

PPC 9441.1992(22)

REGULATIONS FOR DISPOSAL OF CERAMIC MATERIALS

United States Environmental Protection Agency

July 21, 1992

Ms. L.T. Kelly
Ceram Research
Queens Road
Penkhull
Stoke-on-Trent, England
ST47LQ

Dear Ms. Kelly:

This is in response to your telefax of June 8, 1992, regarding regulations for disposal of ceramic materials and content limits of substances used in ceramic tiles.

The U.S. EPA regulates disposal of these materials only if they meet the definition of a hazardous waste. For these types of materials, it is expected that the relevant hazardous waste test would be the Toxicity Characteristic, which defines wastes as hazardous based upon their ability to release various toxic materials, including toxic metals that may be present in the ceramic material and/or glazes or other coatings that may be present on discarded ceramic tiles (see footnote 1). The Toxicity Characteristic rule requires that a representative sample of waste be subjected to the Toxicity Characteristic Leaching Procedure (TCLP), a leaching test designed to predict the potential of toxic constituents in the waste to migrate into groundwater. The results of the TCLP are compared to concentration limits ("regulatory levels") for specified toxic constituents (e.g., 5.0 mg/l for lead). Should the TCLP result equal or exceed the limit for any of the constituents, the waste is defined as a hazardous waste. A copy of the TCLP method and the regulatory levels is enclosed for your reference.

If the waste is identified as a hazardous waste, it may be subject to the Land Disposal Restrictions regulations. These regulations require that the waste be treated to certain specifications prior to its disposal in a hazardous waste landfill.

If the material is identified as a hazardous waste, it would most likely be due to the fact that it contains lead, arsenic, chromium or some other hazardous metal at concentrations above the TC levels. Assuming that is the case, the waste would have to be treated to where it is no longer considered a hazardous waste (e.g., the metal concentrations are below the TC regulatory levels), before it would be allowed to be land disposed. The EPA regulations define land disposal to include surface impoundments, waste piles, injection wells, land treatment facilities, salt dome/salt bed formations, and underground mines and caves. The treatment technologies we have identified for this sort of waste include chemical stabilization and vitrification, depending on the metals identified in the waste.

I hope that this information answers your questions. Should you require any further information, please feel free to contact Dave Topping of the Characteristics Section at (202) 260-7737 [fax (202) 260-0225].

Sincerely,
Rick Brandes, Chief
Waste Identification Branch

Enclosure

1. The Toxicity Characteristic rule, promulgated in 1990, replaced the Extraction Procedure characteristic, which had been in effect since 1980. Among other things, the Toxicity Characteristic changed the leaching test used to characterize the waste.