–55–3	0.059	3.4
	.....	Benzo(a)pyrene .....	50–32–8	0.061	3.4
	.....	Benzo(b)fluoranthene .....	205–99–2	0.11	6.8
	.....	Benzo(k)fluoranthene .....	207–08–9	0.11	6.8
	.....	Benzo(g,h,i)perylene .....	191–24–2	0.0055	1.8
	.....	Chrysene .....	218–01–9	0.059	3.4
	.....	Dibenz(a,h)anthracene .....	53–70–3	0.055	8.2
	.....	Fluoranthene .....	206–44–0	0.068	3.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable.]

Waste code	Waste description and treatment/regulatory subcategory <sup>1</sup>	Regulated hazardous constituent		Wastewaters	Nonwastewaters	
		Common name	CAS <sup>2</sup> No.	Concentration in mg/l <sup>3</sup> ; or technology code <sup>4</sup>	Concentration in mg/kg <sup>5</sup> unless noted as "mg/l TCLP"; or technology code	
		Indeno(1,2,3,-c,d)pyrene .....	193-39-5	0.0055	3.4	
		Phenanthrene .....	85-01-8	0.059	5.6	
		Pyrene .....	129-00-0	0.067	8.2	
		Antimony .....	7440-36-0	1.9	1.15 mg/l TCLP	
		Arsenic .....	7440-38-2	1.4	26.1 mg/l TCLP	
		Barium .....	7440-39-3	1.2	21 mg/l TCLP	
		Beryllium .....	7440-41-7	0.82	1.22 mg/l TCLP	
		Cadmium .....	7440-43-9	0.69	0.11 mg/l TCLP	
		Chromium (Total) .....	7440-47-3	2.77	0.60 mg/l TCLP	
		Lead .....	7439-92-1	0.69	0.75 mg/l TCLP	
		Mercury .....	7439-97-6	0.15	0.025 mg/l TCLP	
		Nickel .....	7440-02-0	3.98	11 mg/l TCLP	
		Selenium .....	7782-49-2	0.82	5.7 mg/l TCLP	
		Silver .....	7440-22-4	0.43	0.14 mg/l TCLP	
		Cyanide (Total) <sup>7</sup> .....	57-12-5	1.2	590	
		Cyanide (Amenable) <sup>7</sup> .....	57-12-5	0.86	30	
		Fluoride .....	16984-48-8	35	NA	
		*	*	*	*	*
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. <sup>10</sup>	Acetonitrile .....	75-05-8	5.6	1.8	*
		Acetophenone .....	98-86-2	0.010	9.7	
		Aniline .....	62-53-3	0.81	14	
		Benomyl .....	17804-35-2	0.056	1.4	
		Benzene .....	71-43-2	0.14	10	
		Carbaryl .....	63-25-2	0.006	0.14	
		Carbenzadim .....	10605-21-7	0.056	1.4	
		Carbofuran .....	1563-66-2	0.006	0.14	
		Carbosulfan .....	55285-14-8	0.028	1.4	
		Chlorobenzene .....	108-90-7	0.057	6.0	
		Chloroform .....	67-66-3	0.046	6.0	
		o-Dichlorobenzene .....	95-50-1	0.088	6.0	
		Methomyl .....	16752-77-5	0.028	0.14	
		Methylene chloride .....	75-09-2	0.089	30	
		Methyl ethyl ketone .....	78-93-3	0.28	36	
		Naphthalene .....	91-20-3	0.059	5.6	
		Phenol .....	108-95-2	0.039	6.2	
		Pyridine .....	110-86-1	0.014	16	
		Toluene .....	108-88-3	0.080	10	
		Triethylamine .....	121-44-8	0.081	1.5	
		*	*	*	*	*
K159	Organics from the treatment of thiocarbamate wastes. <sup>10</sup>	Benzene .....	71-43-2	0.14	10	*
		Butylate .....	2008-41-5	0.042	1.4	
		EPTC (Eptam) .....	759-94-4	0.042	1.4	
		Molinatate .....	2212-67-1	0.042	1.4	
		Pebulate .....	1114-71-2	0.042	1.4	
		Vernolate .....	1929-77-7	0.042	1.4	
		*	*	*	*	*
P194	Oxamyl .....	Oxamyl .....	23135-22-0	0.056	0.28	*
		*	*	*	*	*
U404	Triethylamine .....	Triethylamine .....	121-44-8	0.081	1.5	*
		*	*	*	*	*
U408	2,4,6-Tribromophenol .....	2,4,6-Tribromophenol .....	118-79-6	0.035	7.4	*

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued

[Note: NA means not applicable.]

Waste code	Waste description and treatment/regulatory subcategory <sup>1</sup>	Regulated hazardous constituent		Wastewaters	Nonwastewaters
		Common name	CAS <sup>2</sup> No.	Concentration in mg/l <sup>3</sup> ; or technology code <sup>4</sup>	Concentration in mg/kg <sup>5</sup> unless noted as "mg/l TCLP"; or technology code
*	*	*	*	*	*

<sup>1</sup> The waste descriptions provided in this table do not replace waste descriptions in 40 CFR 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.

<sup>2</sup> CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.

<sup>3</sup> Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

<sup>4</sup> All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.

<sup>5</sup> Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264 Subpart O or Part 265 Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

<sup>7</sup> Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

<sup>8</sup> These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems, are not subject to treatment standards. (See § 268.1(c)(3) and (4)).

<sup>10</sup> The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Part, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this Part, for wastewaters.

<sup>11</sup> For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266, (2) combustion units permitted under 40 CFR Part 264, Subpart O, or (3) combustion units operating under 40 CFR 265, Subpart O, which have obtained a determination of equivalent treatment under 268.42 (b).

11. In § 268.48, the table in paragraph (a) is amended by adding footnote number "6" in column one, under the heading *Regulated Constituents/ Common Name*, after the following chemical names: "Aldicarb sulfone," "Barban," "Bendiocarb," "Benomyl," "Butylate," "Carbaryl," "Carbenzadim," "Carbofuran," "Carbofuran phenol," "Carbosulfan," "m-Cumenyl methylcarbamate," "Dithiocarbamates (total)," "EPTC," "Formetanate hydrochloride," "Methiocarb," "Methomyl," "Metolcarb," "Mexacarbate," "Molinate," "Oxamyl," "Pebulate," "Physostigmine," "Physostigmine salicylate," "Promecarb," "Propham," "Propoxur," "Prosulfocarb," "Thiodicarb,"

"Thiophanate-methyl," "Triallate," "Triethylamine," and "Vernolate;" and by adding footnote 6 to read as follows:

**§ 268.48 Universal treatment standards.**

(a) \* \* \*

6. Between August 26, 1998 and March 4, 1999, these constituents are not "underlying hazardous constituents" as defined in § 268.2(i) of this part.

12. Section 268.49 is amended by revising paragraph (c)(3) as follows:

**§ 268.49 Alternative LDR treatment standards for contaminated soil.**

\* \* \* \* \*

(c) \* \* \*

(3) Soils that contain nonanalyzable constituents. In addition to the

treatment requirements of paragraphs (c)(1) and (2) of this section, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(A) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in paragraphs (c)(1) and (2) of this section; or,

(B) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in § 268.42 for the waste contained in the soil.

[FR Doc. 99-11271 Filed 5-10-99; 8:45 am]

BILLING CODE 6560-50-P