

US EPA ARCHIVE DOCUMENT

On May 25, 1999, EPA published a notice in the Federal Register (64 Fed. Reg. 28173) announcing a public meeting on the Toxicity Characteristic Leaching Procedure (TCLP), and soliciting written comments on the issues discussed at the meeting. The six comments received are abstracted here.

The National Mining Association (NMA) submitted comments that expressed their concern on a number of issues:

1. At the public meeting on the TCLP, Agency staff referred to a 5-year time frame for developing and implementing any changes to the TCLP, and hinted at funding and staffing concerns. Now is not too soon for EPA to adopt leaching test procedures that are more appropriate than the TCLP
2. The Science Advisory Board (SAB) has observed the TCLP is applied too broadly, and can be improved by accounting for additional parameters. This position has been substantiated in several recent court decisions (enumerated and discussed in the comment). EPA's application of the TCLP to mineral processing wastes is contrary to the position taken by the SAB and the courts.
3. The TCLP (and its predecessor, the EP Tox) fail to simulate the conditions created by disposal of mining and mineral processing wastes.
4. The TCLP's "reasonable worst case scenario" of wastes being disposed of in a municipal solid waste landfill are inappropriate for mining and mineral processing wastes.
5. The use of an organic acid (acetic acid) as a leachant is inappropriate for mining and mineral processing wastes. Organic acids can cause atypical mobilization of metals from this industry's wastes, which are not normally subjected to leaching with organic acids.
6. The size reduction requirement of the TCLP is not representative of actual waste management conditions in the mining and mineral processing industry.
7. The dilution and attenuation factors (DAFs) in the TC models do not consider the degree of dilution and attenuation likely to occur between mining and mineral processing wastes and drinking water wells.

The NMA urges EPA to replace the TCLP with a modified Synthetic Precipitation Leachate Procedure (SPLP). The suggested modifications are described in the comment.

The University of North Dakota, Energy & Environmental Research Center proposed alternate leaching tests (Synthetic Groundwater Leaching Procedure, or SGLP, and Long-Term Leaching procedure, or LTL) be used to determine the leachability of constituents from combustion residues, and for any wastes likely to undergo hydration reactions upon contact with water. The commenter contended that the TCLP may lead to false prediction of leaching trends because the acidic conditions specified in the test may not be representative of real-world conditions, and that the specified testing time period of the TCLP may not be sufficient to reach equilibrium. The commenter believes that these flaws are corrected in the two proposed alternate test procedures when applied to combustion residues and hydratable wastes.

Elementis Chromium commented that they believe that only the hexavalent form of chromium

should be considered in the classification of waste as hazardous. They stated that, under environmental conditions, chromium metal is essentially inert, and that trivalent chromium has low mobility and low toxicity. They contend that problems associated with chromium in the environment are invariably associated with hexavalent chromium, and they urge EPA to recognize the differences in oxidation states in any changes to the TCLP.

The Utility Solid Waste Activities Group (USWAG) provided comment on 4 themes that they believe must be considered by the Agency while considering development of new leach testing protocols:

8. because a new test protocol may result in waste streams being classified as hazardous when they are not currently classified as hazardous, regulatory protections should be provided for companies that made waste treatment and disposal decisions that were appropriate under the TCLP
9. care must be taken to avoid undermining the confidence in the regulatory system stemming from excessive criticism of the TCLP
10. replacement test protocols must consider the specific end-use of the data, and
11. EPA must maintain engagement with the regulated community throughout the test protocol development process.

The Western Research Institute requested more guidance and information on how to achieve the requirement in the TCLP to collect and store samples in a manner to prevent the loss of volatile constituents. ASTM Guide D 4547 (Standard Guide for Sampling Waste and Soils for Volatile Organic Compounds), and ASTM Practice D 6418 (Standard Practice for Using the Disposable EnCore Sampler for Sampling and Storing Soil for Volatile Organic Analysis), were suggested as sources of such guidance and information.

The Lead Industries Association, Inc. (LIA), reiterated their position that the TCLP tends to “overpredict” hazard, particularly for metals. This position was originally stated 5 years ago, when LIA petitioned the Agency to exempt lead-stabilized PVC from hazardous waste regulation. The petition was based on data indicating that lead does not leach from these materials in a landfill setting, even though the results of testing by the TCLP indicates that the waste must be disposed of as a hazardous waste. In the long-term, LIA urges EPA to develop new waste leaching procedures on an expedited schedule. In the short-term, LIA urges EPA to alleviate the situation by substituting the Synthetic Precipitation Leachate Procedure (SPLP), modified to eliminate the size reduction requirement and reinstitute the Structural Integrity Program, for the TCLP for predicting hazard from lead.