

UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

December 19, 1983



MEMORANDUM FOR: Robert E. Browning, Director
Division of Waste Management

FROM: F. Robert Cook, Senior On-Site Licensing Representative
Basalt Waste Isolation Project (BWIP)

SUBJECT: BWIP SITE REPORT FOR WEEKS OF DECEMBER 4 and 11, 1983
(NWS ANNUAL MEETING TRIP REPORT)

1. In a letter from Hunt to Fitch (RHO) of November 23, 1983 Hunt stated that gases coming from the Umtanum flow in DC-19 were 56% CH₄ and the rest N₂. The Cohasset flow top produced 48% CH₄.
2. Rockwell has recently core drilled DC-16C in an anomalous zone in the Umtanum flow interior. The zone had indicated by geophysical logs high water content. The new hole deviates from DC-16C and is called DC-16C-A1. DC-16C had been drilled by a rotary rig and had no core sample in this zone. The core from the deviated hole has been obtained, however, based on discussion with P. Long (RHO) 8 feet is missing. The zone in question is apparently made up of material which breaks up readily and could not be retained by the coring apparatus used by RHO's contractor. (Note I previously had reported verbally to R. Wright and others that the deviated hole discussed above had been drilled from RLL-2 around the section where there had been a 2 foot core loss. This report was in error and is corrected by the above discussion.)
3. In a memorandum from Gimera to Ash (RHO) of December 01, 1983, Gimera reports that Kaiser has completed Engineering Study #7, which addresses Waste Emplacement Optimization. I am attempting to get a copy of this report and will forward it to Greeves when it is obtained.
4. RHO has reviewed an A. D. Little Computational model for transport in the far field prepared for EPA. Their (RHO's) basic comment is that the model is overly simplified and produces a conservative estimate of ground water flow rates around the BWIP repository.
5. In a letter from Hunt to Fitch of November 18, 1983, Hunt noted that drawdown testing on DC-19C in the Cohasset flow top (3008 to 3104 ft) had indicated a transmissivity of 10¹ to 10² ft²/day.
6. Westinghouse (Hanford) has completed a study of Alternate Waste Package Designs. This study is attached to Greeves's copy of this memorandum.

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7. NTS and Salt projects (based on performance assessment papers) appear behind BWIP in their work to develop a statistical assessment methodology for performance assessment, including reliability analyses for engineered system components. The staff has repeatedly noted the importance of the reliability analyses to NTS and Salt project personnel.

This issue should be raised at headquarters so that direction of the 3 projects is made consistent and so that comparable SCP's are produced.

8. The overall impression I obtained from the sessions is that DOE's management at Headquarters is tentative and not effecting consistent direction of the project. This observation was supported by Congressman Udall's observations on December 12, 1983, and by comments from the public during the "Institutional Issues" session on December 14, 1983. Also presentations by DOE and their contractor were not consistent. An example is noted in item 7 above. (Comments I received from observers about IRC's management were positive with the exception of the note that we still have acting positions at critical locations.

ls/

F. Robert Cook
Sr. On-Site Licensing Rep., BWIP

cf: HJMiller
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