

PROPER SAMPLING OF BAG HOUSE DUST

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 a waste stream. When either one of these two activities are done improperly, valuable time and resources may be wasted by the foundry. The bottom line is that sampling and testing errors result in additional, unnecessary costs to everyone involved.

EPA manual SW-846 Chapter 9 addresses proper ways of conducting sampling activities, but this document may be unavailable or difficult to interpret. This bulletin intends to assist you in learning a sound approach to obtain representative samples.

For a given waste, several smaller samples should be randomly pulled from various areas of the waste pile. This includes top-to-bottom level sampling, and the use of a grid and a statistical random number table may be useful. It is important to dig down into the waste 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 waste pile, 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, for a total of eight. 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. The samples should be properly sealed and clearly marked with an identification code per the laboratory's specific instructions.

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.