



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

December 9, 2002

Ed Domanico, President
Hazardous Waste Handlers, Inc.
3200 S. Andrews Avenue
Suite 110
Ft. Lauderdale, FL 33316

Re: Management of Intentionally Crushed Mercury-Containing Lamps

Dear Mr. Domanico,

In recent months and on more than one occasion, we have been advised that some mercury-containing lamp crushing equipment ("bulb crusher") salespeople have told prospective Florida buyers that the "glass" resulting from the crushing of lamps with one of these devices can be disposed in a solid waste landfill. The purpose of this letter is to explain that Florida regulations governing the use of bulb crushers for fluorescent lamps do not allow such disposal. In addition, we are asking you to advise your Florida sales staff to clearly explain Florida requirements to prospective buyers. We are advising all known suppliers of bulb crushers about this situation and the relevant Florida regulatory requirements.

Mercury-containing lamps (spent lamps) may be crushed using a bulb crusher whether they are destined for recycling or destined for landfilling. While most bulb crushers that we are familiar with do have a filter system to capture mercury vapors released during lamp crushing operations, we are not aware of a bulb crusher that claims to (or actually does) separate all the mercury from the lamp via such a filter system. Therefore, the materials that are deposited into the drum or container from a bulb crusher contain a mixture of all the major components of a mercury-containing lamp, i.e., metal, glass, phosphor powder and mercury, not just "glass." This mixture of all major components of the lamp is called "crushed mercury-containing lamps" (or "crushed lamps") for the purposes of this letter.

Clarke to Domanico
December 9, 2002
Page 2 of 3

Crushed lamps destined for recycling are regulated under Chapter 62-737, Florida Administrative Code (F.A.C.). Crushed lamps destined for landfilling are regulated under either federal hazardous waste regulations (Title 40 Code of Federal Regulations, Parts 260-268) that have been adopted by Florida (Chapter 62-730, F.A.C.); or state solid waste regulations (Chapter 62-701, F.A.C.), depending on whether the lamps are a hazardous waste or not. Since the purpose of this letter is to clarify the regulations governing the disposal of crushed lamps, we do not discuss the specific requirements governing the actual crushing operations.

Crushed lamps may be sent for recycling, i.e., separation of the glass, metal and phosphor powders and subsequent reclamation of mercury for recycling. If the crushed lamps are sent to a mercury recovery facility in Florida that is permitted under Chapter 62-737, F.A.C., a hazardous waste determination (40 CFR 262.11) is not required. If the crushed lamps are sent to a recycling facility in another state, that state may have other requirements, including a hazardous waste determination. Check with the state in which the recycling facility is located for applicable requirements.

If the crushed lamps are destined for landfill disposal, a hazardous waste determination is first required. The hazardous waste determination for mercury-containing lamps would typically require analysis of each and every drum or container of crushed lamps using the Toxicity Characteristic Leaching Procedure (TCLP). If the crushed lamps are a hazardous waste, i.e., the TCLP value for mercury is 0.2 milligrams/liter (mg/l) or greater, then the lamps must be sent to a landfill permitted to receive hazardous wastes. Be advised that there are no hazardous waste landfills in Florida. If the crushed lamps are not a hazardous waste, i.e., the TCLP value for mercury is less than 0.2 mg/l, then the lamps may be sent to a municipal solid waste landfill, if the county solid waste department and landfill operator agree to accept the crushed lamps. The crushed lamps may not, under any circumstances, be sent to unlined landfills such as a construction and demolition landfill (paragraph 403.7186(4)(a), Florida Statutes [F.S.]).

Crushed lamps may not be sent to a municipal solid waste combustor (incinerator) under any circumstances since that is prohibited by paragraph 403.7186(3), F.S.

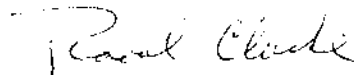
Clarke to Domanico
December 9, 2002
Page 3 of 3

Summary

The materials that result from crushing mercury-containing lamps using a bulb crusher are not just "glass" but are "crushed mercury-containing lamps" ("crushed lamps"), i.e., a mixture of all the major components, including mercury, of the mercury-containing lamps that have been crushed. Florida law prohibits the disposal of "crushed lamps" in municipal solid waste landfills unless TCLP testing for mercury on each drum or container shows that they are not hazardous wastes. Florida law also prohibits the disposal of "crushed lamps" in either an unlined landfill or a waste combustor (incinerator) under any circumstances. We are asking that your company ensure that distributors and salespeople for your equipment are accurately and completely communicating this to Florida customers.

If you have any questions, please contact Ms. Laurie Tenace at 850-487-4666 or laurie.tenace@dep.state.fl.us.

Sincerely,



Raoul Clarke, Administrator
Hazardous Waste Management Section

cc: DEP District Waste Program Administrators
Satish Kastury, Hazardous Waste Regulation
Chris McGuire, Office of General Counsel
Augusta Posner, Office of General Counsel