

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Dr. Edwin K.H. Lui
Environmental Protection Officer
Solid Waste Control Group
Hong Kong Government
Environmental Protection Department
Headquarters
28th Floor, Southorn Centre
130 Hennessy Road
Wan Chai, Hong Kong

On June 21, 1991 you sent a letter to Dr. Timothy Oppelt of our Cincinnati, Ohio EPA Regional Office requesting information regarding certain heavy metals other than those included in the Toxicity Characteristic (TC) rule.

The Office of Solid Waste, Characterization and Assessment Division is responsible for the development, promulgation, and implementation of the TC rule; therefore, Dr. Oppelt felt it would be more appropriate that our Office respond to your specific concerns. This letter responds to your questions regarding the applicability of the TC rule to certain heavy metal constituents.

In your first question you asked why heavy metals, such as Cu, Zn, Ni, V, Sn, & Sb, are not included as regulatory constituents? As part of the decision-making process for determining which constituents would be regulated under the TC rule, the Agency used two major criteria. These are the availability of health effects data and fate and transport data that would allow modeling of these constituents in the environment.

To date, EPA does not have firm health effects data for the heavy metals you mentioned. More specifically, the Agency has not yet established Maximum Contaminant Levels for these constituents. As to the fate and transport of these constituents, our current model does not fully account for the behavior of metals in the environment. We are working on modifications to the model to allow it to accommodate metals. We may add the above-specified metals when these two criteria are satisfied.

In your second question you asked whether a sample containing high concentrations of such heavy metals (e.g., 1000 ppm) would be considered a hazardous waste? Since these heavy metals are not included in the hazardous characteristics, their presence, even at high concentrations would not cause the waste to be a regulated hazardous waste, although such high concentrations may in fact pose a hazard. In addition, some such wastes are likely to be regulated hazardous waste by virtue of being specifically listed. For example, nickel has been a basis for listing some wastes when it occurs with

other heavy metals that are included on the characteristic list. However, none are listed due to the presence of those other metals alone.

I hope these responses are of assistance to you. If you have any further questions regarding this information or any other related TC rule questions, please contact David Topping of my staff at (202) 475-8551.

Sincerely yours,.

Steve Cochran, Chief
Characteristics Section
Office of Solid Waste

cc: Dr. Timothy Oppelt
Region V