

demonstrated that the incinerator offgas treatment scrubber water is non-hazardous.

TABLE I.—MAXIMUM TCLP CONSTITUENT CONCENTRATIONS AND MAXIMUM ALLOWABLE DELISTING CONCENTRATION OF THE INCINERATOR OFFGAS TREATMENT SCRUBBER WATER AT THE OXYVINYLS L.P. DEER PARK VCM PLANT¹

Constituent	TCLP constituent analyses (mg/l)	Maximum allowable delisting concentration levels (mg/l)
Antimony	0.00586	0.0204
Arsenic	0.02	² 0.385
Barium	0.291	2.92
Beryllium	0.00279	0.166
Cadmium	0.00112	0.0225
Chromium	0.0823	5.0
Cobalt	0.00543	13.14
Copper	0.0636	418.00
Lead	0.011	5.00
Nickel	0.0437	1.13
Mercury	0.00038	0.0111
Vanadium	0.0222	0.838
Zinc	0.0798	2.61
Acetone	0.03	1.46
Bromoform	0.016	0.481
Bromomethane	0.0017	8.20
Bromodichloromethane	0.012	0.0719
Chloroform	0.0051	0.683
Dibromochloromethane	0.013	0.057
Iodomethane	0.001	0.19
Methylene Chloride	0.0014	0.029
2,3,7,8-TCDD Equivalent	0.00000302	0.0000926

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.

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.*, groundwater, surface water, air) for hazardous constituents present in the petitioned waste. The EPA determined that disposal in a Subtitle D surface impoundment is the most reasonable, worst-case disposal scenario for OxyVinyls' 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 OxyVinyls' 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 groundwater, 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 groundwater 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 0.1), 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 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 groundwater contamination resulting from disposal of the petitioned waste in a surface impoundment, 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 resulted 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 surface impoundment). As in the above groundwater 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