

## PROPER SAMPLING OF SPENT ABRASIVES

Proper sampling and administration of correct TCLP testing procedures (reviewed in Technical Bulletin TB-002) are vital to accurate determination of the characteristics (hazardous versus non-hazardous) of spent abrasives. When either one of these two activities are improperly administered, valuable time and resources may be wasted by contractors, generators and consultants. The bottom line is that sampling and testing errors result in additional, unnecessary costs to everyone involved.

EPA manual SW-846 and ASTM\* standard D75 address proper ways of conducting sampling activities, but lead abatement workers may not have these documents or find them to difficult to interpret. This bulletin intends to assist you in learning a sound approach to obtain representative samples.

For a given project, several smaller samples should be randomly pulled from various areas of the waste pile; this includes top-to-bottom level sampling. Samples should not be pulled from tops of piles, as segregation of varying particle sizes may affect the uniformity of any given sample. Rather, it is important to dig down into the spent abrasive pile with a tool, such as a small garden hand shovel or a core sampler, and obtain samples. Depending on the size of the waste pile, we suggest eight (8) to ten (10) smaller samples be obtained.

These smaller samples should be combined into a larger pile and subsequently split with a mechanical splitter or placed in a rounded pile and split with a shovel into four sections. From these procedures, you will obtain four (4) large samples of at least 500 grams. EPA requires no less than four (4) samples be tested for a given project, and more if the variability of the results are high. Each of these four (4) large samples should be split into two (2) smaller samples. One split from each of the four (4) samples should be sent to a lab for TCLP testing and the other four splits should be kept separate and retained by the responsible party in the event further testing is necessary. Samples sent to lab should be approximately 250 grams each, or a one quart baggie filled one-half full.

If these procedures are followed, representative samples should be obtained and any subsequent testing of the samples at qualified laboratories should be valid. For further assistance, please contact Technical Support Manager, The TDJ Group, Inc.

\*Copies of ASTM standard C-702-87, "Reducing Field Samples of Aggregate to Testing Size", i.e., splitting of samples and D 75-87, "Sampling Aggregates", can be obtained by calling the American Society for Testing and Materials office at 610-832-9500 in West Conshohocken, PA. (TB-001)