

September 28, 2001

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

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION STAFF REVIEW OF THE U.S.  
DEPARTMENT OF ENERGY'S PROPOSED APPROACH TO RISK  
SIGNIFICANCE CATEGORIZATION OF STRUCTURES, SYSTEMS, AND  
COMPONENTS IMPORTANT-TO-SAFETY

Dear Dr. Brocoum:

Enclosed is a paper summarizing U.S. Nuclear Regulatory Commission (NRC) staff review of the U.S. Department of Energy's (DOE's) proposed approach to the risk significance categorization of structures, systems, and components important-to-safety (SSCIS), for a proposed high level waste repository. The purposes of the enclosed paper are to: (1) identify the attributes of an acceptable approach to risk significance categorization of SSCIS consistent with their importance to safety; (2) evaluate the DOE's proposed approach for the risk significance categorization of SSCIS for the proposed geologic repository operations area at the Yucca Mountain site; and (3) summarize the staff's position on DOE's proposed approach.

NRC staff made a draft of this paper available during the last Technical Exchange on Preclosure Safety (July 24 through 26, 2001) between the NRC staff and the DOE. The staff has made minor revisions to the paper based on discussions that took place during the Technical Exchange on Preclosure Safety. As mentioned during the technical exchange, the staff's current intent is to incorporate the acceptance criteria identified in this paper into the applicable sections of the Yucca Mountain Review Plan which is currently under preparation. DOE may find this paper helpful in the further development of revisions of the Repository Safety Strategy, Preliminary Preclosure Safety Assessment, and associated quality assurance procedures.

S. Brocoum

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If you have any questions regarding this letter, please contact Robert K. Johnson or Mysore S. Nataraja. Mr. Johnson can be reached at (301) 415-6900 and Dr. Nataraja at (301) 415-6695.

Sincerely,

/RA/ nks for cwr

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

Enclosure: QL Categorization

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Letter to S. Brocoum from C. W. Reamer dated September 28, 2001

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