



**Department of Energy**

Nevada Operations Office

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SEP 17 1987



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Washington, D.C. 20555

**RESPONSE TO THE NUCLEAR REGULATORY COMMISSION (NRC) OPEN (ACTION) ITEMS AND INFORMATION REQUESTS**

- References:
- (1) Letter, Linehan to Vieth, dtd. 10/31/86
  - (2) Letter, Coplan to Vieth, dtd. 4/14/83
  - (3) NRC-NNWSI Project Exploratory Shaft Design/Construction Meeting Summary, 8/27-28/85

Enclosed are several reports in response to NRC requests for the drilling history and results of geotechnical and other testing from the principal borehole G-4. References 1, 2, and 3 contain specific requests for this information. This transmittal is intended to satisfy information request (If) from Reference 2 and to close Open Item 20 from Reference 3.

Previously, the Nevada Nuclear Waste Storage Investigations (NNWSI) Project provided the NRC two reference documents to satisfy the request and to close the open item. These documents were USGS-OFR-84-789, "Stratigraphic and Structural Characteristics of Volcanic Rocks in Borehole USW G-4;" and SAND84-1101, "Uniaxial and Triaxial Compression Test Series on Topopah Spring Tuff from USW G-4, Yucca Mountain, Nevada." The former document provided the drilling history for the principal borehole, USW G-4 and the latter document provided the results of the uniaxial and triaxial compression experiments performed on samples from drill hole USW G-4. The NRC responded to the NNWSI Project proposal for closure by requesting additional information related to geotechnical testing performed on samples obtained from the principal drill-hole which had not been included in either of the two documents. The following reports are being transmitted to the NRC to provide this additional information.

1. SAND85-0762 - "Bulk, Thermal, and Mechanical Properties of the Topopah Spring Member of the Paintbrush Tuff, Yucca Mountain, Nevada"
2. USGS-OFR-84-552 - "Rock Property Measurements on Large-volume Core Samples from Yucca Mountain USW-GU-3/G-3 and USW G-4 boreholes, Nevada Test Site, Nevada"
3. SAND83-1711 - "Thermal Conductivity of Silicic Tuffs from Yucca Mountain and Rainier Mesa, Nye County, Nevada"
4. SAND84-1471 - "Fracture and Matrix Hydrologic Characteristics of Tuffaceous Materials from Yucca Mountain, Nye County, Nevada"

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Furthermore, several tests on samples from USW G-4 are listed in Sandia National Laboratories (SNL) NNWSI Project Data Catalogues, which are sent periodically to the NRC. The NRC may request copies of items in the SNL NNWSI Project Data Catalogues per the DOE/NRC Site Specific Agreement. The NRC is also on the SNL distribution list for all SAND reports published.

In view of the information provided previously and by this transmittal to the NRC, the access to the SNL NNWSI Project Data Catalogues, and the SAND report distribution, the NNWSI Project now considers Action Item 20 and Information Request (If) to be closed.

Please address questions on these topics to Larry P. Skousen (FTS 575-8929) at the Waste Management Project Office or David M. Dawson (FTS 575-8657) at Science Applications International Corporation.



Carl P. Gertz, Project Manager  
Waste Management Project Office

WMPO:LPS-2751

Enclosures:

1. SAND85-0762
2. USGS-OFR-84-552
3. SAND83-1711
4. SAND84-1471

cc w/encls:

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cc w/o encls:

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