

Mr. Grant Hudlow
P.O. Box 2629
Pahrump, NV 89041

October 8, 1999

SUBJECT: USE OF "NELSON LIMITS" IN THE REPOSITORY PROGRAM

Dear Mr. Hudlow:

At our June 1999 public meeting in Amargosa Valley on the U.S. Nuclear Regulatory Commission's (NRC) proposed rule for the disposal of high-level radioactive waste, you asked me a question about the use of "Nelson Limits" in the repository program. I was unable to respond to the question at that time, but committed to you that we would get back to you on this topic. To address your question, I asked our experts on waste package performance at the Center for Nuclear Waste Regulatory Analyses (CNWRA) to explore the issue of Nelson Limits or Nelson Diagrams and prepare a response.

Enclosed with this letter is the result of CNWRA's analysis of Nelson Limits. They conclude that Nelson diagrams and operating limits are not relevant to the performance of waste container materials for a number of reasons, including the composition of materials currently being considered for fabricating waste packages.

In addition to the CNWRA's analysis of Nelson Limits, we are also enclosing a transcript from the public meeting held in Amargosa Valley. Due to an error on our part, you were left off the mailing list when we sent copies of the transcripts to those who requested them.

I hope that the information in the enclosure fully responds to your question at the public meeting. If you have any further questions, you can contact me here at the NRC (301-415-7289).

Sincerely,
[Original signed by:]
Keith I. McConnell, Section Chief
Performance Assessment and
Integration Section
High-Level Waste and Performance
Assessment Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. CNWRA's Analysis of Nelson Limits
2. Transcript of Proceedings of June 15, 1999
Public Meeting at Yucca Mountain, NV

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