

Distribution: WM-83-908
 WM File: A3167
 WMEG r/f
 NMSS r/f WM-10,11,16
 REBrowning
 MJBell
 JTGreeves
 TLJungling & r/f
 EAWick
 HJMiller
 JOBunting
 MRKnapp
 PSJustus
 PDR ✓
 LPDR (B,S,N)

JAN 11 1983

426.1/TLJ/84/01/11/0

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Dr. Peter Soo, Associate Division Head
 Nuclear Waste Management Division
 Brookhaven National Laboratory
 Associated Universities, Inc.
 Upton, NY 11973

Dear Dr. Soo:

The NRC's comments on BNL's November 1983 Progress Letter for FIN A-3167 (Review of Waste Package Verification Tests) are presented below.

Page 2, Task 1. The evaluation of the packing material for a tuff repository should include the mixture of crushed tuff / 15% Fe-smectite clay as well as 100% crushed tuff as a reference case for comparative purposes.

Also before using the test requirements for a saturated basalt repository, (discussed in NUREG/CR-3091, Vol. 2) to test packing material for an unsaturated tuff repository, modifications will need to be incorporated to simulate the intermittent nature of water recharge events.

Phase III Test Specifications for Task 4. Since earlier Phase II testing with methane produced an overpressure of approximately 500 PSI (1900 PSI actual, 1400 PSI predicted), please consider what approach will be used in Phase III, i.e., whether the pressure should be allowed to reach 1900 PSI to compare to the results of Phase II or whether less methane should be used to compensate and thereby reduce the pressure down to 1400 PSI. Also please state whether or how the difference in pressure may affect the results and why it occurred in the Phase II Test.

The Phase III Test Specification is approved but BNL is requested to state in the next progress letter how the overpressure item discussed above was addressed in the Phase III Test.

The action taken by this letter is considered to be within the scope of FIN A-3167. No changes to costs or delivery of contracted products

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are authorized. Please notify me immediately if you believe this letter would result in changes to costs or delivery of contracted products.

Sincerely,

Everett A. Wick

Everett A. Wick
Engineering Branch
Division of Waste Management

cc: Dr. H. J. C. Kouts, Chairman
Nuclear Energy Department

Dr. W. Y. Kato, Deputy Chairman
Nuclear Energy Department

Dr. D. G. Schweitzer, Associate
Chairman and Head
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Dr. M. S. Davis, Deputy Division Head
Nuclear Waste Management Division