



Department of Energy

Washington, DC 20585

QA: N/A

October 27, 2003

Dr. Michael L. Corradini
Chairman
Nuclear Waste Technical Review Board
2300 Clarendon Boulevard
Arlington, VA 22201-3367

Dear Dr. Corradini and Board Members:

I have received your letter of October 21, 2003, transmitting the Board's comments on the data and analyses we presented at the Board's May 13-14, 2003, meeting. I look forward to the report containing the detailed basis for the Board's comments, and will provide a response after there has been time to review it.

I am deeply disappointed by the premature release of the letter's contents. As a result, I am providing an immediate response so that I may register my concern about statements in the letter that, taken out of context, might be misunderstood or misrepresented. I am referring specifically to the definitive statements that crevice corrosion is "likely to initiate" during the thermal pulse, that "the data in hand [show] that localized corrosion is likely," and that "the high temperatures of the current design and operation will result in perforation of waste packages... ." I do not agree that the data cited by the Board support such definitive conclusions.

As we presented in the May meeting, the corrosion testing results cited in the Board's letter provide an incomplete representation of what we expect to occur in the likely environment inside the repository drifts. The Board's conclusions did not acknowledge the dependence of those results on the existence of extreme and unlikely environmental conditions, nor did the letter say whether the Board believes that such conditions are likely to occur. The outcome is an incorrect implication that the data show that localized corrosion and waste package perforation are "likely to" or even "will" occur.

With reference to the statement "that total system performance assessment should not be used to dismiss these corrosion concerns," I want to assure you that we will not dismiss the Board's corrosion concerns. However, as you know, the performance assessment is a required part of the demonstration of compliance with safety requirements established by the Environmental Protection Agency and the Nuclear Regulatory Commission.



Finally, I appreciate the fact that the Board's approach relates to the thermal operating conditions of the repository, and not to the ability to dispose of waste safely at Yucca Mountain.

Once again, we look forward to the Board's forthcoming report that we anticipate will provide a more complete basis and context for the Board's conclusions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Margaret', with a long horizontal flourish extending to the right.

Dr. Margaret S. Y. Chu, Director
Office of Civilian Radioactive
Waste Management