Proceedings of the Environmental Protection Agency
PUBLIC MEETING ON WASTE LEACHING
Session I - Introduction and Overview

Stakeholder Perspectives on Leaching Problem

Scott Marris, from EQ Inc. (a waste treatment and disposal firm that deals with the TCLP on a daily basis for waste identification and verification under the Land Disposal Restrictions. program) stated that the TCLP is generally a good predictor of leachability, and acknowledged that, while it is difficult to develop a "one size fits all" test, it is important that the Agency retain the concept of a test that is simple and inexpensive. He also believes that it is important that the Agency maintain the concept of having to only run one test rather than conducting multiple leaching tests on a particular sample, noting that multiple tests/samples are a problem for private industry because of elapsed time while waiting for test results, as well as testing costs.

Mr. Marris said that is critical that industry can get results as quickly as possible due to the economic consequences of having to hold off on management decisions pending test results. He suggested that EPA should consider adding additional compounds, and suggested the TRI list as a source of those additional compounds.

During the question and answer period at the end of the session, participants asked questions of the morning's speakers.

David Friedman, EPA/ORD, asked about the size of the treatment batches and the variability of the testing results. Scott Marris responded, noting that, although different companies treat different size batches, his company treats 200 cubic yard batches. Within a particular waste stream there can be some variability, although pH does not vary too much between batches. His company will not accept a batch for treatment unless it meets their requirements.

Trish Erickson, EPA, asked if a single test procedure would be defined as a single test with a variety of leaching fluids, either on the waste coming in, or in post-disposal. Scott Marris responded that he believed that approach would work, although the practicality of testing post-disposal is questionable. The TCLP already has a break-point for waste pH, for example, if the pH is less than 5 you would use the acetate buffer and if it is greater than 5 use the acetic acid leaching fluid. The problems have been found in higher pHs and perhaps we do need another leaching fluid. Perhaps a buffer or neutral pH or one that more closely matches the average rainfall pH for that specific region of the country. He stated that the pH might depend on the actual landfill to which the material was shipped and that those facilities may already have such information available.

Harley Hopkins, American Petroleum Institute (API) commented on the effect that leachability might have on groundwater, saying that API would like to maintain a simple test and the flexibility to apply knowledge about the waste to get an estimate of the leachability and fate transport of these materials.

Judy Kleiman, EPA Region 5, asked about the pH range of waste leachate at treatment and disposal facilities. Scott Marris responded that the pH at his facility is alkaline, but certainly less than 12.

David Kosson, Rutgers University, asked if there had been a systematic comparison between the TCLP results of the materials going into the landfill and the quality of the leachate that you are observing across the large number of sites? Scott Marris responded that he did not know of such a comparison.

David Sussman, Poubelle Associates, commented that, when the hazardous waste regulations first came out, there was the EP Tox test that caused chaos across the land, and when the TCLP test came out for characterizing all waste, it also caused chaos across the land. But, now 10 years later into the TCLP, he did not believe that any changes in testing procedures will cause chaos. He suggested that a "one size fits all" approach will not work, that instead, we need to have leaching tests that match the materials, the leaching scenario, the management scenario, and every thing else. He went on to say that he hoped that the basic TCLP is not drastically changed and that EPA can come up with leaching procedures for all of the other scenarios.

David Hassett, University of North Dakota, commented that he was concerned about the idea of measuring the pH of the leaching fluid after the test and relating that to a starting pH of the leaching fluid. He believes that the pH of the leaching fluid is usually controlled by the waste itself, and in particular, a highly alkaline leachate is not the result of starting with an alkaline leaching fluid, but rather, having an alkaline waste through which the leaching fluid passes. His concern is in how one could simulate the actual conditions in a landfill in a revised testing procedure. He was specifically concerned about *starting* with an alkaline leaching fluid as a means of modeling the alkaline leachates that have been observed for some wastes.

Hans van der Sloot, Netherlands Environmental Research Foundation (NERF), asked why the target analyte list in the TCLP had been limited to the current list, noting that the European list is much longer. Mr. Marris responded that the list was based on the EP Tox. He said that the individual analytes were chosen because at the time the list was developed, they were the only elements for which the EPA had data and toxicity numbers, noting that the TCLP was developed from drinking water standards. Mr. Marris agreed that the EPA could look into expanding the list of constituents in the TCLP.

Garry Haworth, New Hampshire Dept of Environmental Services commented that multiple leachates for multiple uses would require multiple testing and certification, and if the Agency focuses on the extractant, it still leads to multiple methods.

A participant asked how the science advisory board deals with uncertainty in the TCLP, and is there a maximum level of uncertainty? Dr. Murarka responded, noting that the SAB does not tell the EPA what level of uncertainty to chose to base their policies on, and that there are a number of ways uncertainties and inaccuracies occur and are calculated.