



Department of Energy
Washington, DC 20585

MAY 6 1988

Mr. Robert Browning, Director
Division of High Level Waste Management
Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Browning:

The U.S. Geological Survey (USGS), Nuclear Waste Hydrology Branch, Reston, has provided comments on the Consultation Draft Site Characterization Plan for Yucca Mountain (CD/SCP), by letter from George Dinwiddie dated April 11, 1988 (enclosed).

The USGS transmittal letter describes the review team who prepared the comments. You should note that this team is independent of the USGS staff who are conducting aspects of the site characterization program at Yucca Mountain and are major contributors to certain parts of the CD/SCP.

The DOE has not yet made a thorough review of the USGS comments but, based on our initial review, it appears that their comments are covered in a broad sense by your draft point papers. That is, we have not identified any major new concerns in the USGS comments.

The USGS comments will be coded, tracked and dispositioned through DOE's existing SCP comment resolution process.

If you have any questions on the enclosure, please contact Ed Regnier, Acting Chief, Licensing Branch at 586-4590.

Ralph Stein
Acting Associate Director for Systems
Integration and Regulations
Office of Civilian Radioactive
Waste Management

Encl.: As stated

cc: C. Gertz, NNWSI
R. Loux, State of Nevada

8805180325 880506
PDR WASTE
WM-11 DCD

102.8
WM-11 NH03'



United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VA. 22092

In Reply Refer To:
WGS-Mail Stop 410

April 11, 1988

Mr. Ralph Stein, Director
Engineering & Geotechnology Division
Office of Civilian Radioactive Waste Management
Office of Geologic Repositories
U.S. Department of Energy, RW-23
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Mr. Stein:

This is to transmit comments derived from the U.S. Geological Survey's review of the Department of Energy's Consultation Draft of the Site Characterization Plan for the Yucca Mountain Site, Nevada. Many of the reviewers have commented that, overall, the technical breadth of the document is impressive.

A total of 29 scientists from both the Geologic and Water Resources Divisions were involved in the review. We made every effort to select the best qualified scientists available who were not directly involved with the project at this time. For the most part, these reviewers are specialized; their specialities were identified, and the reviewers were encouraged to keep their comments within their ranges of expertise.

A few general concerns were detected from the review comments, as follows:

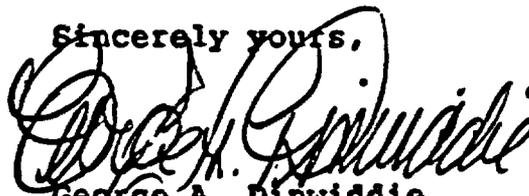
1. The implied premise that matrix flow is dominant in the unsaturated zone does not appear to be supported by the data currently available.
2. Although we understand why data and background information had to be cut off at a specific time, we point out recently acquired information that will be significant to future plans.
3. The SCP, in general, did not impart confidence that program elements were well integrated or coordinated. We believe the integration is necessary for a cohesive, complementary approach to achieve consistent, credible results in an effective manner.

Mr. Ralph Stein, Director

2

The review was conducted in two basic, independent parts by the two Divisions, and the comment document is presented in two parts, one by Geologic Division and the other by Water Resources Division, to maintain a degree of continuity within each. Lack of comment on some sections may reflect lack of time to examine such a complex document in detail, and the USGS may have additional concerns as the site characterization program proceeds. Like the preparation of the SCP itself, our compilation of comments and opinions from a large number of reviewers in a short time has probably resulted in redundancy at some places and inconsistency at others. It is our opinion, however, that this comment document represents a reasonable technical review of earth-science aspects of the SCP and, further, that several important concepts, ideas, and opinions are presented.

Sincerely yours,

A handwritten signature in black ink, appearing to read "George A. Dinwiddie". The signature is fluid and cursive, with the first name being particularly prominent.

George A. Dinwiddie
Chief, Branch of Nuclear
Waste Hydrology

Enclosures