

June 26, 2000

Stephan J. Brocoum, Acting Assistant Manager  
Office of Licensing and Regulatory Compliance  
Yucca Mountain Site Characterization Office  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

SUBJECT: SAFETY EVALUATION REPORT FOR DISPOSAL CRITICALITY  
ANALYSIS METHODOLOGY TOPICAL REPORT, REVISION 0

Dear Mr. Brocoum:

By your letter, dated January 7, 1999, the U.S. Department of Energy (DOE) requested that the U.S. Nuclear Regulatory Commission (NRC) review the Disposal Criticality Analysis Methodology Topical Report, Revision 0 (YMRP/TR-004Q). The NRC staff has completed its review and has prepared the enclosed safety evaluation report (SER) documenting the results of the staff evaluation of the Topical Report.

The scope of this SER is based on the revised scope of the Topical Report provided in your letter, dated November 19, 1999, transmitting the DOE's responses to the NRC's request for additional information. In issuing this SER, the NRC staff also considered the DOE's oral comments made in the March 22, 2000, technical exchange, and the written comments, transmitted to the NRC by DOE's letter, dated May 17, 2000, on the draft SER .

This SER documents the results of staff evaluation in terms of Acceptance, Confirmatory Items, or Open Items. The review and acceptance of the DOE's proposed approach is specifically within the context and scope of the request. The Confirmatory Items pertain to those specific areas for which the NRC finds the DOE's approach or methodology acceptable provided that the DOE fulfills its commitments to take into account additional factors identified by the NRC staff. These factors are identified as conditions for acceptance. The Open Items are related to those specific areas in which the staff does not agree with the DOE's approach or where there is not sufficient information for the staff to make a determination.

As stated in your November 19, 1999 letter, "The DOE plans to seek acceptance of additional aspects of the methodology through a revision to the Topical Report planned for submittal late in Fiscal Year 2000." The staff hopes to close most of the open items after examining the revised Topical Report.

S.J. Brocoum

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If you have any questions regarding this letter, please contact Meraj Rahimi at (301) 415-6616.

Sincerely,

***/RA/***

C. William Reamer, Chief  
High-Level Waste Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Safety Evaluation Report for Disposal Criticality Analysis Methodology Topical Report, Revision 0

cc: See attached list

Letter to S.J. Brocoum from C.W. Reamer dated: June 26, 2000

cc: R. Loux, State of Nevada  
S. Frishman, State of Nevada  
L. Barrett, DOE/Wash, DC  
A. Brownstein, DOE/Wash, DC  
S. Hanauer, DOE/Wash, DC  
C. Einberg, DOE/Wash, DC  
D. Shelor, DOE/Wash, DC  
N. Slater, DOE/Wash, DC  
R. Dyer, YMPO  
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C. Hanlon, YMPO  
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R. Arnold, Pahrump County, NV  
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F. Marcinowski, EPA  
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R. McCullum, NEI  
S. Kraft, NEI  
J. Kessler, EPRI  
R. Wallace, USGS  
R. Craig, USGS  
W. Booth, Engineering Svcs, LTD  
J. Curtiss, Winston & Strawn

If you have any questions regarding this letter, please contact Meraj Rahimi at (301) 415-6616.

Sincerely,

**/RA/**

C. William Reamer, Chief  
High-Level Waste Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Safety Evaluation Report for Disposal Criticality Analysis Methodology Topical Report, Revision 0

cc: See attached list

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