

TABLE 1.—MAXIMUM TCLP CONSTITUENT CONCENTRATIONS OF THE STABILIZED HAZARDOUS INCINERATOR ASH AND CORRESPONDING DELISTING LIMITS ¹—Continued

Constituent	Total constituent analyses (mg/kg)	TCLP leachate conc. (mg/l)	Maximum allowable TCLP conc. (mg/l)
Benzo(b)fluoranthrene	0.70	ND	0.0038
Benzo(k)fluoranthrene	0.70	ND	0.0038
Bis(2-	0.86	ND	0.114
Carbon disulfide	0.057	ND	3.80
Chrysene	1.90	ND	0.059
Fluoranthene	2.30	ND	0.068
Fluorene	1.60	ND	0.059
Hexachlorobenzene	0.70	ND	0.00822
Methylnaphthalene 2-	0.830	ND	0.059
Naphthalene	3.40	ND	0.059
Phenanthrene	18.0	ND	0.059
Phenol	1.20	ND	0.039
Pyrene	3.90	ND	0.067
Styrene	0.31	ND	1.90
Toluene	0.078	ND	0.08

¹ These levels represent the highest concentration of each constituent found in any one sample. These levels do not necessarily represent the specific levels found in one sample.

ND Denotes that the constituent was not detected.

E. How Did the EPA Evaluate the Risk of Delisting This Waste?

For this delisting determination, the EPA used such information gathered to identify plausible exposure routes (*i.e.*, ground water, surface water, air) for hazardous constituents present in the petitioned waste. The EPA determined that disposal in a Subtitle D landfill is the most reasonable, worst-case disposal scenario for the petitioned waste. The EPA applied the most recent version of the Delisting Risk Assessment Software (DRAS) described in 65 FR 58015 (September 27, 2000) and 65 FR 75637 (December 4, 2000), to predict the maximum allowable concentrations of hazardous constituents that may be released from the petitioned waste after disposal and determined the potential impact of the disposal of Teris' petitioned waste on human health and the environment. A copy of this software can be found on the World Wide Web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-o/dras.htm.

In assessing potential risks to ground water, the EPA used the maximum estimated waste volumes and the maximum reported extract concentrations as inputs to the DRAS program to estimate the constituent concentrations in the ground water at a hypothetical receptor well down gradient from the disposal site. Using the risk level (carcinogenic risk of 10⁻⁵ and non-cancer hazard index of 1.0), the DRAS program can back-calculate the acceptable receptor well concentrations (referred to as compliance point concentrations) using standard risk assessment algorithms and the EPA's health-based numbers. Using

the maximum compliance point concentrations and the EPA Composite Model for Leachate Migration with Transformation Products (EPACMTP) fate and transport modeling factors, the DRAS further back-calculates the maximum permissible waste constituent concentrations not expected to exceed the compliance point concentrations in groundwater.

The EPA believes that the EPACMTP fate and transport model represents a reasonable worst case scenario for possible ground water contamination resulting from disposal of the petitioned waste in a landfill, and that a reasonable worst case scenario is appropriate when evaluating whether a waste should be relieved of the protective management constraints of RCRA Subtitle C. The use of some reasonable worst-case scenarios results in conservative values for the compliance-point concentrations and ensures that the waste, once removed from hazardous waste regulation, will not pose a significant threat to human health or the environment.

The DRAS also uses the maximum estimated waste volumes and the maximum reported total concentrations to predict possible risks associated with releases of waste constituents through surface pathways (*e.g.*, volatilization or wind-blown particulate from the landfill). As in the above ground water analyses, the DRAS uses the risk level, the health-based data and standard risk assessment and exposure algorithms to predict maximum compliance point concentrations of waste constituents at a hypothetical point of exposure. Using fate and transport equations, the DRAS uses the maximum compliance point

concentrations and back-calculates the maximum allowable waste constituent concentrations (or "delisting levels").

In most cases, because a delisted waste is no longer subject to hazardous waste control, the EPA is generally unable to predict, and does not presently control, how a petitioner will manage a waste after delisting. Therefore, the EPA currently believes that it is inappropriate to consider extensive site-specific factors when applying the fate and transport model. The EPA does control the type of unit where the waste is disposed. The waste must be disposed in the type of unit the fate and transport model evaluates.

The EPA also considers the applicability of ground water monitoring data during the evaluation of delisting petitions. In this case, Teris has directly disposed of this material in commercial hazardous waste landfills located at other facilities. Since the Teris waste is commingled with other wastes in these landfills, no representative ground water monitoring data specific to the Teris incinerator ash exists. Therefore, the EPA has determined that it would be unnecessary to request ground water monitoring data.

The EPA believes that the descriptions made by Teris of the hazardous waste process and analytical characterization provide a reasonable basis to conclude that the likelihood of migration of hazardous constituents from the petitioned waste will be substantially reduced so that short-term and long-term threats to human health and the environment are adequately minimized.