

MAR 3 1988

426.1/D1020/POHLE

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Dr. Roy E. Williams
Williams and Associates, Inc.
P.O. Box 48
Viola, Idaho 83872

Dear Dr. Williams:

I have received your report entitled "Effect of Rock Inhomogeneity on Uniformity of Downward Flux in Yucca Mountain" submitted as Communication No. 168 dated January 29, 1988. Before accepting the report as final, Please prepare a revised draft of the report based on the following comments.

1. Add author(s) names and date the report proper.
2. Add a more detailed discussion/description of UNSAT 2 prior to discussing this particular application of UNSAT 2. Also include appropriate references(s) for the program. As I recall, Water, Waste and Land, Inc. developed a users guide for NRC under a previous contract. Check with Lyle Davis of WW&L on this.
3. Provide documentation of the simulations by attaching copies of the final simulation (print-out) for each of the nine conditions.
4. If you have a graphics package linked to the UNSAT 2 output file, including figures in the report showing the final potential field would be helpful. However, if this can not be done easily do not expend effort to do so.
5. Saturation/tension relationships used should be described. A moisture characteristic curve would be more illustrative than the tabular form used as input to UNSAT 2 unless the default curves were used due to lack of available data.
6. I would delete the analogy to "fracture" zones under factor no. 1 on page 13. Reference to a permeable fault zone which acts as an equivalent porous medium is acceptable.
7. In the introduction to the report you indicate that in the analysis of downward flux in the Topopah Spring member in Yucca Mountain by Montazer and Wilson (1984) and Wilson (1985), an assumption has been made that the distribution of vertical flux is uniform in the horizontal plane. Because section staff cannot agree as to whether or not the cited references support that statement it is necessary to expand the discussion of these references to provide a more complete background for the report. We need to be assured that all references do indeed support statements/conclusions made.

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PDR WMRES EECWILA
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I have no further comments. Submit your revised draft by March 18, 1988. If additional comments are brought to my attention this date can be revised.

The action taken by this letter is considered to be within the scope of the current contract NRC-02-85-008. No changes to costs or delivery of contracted products are authorized. Please notify me immediately if you believe this letter would result in a change to costs or delivery of contracted products.

Sincerely,



Jeffrey A. Pohle, Project Officer
Technical Review Branch
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards

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LETTER FOR: Dr. Roy E. Williams
Williams and Associates, Inc.
P.O. Box 48
Viola, Idaho 83872

FROM: Jeffrey A. Pohle, Project Officer
Technical Review Branch
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: MONTHLY PROGRESS REPORT FOR FEBRUARY 1988

DATE: February 1988 MAR 3 1988

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ORGANIZATION/CONCUREE	INITIALS	DATE CONCURRED
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