

Department of Energy

Washington, DC 20585

March 31, 1994

Mr. Joseph J. Holonich, Director Repository Licensing & Quality Assurance Project Directorate Division of High-Level Waste Management Office of Nuclear Material Safety and Safeguards U.S. Nuclear Regulatory Commission Washington, D.C. 20555

References: (1) Ltr, Barrett to Youngblood, dtd 1/26/94

(2) Ltr, Shelor to Holonich, dtd 11/30/93

Dear Mr. Holonich:

In our January 26, 1994, letter to you (Reference 1), the U.S. Department of Energy (DOE) described actions that were being taken to: (1) check information already sent to the U.S. Nuclear Regulatory Commission (NRC) to support the review of the subject topical report (Reference 2), and (2) collect additional information requested by NRC. The following information refers to Points 1 and 3 from Concern 2, Reliance Upon a Single Controversial Dating Method, in DOE's response to NRC's January 26, 1994, letter (Reference 1).

For Point 1, DOE has verified that there was an omission of information from the technical data package submittal (Reference 2). The Los Alamos National Laboratory (Los Alamos) investigator's data submittal (enclosure 1) for the rock varnish cation ratio (VCR) sample sites was not sent to NRC as part of Reference 2. In addition, some of the symbols used in the tabular data tables downloaded from our Technical Data Base (TDB) were not defined, which made it difficult to perform an independent calculation of the VCR mean values. The omitted data plus explanations are included in Enclosure 1, which includes all sample sites.

For Point 3, an additional data package submittal is enclosed (enclosure 2) to include all scanning electron microscope runs used to establish mean VCR values from the Red Cone and Black Cone calibration point locations. This submittal provides the same level of detail for these two calibration points as was provided for the other calibration points used to construct the VCR calibration curve in Figure 9 of the subject topical report. Enclosure 2 includes all sites used to construct the VCR calibration curve, including Red and Black Cones.

DOE has digitized the boulder field sample sites and calibration sites into our Geographic Information System (GIS). The Los Alamos investigator has verified these coordinates, and a tape file has been provided to the NRC On-Site Representative for uploading into NRC's GIS.

9404110193 940331 PDR WASTE WM-11 PDR 102.2/1' WM-11' NH03

With these submittals, the three commitments made in our January 26, 1994, letter to NRC are fulfilled. If you have any questions, please contact Chris Einberg of my staff at (202) 586-8869.

Sincerely,

Dwight E. Shelor Associate Director for 907 Systems and Compliance Office of Civilian Radioactive Waste Management

Enclosures:

GENISES Printout, VCR Sample Sites
GENISES Printout, VCR Calibration

Sites, Including Red and Black Cones

cc w/encls:

R. Nelson, YMPO

R. Loux, State of Nevada

W. Offutt, Nye County, NV

T. J. Hickey, Nevada Legislative Committee

D. Bechtel, Las Vegas, NV

Eureka County, NV Lander County, Battle Mountain, NV P. Niedzielski-Eichner, Nye County, NV

L. Bradshaw, Nye County, NV C. Schank, Churchill County, NV F. Mariani, White Pine County, NV

V. Poe, Mineral County, NV

J. Pitts, Lincoln County, NV J. Hayes, Esmeralda County, NV

B. Mettam, Inyo County, CA