



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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APR 08 1993

Dr. Kevin Coppersmith  
GEOMATRIX  
100 Pine Street, 10th Floor  
San Francisco, CA 94111

Dear Dr. Coppersmith:

SUBJECT: PLENARY SESSION ON THE 199<sup>3</sup> LITTLE SKULL MOUNTAIN  
EARTHQUAKE INTERNATIONAL HIGH LEVEL RADIOACTIVE WASTE  
MANAGEMENT CONFERENCE

Thank you for inviting me to participate in the plenary session on the Little Skull Mountain earthquake at the International High Level Radioactive Waste Management conference (IHLWM). I appreciate the opportunity to participate in the discussions on this topic and am very interested in hearing the impressions and interpretations of others involved in the High Level Waste Program.

Your March 15, 1993, letter requested that I prepare two or more questions to be asked of me and one or more questions to be asked of other panelists. Listed below are the questions I have prepared.

For K. McConnell:

- 1) What is the significance of the Little Skull Mountain Earthquake with respect to 10 CFR Part 60 requirements?
- 2) How has the NRC staff reacted to the Little Skull Mountain Earthquake?

For Carl Gertz:

- 1) Following the Little Skull Mountain earthquake, DOE proposed an "Action Plan to Assess Seismic Hazard at Yucca Mountain on a Priority Basis." Has this action plan been adopted and how does it differ from activities identified in the Site Characterization Plan?

For Carl Johnson:

- 1) Geologists from the state of Nevada have stated on a fieldtrip that faults in Crater Flat west of Yucca Mountain may be interconnected. With the recent Little Skull Mountain earthquake, how does the state view the potential for a large magnitude seismic event/fault displacement at Yucca Mountain over the next 100 yrs. and next 10,000 yrs?

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large magnitude seismic activity/fault displacement at Yucca Mountain over the next 100 yrs. and next 10,000 yrs?

For Leon Reiter:

- 1) What significance, if any, should the Little Skull Mountain earthquake have in assessments of seismic hazard at Yucca Mountain?

For Carl Stepp:

- 1) From an industry perspective, what is the significance of the Little Skull Mountain earthquake to activities related to a high level waste repository?

For John Whitney:

- 1) What effect, if any, will the Little Skull Mountain Earthquake have on the approaches to characterizing fault displacement hazards and seismic hazards at Yucca Mountain.
- 2) Published reports on hydraulic fracturing stress measurements have indicated that favorably oriented faults at Yucca Mountain might fail under current stress conditions. What, in your estimation, is the potential for triggering displacement on faults at Yucca Mountain by the occurrence of distant earthquakes.

If you have any questions, please contact me at (301) 504-2532.

Sincerely,

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Keith I. McConnell, Section Leader  
 Geology/Geophysics Section  
 Division of High-Level Waste  
 Management  
 Office of Nuclear Materials Safety  
 and Safeguards

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