

Phase 4 Land Disposal Restrictions

On May 26th, 1998, the US EPA released the long awaited Phase Four Land Disposal Restrictions final rule. In those new regulations, there are several components that will directly affect abrasive waste disposal: implementation of new hazardous waste universal treatment standards (UTS) and a prohibition of the use of iron or steel dust as a lead waste treatment agent.

NEW UTS STANDARDS

The UTS standards require any waste that fails the TCLP test to be classified as a hazardous waste, and require additional treatment of as many as thirteen metals and a host of organic compounds to a set of new, substantially more aggressive standards. Prior to 1995, abrasive blasting wastes that exceeded set TCLP limits for the RCRA eight heavy metals were classified as a hazardous waste, requiring permitted facilities that receive those wastes to treat only those metals exceeding the TCLP limit (5.0 mg/l for Pb) to below that limit prior to land disposal. No additional treatment was necessary. Under the new rule, once a waste tests hazardous for one metal, that metal plus all other appropriate metals have to be treated to the UTS standards, rather than just below current TCLP limits. **These UTS standards are approximately 10 times lower than the TCLP limit.**

IMPERMISSIBLE DILUTION

The EPA also addressed the issue of lead (D008) waste treatment using iron dust. This process was first discussed in the 1985, where it was offered as an inexpensive alternative to hazardous waste disposal. Due to extensive research by EPA, industry and the scientific community, it was determined that the stabilization chemistry of this process was indeed temporary. The interaction of unoxidized iron or steel dust with lead allows a D008 waste to pass TCLP, allowing classification as a non-hazardous waste. However, once the iron oxidizes, the formerly "stabilized" waste could become hazardous again. Since oxidation may be likely in a disposal environment, the Agency has concluded that the "treatment" is reversible. As such, the addition of iron fines does not represent a stable, safe or acceptable form of treatment, and EPA has concluded that the addition of iron for treatment constitutes "impermissible dilution."

Additionally, the EPA also extended the ban to include monofilling of iron treated wastes. By this ruling, the EPA has banned these practices, effective August 24, 1998.