

June 9, 2003

The Honorable Nils J. Diaz  
Chairman  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

SUBJECT: COMMENTS ON THE NATIONAL ACADEMIES' STUDY, "ONE STEP AT A TIME: THE STAGED DEVELOPMENT OF GEOLOGIC REPOSITORIES FOR HIGH-LEVEL RADIOACTIVE WASTES"

Dear Chairman Diaz:

During its meeting on April 22, 2003, the Advisory Committee on Nuclear Waste (ACNW) heard a presentation regarding the National Academies' report, "One Step at a Time: The Staged Development of Geologic Repositories for High-Level Radioactive Wastes." The report provides "a systematic framework for a particular stepwise approach for repository development, termed Adaptive Staging, together with operational suggestions on how this approach can be applied in practice." As defined by the National Academies, Adaptive Staging is a flexible, decision-based process whereby program development milestones are iteratively reevaluated throughout the course of the project.

The Committee concluded that the Nuclear Regulatory Commission's (NRC's) existing processes prior to and after submission of a license application are very similar to those envisioned in the National Academies' report. In particular, the specific processes developed for the anticipated Yucca Mountain license application review incorporate interactive strategies. While the nomenclature used by NRC is different from that in the Academies' report, the interactive and iterative processes are quite similar.

For the Yucca Mountain project, the Committee believes that the processes and plans that are in place are sufficiently iterative and adaptive. For example, the use of the Key Technical Issue (KTI) development, evaluation, and resolution is a sound example of an adaptive process. The KTI process has allowed for the development and refinement of information in the prelicensing phase that will likely result in a much improved license application.

The Committee believes that the National Academies' report is generic in nature. It does not fully address the implications that would be associated with the Adaptive Staging approach if applied to licensing Yucca Mountain. For example, the concept of "reduced-scale pilot stage" and "buffer storage" as recommended by the National Academies could result in unnecessary confusion and delays in the Yucca Mountain project.

The Academies' report does provide guidance regarding strategies for stakeholder involvement, development of public trust, and effective communications. The Committee believes those suggestions are useful. However, the guidance or practices described in the report are not new for licensing nuclear facilities.

Sincerely,

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George M. Hornberger  
Chairman