Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

OCT 1 5 1982

Mr. H. J. Miller, Chief
High Level Waste Technical
Development Branch
Division of Waste Management
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Miller:

DOE/NRC REPOSITORY DESIGN WORKSHOP, OCTOBER 5 AND 6, 1982, RICHLAND, WASHINGTON

Enclosed for your information and review is a copy of the meeting minutes covering the subject workshop. Attached to the meeting minutes is the Workshop Attendance list and Agenda for the two-day meeting.

As noted in the minutes, the items identified as "Information Requests by NRC" are listed below along with commitment dates as to when the BWIP can submit these items to the NRC.

Item	Commitment Date
ES Test Plan (Phases I & II)	February 15, 1983
Finalized Conceptual Design (for the NWRB)	April 1, 1983
Magnum-2D and -3D Detailed Program Descriptions	September 30, 1983
NSTF Stress Measurement Data	November 15, 1982
Backup support data for NGI/CSIR chart presented by Kunsoo Kim	November 15, 1982

If you require assistance concerning the above, please call this office.

for O. L. Olson, Project Manager
Basalt Waste Isolation Project Office

BWI:DJS

00206

cc's for Letter, Olson/Miller, dated 10/15/82

W. A. Carbiener, ONI, w/enclosure
R. Stein, DOE-HQ "
R. A. Deju, Rockwell "
L. R. Fitch, Rockwell "
R. J. Wright, NRC "

MEETING MINUTES ON DOE/NRC WORKSHOP COVERING
BASALT WASTE ISOLATION PROJECT REPOSITORY DESIGN
October 5-6, 1982
Richland, Washington

The meeting was opened by the Department of Energy (DOE), a review of the agenda for the two-day meeting was presented, introduction of the meeting attendees was completed and a welcome was made.

Technical points made by NRC

In Situ Testing

1. There is a growing convergence of views between DOE/Rockwell Hanford Operations and NRC about the conceptual in-situ test plans. The logic and the plans have advanced considerably since the June 9-10 workshop. In general, the plans for ES-2 appear reasonable. Two points appear noteworthy: (1) The problem of predicting the strength of a rock mass intersected by numerous fractures is clearly recognized by DOE/Rockwell. Present plans call for block shear test(s) in ES-2. Whereas this will yield worthwhile information, the uncertainties in analysis of the results may be large. Thus, consideration might be given to development of data from a representative, large scale room test; (2) Since borehole data on the geologic characteristics of the host rock, particularly the nature and distribution of discontinuities, are limited, the observations made in ES-2 will make an important contribution. With greater knowledge, there will be greater confidence in the predictability of the geology and, hence, greater confidence in repository performance predictions.

Facility Design

2. a. At the present level of knowledge, most of the design assumptions contain various unstated ranges of uncertainties. Statements about these assumptions should be guarded regarding the firmness of the numbers. Otherwise, the design may be prematurely bound against future, possible changes.

b. Whereas the analysis of stability of openings appears to be conservative with respect to stress analysis, it may be nonconservative with respect to strength of the rock mass. Further, analyses including sensitivity analyses or testing would be useful.

c. Rock deformation analysis should be considered.

3. Hydrofracturing Tests

NRC reviewed the results from hydrofracturing tests in DC-12. The work appears to represent a state of the art approach and the results appear reasonable.

Information Requests by NRC

1. ES Test Plan.
2. Finalized Conceptual Design.
3. MAGNUM-2D and -3D detailed program descriptions.
4. NSTF stress measurement data.
5. Backup support data for NGI/CSIR chart presented by Kunsoo Kim.

Attachments:
Attendance List
Workshop Agenda

DOE/NRC
REPOSIT[illegible] DESIGN-EXPLORATORY SHAFT WOR[illegible]HOP AGENDA
RICHLAND, WASHINGTON

1135 Jadwin
Conference Room
October 5-6, 1982

Tuesday, October 5, 1982

8:45 a.m.	Introduction/Groundrules of Workshop	O. Olson/ L. Fitch
9:00 a.m.	Overview of NWRB Conceptual Design • Design Assumptions • Design Approach	D. Turner
10:20 a.m.	Break	
10:30 a.m.	In Situ Stress/Rock Strength • Testing Results to Date • Analysis of Results • Future Plans	K. Kim
12:00 noon	Lunch	
1:00 p.m.	Opening Design Methodology Used in NWRB Conceptual Design	K. Kim B. Schmidt (KE/PB)
2:30 p.m.	Overview of Sealing Program • Analysis and Testing to Date • Plans for Future Work	A. Cottam W. Schultz

Wednesday, October 6, 1982

9:00 a.m.	Exploratory Shaft Phase - I/II Test Plan • In Situ Stress • Rock Strength	R. Bielefeld K. Kim
10:20 a.m.	Break	
10:30 a.m.	Exploratory Shaft Grouting • Construction Specs • Grouting Specs • Quality Assurance and Testing Program	C. Webster R. Bielefeld H. Brandt
11:00 a.m.	Quality Assurance - Discuss MA-4 and its implementation	M. Nicol
12:00 noon	Lunch	
1:30 p.m.	NRC Wrap-up	R. Wright
3:30 p.m.	Exit Interview with NRC/DOE-RL/Rockwell	L. Fitch R. Deju DOE-RL NRC
4:30 p.m.	Dismiss	

BWI:DJS
9/22/82

10-5-82

ATTENDANCE LIST

Name	DOE	RHO	NRC	NRC-Consultants	KE/PB	Phone Number
L. R. Fitch		X				FTS 444-7001
D. J. Squires	X					444-7240
Mysore Nataraja (Raj)			X			427-4678
Birger Schmidt					X	415/271-4083
Lawrence Chase			X			301/427-4684
John S. Ritchie					X	415/271-5281
F. S. Kendorski				X		312/963-3460
Ernie Corp				X		FTS 439-6880
V. Rajaram				X		312/963-3460
Robert Wright			X			FTS 427-4177
John Greeves			X			FTS 427-4177
A. E. Cottam		X				FTS 444-8216
R. A. Deju		X				FTS 444-6806
W. R. Sublette		X				
J. M. Davis		X				FTS 444-7957
L. L. Johnson		X				FTS 444-8949
Kunsoo Kim		X				440-4181
R. M. Ybarra		X				444-6204
O. L. Olson	X					FTS 444-7334
R. J. Gimera		X				FTS 444-8919
G. S. Hunt		X				FTS 444-6786
W. M. McCabe		X				373-4188
J. E. Christenson		X				373-2880
Bruce Nicoll	X					FTS 444-6006
M. W. Frei	X					FTS 233-4004
D. L. Pentz				X		206/827-0777
J. J. Daemen				X		602/626-2501