

MEETING NOTES ON DOE/NRC WORKSHOP COVERING
 BWIP-HYDROGEOLOGY
 July 21-27, 1982
 Richland, Washington

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Technical

NRC was provided with the testing history and test results for the following boreholes: DC-1, DC-2, DC-3, DC-4/5, DC-6, DC-7/8, DC-12, DC-14, DC-15, DC-16A, RRL-2, DB-5, Cold Creek wells (McGee, Ford, Enyeart, O'Brien).

Based on the review of these boreholes, and discussions with the technical staff, NRC made the following points:

1. With the exception of the Van der Kamp (1976) method, the test procedures can be defended as state-of-the-art for single well tests in small holes.
2. Results from the Van der Kamp analysis are subject to challenge, as this method was developed for holes less than 150 feet deep and the application to deep holes is unverified.
3. In tests of interbeds, the test interval typically includes the base of the superjacent flow, the interbed, and the subjacent flow top. This fact is important in reporting and interpreting test results.
4. Values for hydraulic heads in boreholes away from the river are notably constant throughout the hole. In contrast, holes near the Columbia River show considerable variation from top to bottom. This leads to the impression that many interpretations of flow paths, based on head values, can be made.

With respect to information needs during site characterization, NRC made the following points:

1. The hydrologic test plan may be difficult to defend because of overreliance on single-well testing.
2. During site characterization groundwater levels should be monitored on a continuing basis.
3. The effect of drilling mud on permeability of low permeability basalt needs investigation. Also, drilling by non-mud methods (such as the reverse circulation air drill) should be tested.
4. Hydrologic measurements are needed on Grande Ronde breccia.
5. The 80-foot criterion for minimum host rock thickness needs refinement by engineering analysis.

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Action Items

DOE will provide:

1. Borehole map on scale of 1 inch equals 1 mile (or larger).
2. Matrix of NRC issues.
3. Engineering release control copy of MA-4.
4. Drill and test plan as soon as possible after issuance by DOE.
5. Reinterpretation of near-field and far-field definitions (Hunt).

Schedule for issuance of SCR:

- 8/13 Review comments due in DOE-HQ by ONI and DOE consultants.
- 10/25 SCR to printer
- 11/12 100 cc to DOE-HQ
- 11/15 50 cc to NRC (However, based upon past experience and evaluation of needs for the SCR review, NRC indicated they will require 100 copies of the SCR.)

DOE-RL plans to invite State participation in future workshops.

NRC will provide:

1. Further comments on single-well testing.
2. Viewgraphs of the licensing process.
3. Copies of letter notifications required by 10CFR60.

NRC and DOE will confirm 9/27 dual workshop plans covering the Repository Design/Rock Mechanics and Tectonics/Site Stability activities.

NRC will take up with DOE-HQ the release of the BWIP QA program plan.

DOE will include a discussion of licensing during the public information meetings, tentatively scheduled to be held in early 1983.

DOE will consider how to make available the references in the SCR (copies of the documents).

DOE will follow up on issues raised in the workshop wrapups and determine how best to respond to NRC on each.

Additional open items may be identified by DOE or NRC during the week of July 26.

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