

TABLE VI-1.—PROPOSED TREATMENT STANDARDS FOR CONSTITUENTS IN K181—Continued

Constituents of concern	CAS No.	Wastewater (mg/L)	Nonwastewater (mg/kg)
Toluene-2,4-diamine	95-80-7	0.020	1.30

* Existing Universal Treatment Standard. No change is proposed.

** Treatment standards would be proposed for this constituent if zero biodegradation is assumed. See section IV.A.4.

D. What Changes to Existing Treatment Requirements Are Proposed?

We also propose to add the constituents in K181 with numerical treatment standards to the Universal Treatment Standards (UTS) listed at 40 CFR 268.48. This action would potentially add five chemicals with the standards in Table VI-1 to the UTS if biodegradation rates are assigned for all constituents based upon structural similarity, namely: o-anisidine, p-cresidine, 2,4-dimethylaniline, 1,3-phenylenediamine, and toluene-2,4-diamine. If biodegradation rates are assumed to be zero for constituents that do not have a reported value, then there are three additional constituents that may require promulgation of universal treatment standards. The three are azobenzene, benzaldehyde, and p-toluidine. As a result, characteristic wastes that also contain these constituents will require additional treatment before disposal, if constituent concentrations exceed the proposed levels.

We propose to amend the constituents of concern in F039 as necessary to include the constituents identified in K181 not already specified in F039 (the same constituents named above for the UTS). F039 applies to landfill leachates generated from multiple listed wastes in lieu of the original waste codes. F039 wastes are subject to numerical treatment standards equivalent to the universal treatment standards listed at 40 CFR 268.48. Without this change in existing regulations, F039 landfill leachates may not receive proper treatment for the constituents of K181.

The proposed treatment standards reflect the performance of best treatment technologies, and are not based on the listing levels of concern derived from the risk assessment for dyes and/or pigments wastes. In that risk assessment, our analysis focused on the plausible management practices for only the dyes and pigments industries. As a result, our models did not attempt to assess all possible pathways, because the plausible management practice (disposal in a municipal Subtitle D landfill) provides a certain level of control over some potential release pathways. In addition, our assessment of potential releases modeled

engineered barriers, in the form of various types of liner systems.

It is not appropriate to use the mass loading levels derived from these risk assessments as levels at which threats to human health and to the environment are minimized. The risk analysis does not address all of the long-term uncertainties associated with land disposal of these wastes. (See section 3004 (g)(5) and 55 FR 6640, 6642 (February 26, 1990).) Nor is it permissible to consider artificial liner systems, or other engineered barriers, in assessing whether threats posed by land disposal of a hazardous waste have been minimized. *API v. EPA*, 906 F. 2d 726, 735-36 (threats to human health and the environment must be minimized *before* land disposal occurs); cf. S. Rep. 284, 98th Cong. 1st Sess. at 15 (“Artificial barriers cannot provide the assurances necessary to meet the standard,” referring to the parallel no-migration standard for determining if a method of land disposal is protective without the need for pretreating the waste before land disposal occurs).

Because there remain significant uncertainties as to what levels of hazardous constituents in these wastes would minimize threats to human health and to the environment posed by these wastes’ land disposal, we are choosing to develop treatment standards for these wastes based on performance of the Best Demonstrated Available Technology for these wastes. *HWTC III*, 886 F. 2d at 361-363 (accepting this approach). For the same reason, we are finding that these technology-based treatment standards are not more stringent than the risk-based levels at which we could find that threats to human health and to the environment are minimized.

E. Other LDR-Related Provisions

EPA has adopted special LDR treatment standards for debris contaminated by hazardous waste. See § 268.45. EPA is proposing that these provisions would also apply to hazardous debris cross-contaminated with K181. Debris contaminated with K181 would be required to be treated prior to land disposal, using specific technologies from one or more of the following families of debris treatment

technologies: extraction, destruction, or immobilization. If such debris is treated by immobilization, it remains a hazardous waste and must be managed in a hazardous waste facility. Residuals generated from the treatment of debris contaminated with K181 would remain subject to the treatment standards proposed today. (See 57 FR 37277, August 18, 1992, for additional information on the applicability, scope, and content of the hazardous debris provisions.)

Lastly, because land disposal also includes placement in injection wells (40 CFR 268.2(c)) application of the land disposal restrictions to K181 requires the modification of injection well requirements found in 40 CFR part 148. We propose that K181 be prohibited from underground injection. (See 40 CFR part 148.) Therefore, K181 wastes may not be underground injected unless they have been treated in compliance with the LDR treatment standards or are injected into a Class 1 well from which it has been determined that there will be no migration of hazardous constituents for as long as the wastes remain hazardous.

F. Is There Treatment and Management Capacity Available for These Proposed Newly Identified Wastes?

1. What Is a Capacity Determination?

When EPA develops new hazardous waste LDR regulations, we must determine whether adequate alternative treatment capacity exists nationally to manage the waste and meet the new treatment standards. The LDRs are effective when promulgated unless EPA grants a national capacity variance from the otherwise-applicable date and establishes a different date (not to exceed two years beyond the statutory deadline) based on “. . . the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available” (RCRA section 3004(h)(2)).

Our capacity analysis methodology focuses on the amount of waste currently disposed on the land, which will require alternative or additional treatment as a result of the LDRs. The quantities of wastes that are not subject to LDRs, such as discharges regulated