



Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
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"PRINCIPLES AND GUIDELINES FOR FORMAL USE OF EXPERT JUDGEMENT BY
THE YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT OFFICE" AND
RESOLUTION OF SITE CHARACTERIZATION ANALYSIS (SCA) COMMENT 3
(SCPB: N/A)

References: (1) Ltr, Shelor to Linehan, dtd 12/14/90
(2) Ltr, Bernero to Bartlett, dtd 7/31/91
(3) Ltr, Shelor to Holonich, dtd 7/12/93

On December 14, 1990, the U.S. Department of Energy (DOE)
transmitted its responses to objections, comments, and questions
presented in the U.S. Nuclear Regulatory Commission's (NRC) SCA
(Reference 1). The NRC staff evaluated these responses, closing
some of the items and creating open items of the remainder
(Reference 2). SCA comment 3 has been addressed through actions
and progress in the program.

The purpose of this letter is to provide supplemental information
on Comment 3 related to the formal use of expert judgement
(Expert Elicitations) and to request that the NRC review this
information and concur that the information contained in the
enclosure is adequate to resolve this open item. The enclosure
provides the supplemental response to the NRC staff evaluation
and the administrative record for Comment 3.

In SCA Comment 3 on the DOE Site Characterization Plan, the NRC
noted that the DOE did not state the criteria for the formal use
of expert judgement, and that it was not clear that the license
application will comply with the requirement of 10 Code of
Federal Regulations 60.24(a), "The application shall be as
complete as possible in light of information that is reasonably
available at the time of docketing."

The enclosed document, *Principles and Guidelines for Formal Use
of Expert Judgement by the Yucca Mountain Site Characterization
Project* (enclosure 1), provides DOE's position on the explicit

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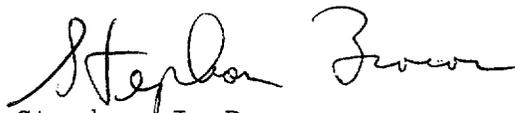
and formal application of expert judgement. This document is provided to the NRC staff for their review to facilitate discussions prior to issuance of NRC guidance on the use of expert judgement. The DOE requests NRC concurrence on the adequacy of the general principles and guidelines to be used during site characterization.

As noted in the enclosed document, it is DOE's position that expert judgement is not a substitute for the best data reasonably available. However, data must be interpreted in light of judgement-based models. Interpretation of data in a consistent framework, with adequate treatment of assumptions and uncertainties, creates the technical basis required for regulatory evaluations.

The DOE position stated in the enclosed document is consistent with the general approach to the formal use of expert judgement presented in the NRC contractor report, *Elicitation and Use of Expert Judgement in Performance Assessment for High-Level Waste Repositories* (NUREG/CR-5411, 1990) and with the NRC's generic technical position, *Peer Review for High-Level Nuclear Waste Repositories* (NUREG-1297, 1988). The principles and guidelines outlined in the enclosed document also address recommendations made by the Nuclear Waste Technical Review Board (NWTRB) in their tenth report, *Report to the U.S. Congress and the Secretary of Energy* (1994). In that report, the NWTRB recommended that the DOE establish guidelines for the formal use of expert judgement in both programmatic studies and performance assessments.

The DOE believes that the document provided in the enclosure is responsive to NRC concerns expressed in SCA Comment 3, and on the basis of the enclosed administrative record, Comment 3 should be resolved.

If you have any questions, please contact either me at (702) 794-7971 or Thomas W. Bjerstedt of the Licensing Team at (702) 794-7590.



Stephan J. Brocoum
Assistant Manager for
Suitability and Licensing

AMSL:TWB-3295

Enclosure:
Principles and Guidelines for
Formal Use of Expert Judgement
by the Yucca Mountain Site
Characterization Project
(Administrative Record for
SCA Comment 3)

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cc w/encl:

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