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HAZARDOUS WASTE TESTING ISSUES

United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response

January 18, 1993

Mssrs. J.L. Broadhurst and M.W. Godfrey
General Mining, Metals and Mineral Limited
Process Research
200 Hans Strijdom Drive, Randburg
Private Bag X10014, Randburg 2125
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Dear Sirs,

I have received your letter of 22 December 1992, requesting additional information on three hazardous waste testing issues, and am pleased to be of service. In your first question, you noted that some people believe that atmospheric oxidation of Cr(III) to Cr(VI) in a landfill containment may pose a risk to the environment. The Agency does not have any data which suggest that Cr(III) will oxidize to Cr(VI) in a landfill, and that if managed properly, the wastes indicated in Part 261.4(b)(6)(i)(A) will not pose a threat to human health and the environment. The Agency will, however, be pleased to receive and review any such data which you forward to use.

In your second question, you expressed concern that the TCLP is not a realistic indication of the long-term stability/mobility of elements in solid wastes, and requested additional information on the choice of experimental conditions used in the text. The TCLP was developed to model leachability of hazardous constituents in a specific waste management scenario, e.g., co-disposal of solid waste with municipal waste in a sanitary landfill. The test is not expected to model other waste management conditions. Data from the test are useful for comparison against toxicity standards, or against other TCLP data sets, only when the single specified set of experimental conditions are used. I am including with this letter (as Attachment 1) additional information that discusses the rationale and process for selection of experimental conditions.

Finally, in your third question, you asked which analytical methods should be used to determine the concentrations of total cyanide and cyanide amenable to chlorination. I have enclosed the appropriate methods (Methods 9101 and 9012 from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) to this letter as Attachment 2.

If I may be of further assistance, please do not hesitate to contact me.

Sincerely,
Ollie Fordham
National Inorganics Program Manager, RCRA