



LONG TERM STABILITY TESTING OF TDJ CHEMISTRIES

Rather than reviewing testing data that TDJ developed on its own, please allow us to illustrate what various Federal agencies objectively conclude about TDJ chemistries through independently funded research. This testing used the Multiple Extraction Procedure (MEP), which is the protocol selected by EPA to measure long-term stability of wastes.

EPA INDEPENDENT STUDY

The EPA independently funded and supervised research on TDJ chemistries using the MEP protocol and the complete details are published in TDJ Sales Bulletin-007. In the second paragraph of this Bulletin, it is discussed why the MEP is used for long-term stability testing. Specifically, the MEP was used to determine if TDJ's chemistries actually treat a waste or simply add a pH buffer to neutralize the acid in a leach test. After 240 hours of acid leaching, the MEP test proved that TDJ chemistries stabilized the waste and provided "*long-term immobilization and durability*". This proved that the stabilization mechanisms of TDJ chemistries properly immobilize heavy metals and do not merely act as buffering agents.

FEDERAL HIGHWAY ADMINISTRATION (FHWA) INDEPENDENT STUDY

In another independently funded effort, the Federal Highway Administration / US DOT (1994) commissioned a hazardous waste treatment and disposal study that scrutinized TDJ chemistries. FHWA used the MEP test as an evaluation tool, and they compared untreated, lead-contaminated waste dusts against the same wastes treated with our chemistry. The results (copies available upon request) show "*stabilization was very effective*" using the MEP, which validates other independent evaluations.

US DEPARTMENT OF DEFENSE (DOD) INDEPENDENT STUDY

Under research commissioned through the US Army Construction Engineering Research lab (CERL), the DOD subjected TDJ chemistries to a comprehensive set of tests, including the MEP. The DOD observed that heavy metal-contaminated wastes treated with TDJ chemistries successfully passed MEP testing, and they concluded that "*there is no laboratory evidence of problems associated with their long-term stability*". This work was reaffirmed by the research performed by EPA and FHWA. The CERL work was nominated for the Construction Engineering Research Foundation Charles F. Pankow Engineering Innovation Award in 1999.

FIELD RESULTS

More than 1,000,000 tons of formerly hazardous waste have been successfully treated and disposed utilizing TDJ products in multiple countries over the last quarter of a century. To date, there have been no reported leaching problems with those materials at any domestic or international disposal facility.