

JUN 29 1990

RESP TO DOE/8

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Mr. Ralph Stein, Associate Director
for Systems Integration and Regulations
Office of Civilian Radioactive Waste Management
U. S. Department of Energy, RW 30
Washington, D.C. 20545

Dear Mr. Stein:

SUBJECT: RESPONSE TO QUESTION ON THE USE OF ANTICIPATED PROCESSES AND EVENTS
IN DESIGN OF THE ENGINEERED BARRIER SYSTEM

By letter dated October 5, 1989, the U.S. Department of Energy (DOE) requested clarification of some comments said to have been made by a staff member during the September 26, 1989, technical exchange on tectonics concerning the treatment of anticipated processes and events (APEs) in the development of the design bases for the engineered barrier system (EBS). In particular, DOE wanted to know whether APEs are equivalent to design basis events and whether APEs needed to be "assumed" for purposes of design or whether they need only be "considered".

Anticipated processes and events do not constitute the sole design basis for the EBS, as other factors have to be included in the design basis in order to comply with such provisions as the design criteria presented in 10 CFR 60.135, the preclosure performance objectives in 10 CFR 60.111, and the requirements of 10 CFR 60.112 that the waste package, engineered barrier system, and natural system all work together to assure that the U.S. Environmental Protection Agency standard is met. As part of the overall design process, however, DOE must, among other things, assume the occurrence of APEs and demonstrate that under such assumed conditions the performance objective of 10 CFR 60.113(a)(i) will be met.

Any questions regarding this response should be directed to Ken Kalman, of my staff. Mr. Kalman can be reached by telephone on (301) 492-0428 or FTS 492-0428.

Sincerely,

John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County
- M. Baughman, Lincoln County
- D. Bechtel, Clark County
- D. Weigel, GAO.

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