UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

WM DOCKET CONTROL CENTER

August 19, 1986

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MEMORANDUM FOR: Dr. David Okrent, ACRS Member

FROM: Dr. Sidney J.S. Parry, ACRS Senior Fellow

SUBJECT: REPORT ON U.S.G.S. CORRESPONDENCE ON THE HANFORD SITE

The Waste Management Division staff has provided some additional pieces of correspondence from the U.S.G.S. and others on the Hanford site. I have assembled them in a package which is attached. There is also attached a tabulation of the individual items for the information of those copyholders who did not receive all the correspondence at this time. If anyone who did not receive the correspondence wants a set I'll be glad to provide it.

While there is almost certainly additional correspondence relating to the Hanford site from the U.S.G.S. and others, the attached items are quite uniform in their content and tone. It is apparent that the U.S.G.S. has consistently questioned the limited data available on the site's hydrology and that no major actions have been taken by BWIP to eliminate this deficiency, at least up to the late '85 time period. The response to Congressman Markey (July 26, 1985) is particularly interesting. The U.S.G.S. notes the limited data, the probable existence of vertical groundwater movement, high stress ratios and so forth, but adroitly sidesteps a definitive statement on the viability of the site from a mine safety viewpoint.

The tendency to sidestep questions about mining operations is continued in the workshop report dated December 12, 1985. In that document the practicality of excavating basalt under the expected conditions is not addressed. The principal emphasis is on testing procedures, interpretation of them and the necessity of obtaining at-depth data. The questions raised by Dr. White, which were not answered by the U.S.G.S. in their response to Congressman Markey, remain unanswered by this workshop.

I understand from John Greeves of the Waste Management Division that the staff has been troubled by these same questions that Dr. White and others have raised. The staff has the Bureau of Mines as a consultant and has had extended discussions with the BWIP project and DOE-HQ personnel. The result of these discussions is contained in Comments 6 and 7 of the NRC Staff's Comments on the Draft Environmental Assessment (EA) for the Hanford Site, Attachment 3. Those two questions, which relate to the thickness of the host rock strata and the feasibility of shaft construction, address all the major elements of Dr. White's concerns. They are responded to, in part, by positions of the final EA for the Hanford Site which are given in Attachment 4. These statements reflect the continuing DOE/BWIP position. However, they are not supported by on-going, at-site investigations as have been recommended by the USGS.

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I suggest that this general topic be discussed at a meeting with the NRC Staff. The next meeting with the Staff is presently scheduled for September 10th, immediately preceding the next full Committee meeting. At that time, the Staff might have available personnel knowledgeable in mining engineering and rock mechanics and be able to discuss the general question of site viability.

Attachments:
List of Documents
Documents

cc: D.W. Moeller (w/atts.)
P.G. Shewmon (w/atts.)
F. Remick (w/atts.)
O. Merrill (w/atts.)
ACRS Members (w/atts. 1, 3)
ACRS Technical Staff (w/atts. 1, 3)
ACRS Fellows (w/atts. 1, 3)
J. Greeves - WMD (w/att. 1)
P. Justus - WMD (w/att. 1)
J. Linehan - WMD (w/att. 1)

ATTACHMENT 1 -- LIST OF DOCUMENTS

April 6, 1983	Robertson to Morgan (DOE-HQ) Comments on salt sites
May 6, 1983	Robertson to Olson (BWIP) Comments on draft Site Characterization Report (SCR) - Hanford
August 25, 1983	Frederick to Morgan (DOE-HQ) Comments on data review session at Hanford
October 10, 1984	Blanchard to Miller (NRC) Comments on Draft Technical Position for Hydrologic Testing Strategy for BWIP
March 27, 1985	Blanchard to DOE Comments to DOE on draft environmental assessment of Hanford site
June 28, 1985	Congressman Markey to Peck (U.S.G.S.) and response. July 26, 1985 Request for comments on report, "Heat, High Water and Rock Instability at Hanford". (Note this is the report that was circulated to ACRS on July 21, 1986)
December 12, 1985	Report on workshop on geotechnical design parameters held on June 25, 1985