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CHROMIUM WASTES: TRIVALENT AND HEXAVALENT, CHROMIUM IN
TANNERY WASTES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MAR 21 1986

Robert Winlow, Director
Prymont
110 Serpentine Road
Albany
Western Australia 6330
AUSTRALIA

Dear Mr. Winlow:

In response to your inquiry of March 4, 1986, the Environmental Protection Agency regulates wastes containing chromium, in part, by use of the Extraction Procedure Toxicity characteristic which does not differentiate between the tri-and hexavalent oxidation states, but rather regulates on the basis of total chromium.

As you are aware, EPA has proposed to change the regulation to classify only hexavalent chromium wastes as hazardous. However, preliminary studies by Dr. Clifford, of the University of Houston, indicated that, under conditions prevalent during drinking water disinfection using chlorine, oxidation of the trivalent chromium might occur. Since chlorine disinfection is a popular method of ground water treatment in the United States, EPA decided not to finalize the change pending further study.

Our research laboratory in Cincinnati, Ohio, has the responsibility for determining the conditions under which trivalent chromium will undergo conversion to the hexavalent form; Mr. Thomas Sorg leads this activity. I have sent him a copy of your letter and requested he contact you directly once he has completed his studies.

However, with respect to regulation of tannery wastes, EPA continues to exempt from regulation as hazardous waste those tannery wastes which are hazardous solely be reason of trivalent chromium. EPA expects to continue this exemption until the

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chromium toxicity and environmental behavior questions have been resolved.

One final point relative to the paragraph on page 72031 in the October 30, 1980 Federal Register, the Extraction Procedure toxicity Characteristic regulatory thresholds are 100 times the corresponding drinking water standard. Thus, since the drinking water standard for chromium is 0.05 mg/1, the EP level is set at 5.0 mg/1.

Sincerely,

Eileen B. Claussen
Director
Characterization and Assessment Division

cc: Marcia Williams
Alan Corson
Kenneth Shuster

Thomas Sorg
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