



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 29, 1994

Dr. Jane R. Summerson
U.S. Department of Energy
Yucca Mountain Site Characterization
Office
101 Convention Center Drive
Las Vegas, Nevada 89109

SUBJECT: COMMENTS ON OCTOBER 31, 1994, FEDERAL REGISTER NOTICE

Dear Dr. Summerson:

This letter provides comments of the U.S. Nuclear Regulatory Commission staff on the U.S. Department of Energy's (DOE's) October 31, 1994, Notice of Inquiry (59 FR 209, 54445). The notice solicits views on: 1) a proposed methodology for using the National Academy of Sciences (NAS) Board on Radioactive Waste Management to implement and manage peer reviews of the technical bases for DOE's evaluation of site suitability; and 2) DOE's proposal to establish a standing NAS committee to review DOE's analyses of post-closure repository performance.

We understand that DOE's technical site suitability determination, pursuant to 10 CFR Part 960, is solely within DOE's purview, and recognize the Department's intent to establish a process for obtaining external peer review of the technical work supporting its suitability findings. NRC is commenting on this proposal consistent with its regulatory responsibilities because NRC understands that DOE intends to use the results of this effort to support a site recommendation decision and a license application in the event that a site is found suitable for development as a repository. It is the intent of the NRC staff to comment formally in parallel with the reviews of the NAS peer review committees throughout this process on those issues and findings which have bearing on NRC's licensing responsibilities.

The proposed peer review process limits the peer reviews solely to the technical basis for compliance and does not include reviews of compliance assessments and decisions. While we understand the reason for not having a peer review of the compliance assessment, it is not clear how the technical adequacy of data and analyses can be evaluated meaningfully without taking into consideration their ultimate use. DOE should consider making available to the peer review committees relevant information regarding regulatory criteria and compliance methods so that the committees' reviews may address the technical adequacy of data and analyses for their intended application to regulatory compliance with both Part 960 and Part 60.

Furthermore, in the NRC staff's view, individual aspects of repository performance should be assessed in relation to their effects on overall system performance. The subject notice does not clarify how DOE intends to provide for such integration in the annual peer reviews of long-term system performance. At a minimum, for the results of this process to be included as a part of a license application, peer-reviewed calculations and assessments

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should be evaluated by the standing committee in terms of the overall system performance objectives of Part 60. The process and schedule for updating DOE's Annotated Outline should be revised to allow for integrating the results of the peer review process that are relevant to the license application, especially as they relate to long-term system performance.

Lastly, we note that NRC has provided guidance for peer reviews that DOE would use in support of a HLW license application. This guidance appears in NUREG-1297, "Peer Review for High-Level Nuclear Waste Repositories." To the extent that DOE plans to use the results of any peer review process to support a license application, it should ensure that the peer reviews are conducted consistent with this guidance. If DOE does not follow the guidance, it will need to show that the process used is acceptable for demonstrating compliance with Part 60. However, use of an alternative to the guidance given in NUREG-1297 could impact the staff's ability to review a future license application in a timely manner. For these reasons, consideration should be given to establishing a peer review process consistent with NRC guidance on peer reviews provided in NUREG-1297.

We trust that DOE will carefully consider the foregoing comments as it proceeds to implement a process for peer review as outlined in the Notice of Inquiry. We would welcome an opportunity to meet with the DOE and other interested parties to discuss these and related issues in greater detail. If you have any questions, please contact the NRC Project Manager, Pauline Brooks at (301) 415-6604.

Sincerely,
[Original signed by Malcolm R. Knapp]
Malcolm R. Knapp, Director
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

cc: See Attached List

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J. Summerson

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No legal objection by telephone 11/17/94

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