

Lead-Based Paint On Civil Works Structures

Stabilization of Abrasive Blast Wastes

The Paint Technology Center has completed an in-depth study of engineered abrasives which chemically stabilize abrasive blast wastes. When the engineered abrasive is properly used, the waste will not be classified as a hazardous waste for lead under RCRA. After extensive laboratory analysis, the engineered abrasive was used to remove lead-based paint from wood and steel structures at five Army installations.



One of the engineered abrasives evaluated contained the additive Blastox(R), a product of the TDJ Group, Inc. in Cary, Illinois. When used to remove paint from wood structures, a minimum of 25 weight percent Blastox(R) is recommended to be used. When used to remove paint from steel structures, 20 weight percent should be sufficient.

Additional information on the engineered abrasives is available in the USACERL Technical Report "Demonstration of Lead-Based Paint Removal and Chemical Stabilization Using Blastox(R)", FEAP TR [96/20](#), October 1996, and the USACERL Technical Report "Modified Abrasive Blast/Chemical Stabilizer Admixtures for Deleading Immersed Steel Structures Coated with Lead-Based Paint", USACERL TR-[98/10](#), November 1997.

Wet Abrasive Blasting of Steel

The Paint Technology Center completed a study which compared traditional dry abrasive blasting with a wet abrasive blast system. The Torbo(R) system is the product of Keizer Technologies Americas, Inc., Euless, TX. The system combines 80% conventional blasting abrasives with 20% water. This process results in reduced abrasive consumption and dust emissions. The study was conducted under funding from the Construction Productivity Advancement Research (CPAR) program. Field demonstrations were conducted at the Corps of Engineers, Portland District, Dexter Dam site, Tainter Gate No. 1 located near Dexter, Oregon.

In the study the Torbo(R) system was paired with a series of traditional blast abrasives modified with Blastox(R). Further information is found in the Technical Report "Modified Abrasive Blast/Chemical Stabilizer Admixtures for Deleading Immersed Steel Structures Coated with Lead-Based Paint", USACERL TR-[98/10](#), November 1997.