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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

MAR 10 1997

Mr. Steve M. Alexander
Perimeter Area Section Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West 4th Avenue
Kennewick, Washington 99336-6018



Dear Mr. Alexander:

DESIGNATION OF MATERIAL REMOVED FROM THE 202-S/REDOX FACILITY

- References: 1) Letter, P. Svoboda, State of Washington Department of Ecology, to B. Ward, U.S. Department of Energy, Richland Operations Office, and R. G. Egge, Bechtel Hanford, Inc., "Dangerous Waste Compliance Investigation at 202-S/REDOX (WA7890008967) on March 20, 1996," dated June 4, 1996.
- 2) Letter, J. E. Rasmussen, U.S. Department of Energy, Richland Operations Office, to P. Svoboda, State of Washington Department of Ecology, "Dangerous Waste Compliance Investigation at 202-S/REDOX (WA7890008967) on March 20, 1996," dated July 3, 1996.

In Reference 1, the State of Washington Department of Ecology (Ecology) raised an issue regarding potential dangerous waste designation of material from an incident at the 202-S Building. In response, the U.S. Department of Energy, Richland Operations Office (RL) stated that the material would be analyzed for heavy metals, appropriately designated, and sent to an approved Hanford Site storage or disposal facility (see Reference 2). The purpose of this letter is to provide Ecology with the latest information on the status of this material.

The material, which consisted of a small "bead" of solid residue removed from the outside surface of a pipe flange, was subjected to chemical analysis during July 1996. Due to the small amount of material available, testing via the Toxicity Characteristic Leaching Procedure (TCLP) was not possible. Instead, analysis was done to determine the total amount of metals present. These results showed that chromium and cadmium may be present at levels which exceed TCLP designation limits. The total cadmium level was 30.2 mg/L, compared with an "adjusted" TCLP designated limit of 20 mg/L for total cadmium.¹ The total chromium level was 601 mg/L, compared with an adjusted TCLP designation limit of 100 mg/L for total chromium.

¹ - The "adjusted" TCLP limits are obtained by multiplying the actual TCLP limit by a factor of 20 to reflect the dilution realized from performing the TCLP test on a solid material. This approach assumes that metal constituents present would be 100 percent leachable, and hence results in a conservative designation. For further explanation, see: Memorandum, Vern Meinz (Ecology) to Laura Russell (Ecology), "TCLP Test," dated January 5, 1992.

Mr. Steve M. Alexander

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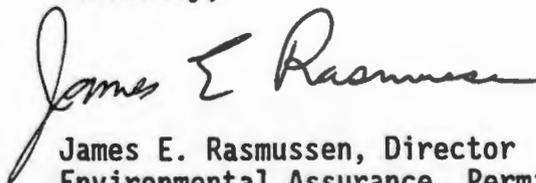
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Additional analysis showed a hexavalent chromium level of only 0.37 mg/L, indicating that the material might not actually exceed the "non-adjusted" TCLP limit of 5 mg/L for chromium since the remaining chromium is most likely present in a non-leachable form. Nevertheless, in the absence of actual TCLP data, RL has decided to conservatively designate the material based on the total chromium values. Thus, the material is assigned the dangerous waste codes of D007 (TCLP chromium) and D006 (TCLP cadmium).

The material is currently at the Hanford Transuranic Storage and Assay Facility awaiting assay to determine transuranic or low level waste status. The material is being managed as a mixed waste.

If you have any questions, please feel free to contact Mr. John Sands on 372-2282.

Sincerely,



James E. Rasmussen, Director
Environmental Assurance, Permits,
and Policy Division

DDP:JPS

cc: R. G. Egge, BHI
R. J. Landon, BHI
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