

January 02, 2004

Joseph D. Ziegler, Director
Office of License Application and Strategy
U.S. Department of Energy
Office of Civilian Radioactive Waste Management
Office of Repository Development
1551 Hillshire Drive
North Las Vegas, NV 89134-6321

SUBJECT: REQUEST FOR PENA BLANCA SAMPLE SPLITS

Dear Mr. Ziegler:

The U.S. Nuclear Regulatory Commission (NRC) staff is evaluating the U.S. Department of Energy (DOE) activities involving the use of natural analogues for the proposed repository at Yucca Mountain, Nevada. The Nopal I uranium ore deposit at Pena Blanca in Chihuahua Mexico has been identified as such an analogue. Last summer, DOE drilled this deposit to the saturated zone and collected core and cuttings. We sent staff from the Center for Nuclear Waste Regulatory Analyses (CNWRA) to observe the drilling and sampling. The CNWRA has studied this site for the past twelve years. The holes DOE drilled may provide important information concerning uranium mineralogy and radionuclide mobility below the portion of the ore deposit previously sampled and mapped by the CNWRA staff.

John Bradbury of my staff and David Pickett of the CNWRA have discussed the NRC/CNWRA interest in obtaining splits of the samples DOE collected with Eric Smistad on your staff. The types of samples we are interested in are:

- a) Representative samples in which uranium ore is visible or is likely to be present, based on gamma measurements (log or contact). Any occurrences of reduced uranium ore minerals (e.g., uraninite) would be of particular interest,
- b) Fracture filling materials from various levels, with more concentrated sampling in zones of gamma activity gradients,
- c) Matrix tuff and breccia, from same zones as fracture fillings,
- d) More concentrated sampling in any apparent high-gamma zones possibly associated with the water table (i.e., possibly from secondary accumulation), and
- e) Any occurrences of previously unidentified minerals.

J. Ziegler

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Mr. Smistad has informed us that the splits have already been tagged and bagged, and are being stored and awaiting shipment at the University of Chihuahua. I request that those splits be sent to the CNWRA for study. The address to which the samples can be sent is:

Dr. David Pickett
Center for Nuclear Waste Regulatory Analyses
Southwest Research Institute
6220 Culebra Road
San Antonio, Texas 78238-5166

If you have any questions please contact John Bradbury of my staff at 301-415-6597 or by email to jwb@nrc.gov. I appreciate your efforts in this matter.

Sincerely,

/RA/

Janet Schlueter, Chief
High-Level Waste Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

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OFC:	HLWB*		HLWB*		HLWB*		
NAME:	JBradbury		LCampbell		JSchlueter		
DATE:	12/31/03		12/31/03		1/2/04		

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Letter or Memorandum to J. Ziegler from J. Schlueter, dated: January 02, 2004

cc:

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E. von Tiesenhausen, Clark County, NV	M. Chu, DOE/Washington, D.C.
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R. Herbert, NV Congressional Delegation	N. Williams, BSC
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J. Pegues, City of Las Vegas, NV	J. Birchim, Yomba Shoshone Tribe
M. Murphy, Nye County, NV	R. Holden, NCAE

cc: (Continued)

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J. Bacoach, Big Pine Paiute Tribe of the Owens Valley

P. Thompson, Duckwater Shoshone Tribe

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G. Hernandez, Las Vegas Paiute Tribe

K. Finrock, NV Congressional Delegation

P. Johnson, Citizen Alert

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C. Meyers, Moapa Paiute Indian Tribe

R. Wilder, Fort Independence Indian Tribe

D. Vega, Bishop Paiute Indian Tribe

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J. Leeds, Las Vegas Indian Center

J. C. Saulque, Benton Paiute Indian Tribe

C. Bradley, Kaibab Band of Southern Paiutes

R. Joseph, Lone Pine Paiute-Shoshone Tribe

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E. Smith, Chemehuevi Indian Tribe

D. Buckner, Ely Shoshone Tribe

V. Guzman, Walker River Paiute

D. Eddy, Jr., Colorado River Indian Tribes

H. Jackson, Public Citizen

J. Wells, Western Shoshone National Council

D. Crawford, Inter-Tribal Council of NV

I. Zabarte, Western Shoshone National Council

NRC On-Site Representatives

S. Devlin

G. Hudlow