

MEMORANDUM

TO: John F. Wardell, Director
Montana Office
EPA Region VIII

FROM: Elizabeth Cotsworth
Acting Director
Office of Solid Waste

SUBJECT: Regulatory Status of Used Crucibles and Cupels

This memorandum is in response to your memorandum dated June 9, 1998 regarding the regulatory status under the Resource Conservation and Recovery Act (RCRA) of spent cupels and crucibles from commercial laboratory metal assays. You referred to an earlier memorandum (dated June 17, 1991) from Mr. Robert Duprey, then Director of the Hazardous Waste Management Division (Region VIII) to Ms. Sylvia Lowrance, then Director of the Office of Solid Waste (OSW) and Ms. Lisa Friedman, Associate General Counsel for Solid Waste and Emergency Response. In that memorandum, Mr. Robert Duprey requested that OSW provide a regulatory interpretation of the status of the above-mentioned materials, as well as assay slag. It is my understanding that OSW informed Mr. Duprey at that time that EPA Headquarters would prefer not to make the requested regulatory determinations pending finalization of a planned rulemaking which could have affected the recycling of metal-bearing materials.

On March 2, 1990, EPA clarified the Bevill status of laboratory cupels and crucibles in a letter to Mr. Daniel Gross of the Nevada Division of Environmental Protection (see attachment). In that letter, the Agency indicated that laboratory wastes are not uniquely associated with mining and thus are not exempt from RCRA Subtitle C

RO 14332

requirements under the Bevill exclusion (40 CFR 261.4(b)(7)). The Agency restated this position in its Phase IV Land Disposal Restrictions (LDR) rulemaking (see 63 FR 28556, May 26, 1998). Therefore, these materials are generally considered solid wastes under RCRA. However, you requested further clarification as to whether cupels and crucibles are by-products or spent materials when recycled. We understand from phone conversations with Ms. Susan Zazzali of your staff that you are no longer

-2-

requesting a regulatory interpretation for assay slag. You have also stated that cupels are being stored in Region VIII in a manner that would allow releases to the environment.

According to the procedures described in the memorandum of June 17, 1991, crucibles and cupels are vessels used to assay precious metals. During the assays, both kinds of vessels absorb significant quantities of lead, which is contained in a flux material. Both crucibles and cupels must eventually be discarded because of contamination. Lead may be reclaimed from both materials in lead smelters. From this description, it appears that both the used crucibles and used cupels meet the RCRA definition of spent materials at 40 CFR 261.1(c)(1) (any material that has been used, and as a result of contamination, can no longer serve the purpose for which it was produced without processing). Although the RCRA regulations provide that by-products that are hazardous only because of the presence of a hazardous characteristic are not solid wastes when reclaimed, spent materials are solid wastes when reclaimed (see 40 CFR 261.2(c)(3)). Thus, spent crucibles and cupels would be solid wastes if they are reclaimed.

It also appears that the spent crucibles and cupels (if reclaimed) would not be eligible for exclusion from classification as a solid waste pursuant to 40 CFR 261.2(e)(i) (use or reuse as ingredients in an industrial process to make a product) because that provision specifically provides that the materials must not be reclaimed. The regulations (at 40 CFR 261.1(c)(5)(i)) specifically state that a material is not considered "used or reused" if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials).

Finally, if the cupels and crucibles that are reclaimed fail the toxicity characteristic leaching procedure (TCLP) for lead, they are hazardous wastes as well as solid wastes and fully regulated under RCRA.

I hope this memorandum addresses your concerns. If you have any further questions, please have your staff contact Marilyn Goode, of my staff, at 703-308-8800.

RO 14332