

Mr. Ralph Stein, Associate Director
 for Systems Integration and Regulations
 Office of Civilian Radioactive Waste Management
 U. S. Department of Energy, RW 30
 Washington, D.C. 20545

JUL 31 1990

Dear Mr. Stein:

SUBJECT: SUMMARY FOR THE JUNE 12-13, 1990 NRC-DOE TECHNICAL EXCHANGE ON
 SIGNIFICANT FAULTS

The purpose of this letter is to transmit the summary for the June 12-13, 1990 NRC-DOE Technical Exchange on Significant Faults. On June 12, NRC and DOE discussed NRC's draft definition of a tectonically significant fault. In addition, DOE explained how the study plan on the location and recency of faulting near prospective surface facilities and the study plan on Quaternary faulting within the site area fit into the overall tectonics portion of DOE's site characterization program and offered responses to the the NRC's written review comments on the former study plan. Throughout the discussions, the importance of reaching early agreement on an approach for deciding which faults need to be characterized was emphasized. On June 13, participants visited a number of field sites in the vicinity of Yucca Mountain related to the topics discussed the previous day. Representatives of the State of Nevada participated in this interaction.

Should you have any questions on the enclosure, please contact King Stablein (FTS 492-0446) of my staff.

Sincerely, ORIGINAL SIGNED

John J. Linehan, Director
 Repository Licensing and Quality
 Assurance Project Directorate
 Division of High-Level Waste Management

Enclosure: As stated

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO
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SUMMARY OF NRC-DOE TECHNICAL EXCHANGE
ON SIGNIFICANT FAULTS
Las Vegas, Nevada (June 12, 1990)
Field Trip Localities in the Vicinity of
Yucca Mountain, Nevada (June 13, 1990)

Agenda: See Attachment 1.

List of Attendees: See Attachment 2.

Summary:

On June 12-13, 1990, the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) conducted a technical exchange on significant faults and their characterization at the Yucca Mountain, Nevada proposed high-level waste repository site. The purposes of the technical exchange were: (1) to discuss NRC's draft definition of a tectonically significant fault; (2) to address NRC's comments concerning the study plan on the location and recency of faulting near prospective surface facilities (Study Plan 8.3.1.17.4.2); and (3) to discuss the draft study plan on Quaternary faulting within the site area (Study Plan 8.3.1.17.4.6). On June 12, NRC presented the background of and the rationale for its definition of tectonically significant fault, after which the participants discussed its regulatory ramifications and especially its impact on what faults DOE might need to characterize at Yucca Mountain. DOE made a presentation on how the two subject study plans fit into the overall tectonics portion of the site characterization program and offered responses to the NRC written review comments on the former study plan. The State of Nevada participated in the exchange and was generally in agreement with the NRC concept of tectonically significant faults, although the State suggested that the NRC could discuss more fully postclosure considerations, particularly in regard to the repository block. On June 13, the group visited sites in the vicinity of Yucca Mountain related to Quaternary faulting, the location and recency of faulting near prospective surface facilities, and the field evidence evaluated in the Exploratory Shaft Facility (ESF) Geophysical Anomaly Technical Assessment Review (TAR).

Both NRC and DOE considered that the exchange was useful in highlighting the problems faced in attempting to adequately characterize the faults in the vicinity of Yucca Mountain. In particular, the importance of reaching early agreement on an approach for deciding which faults need to be characterized was emphasized throughout the discussions.

King Stablein 7/27/90
King Stablein, Sr. Project Manager
Repository Licensing and Quality
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Steven H. Rossi 7/27/90
Steven H. Rossi
Licensing Branch
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U.S. Department of Energy

May 17, 1990

DOE-NRC TECHNICAL EXCHANGE ON SIGNIFICANT FAULTS

JUNE 12 AND 13, 1990, LAS VEGAS, NV
 BLUE ROOM, DOE OFFICES - VALLEY BANK CENTER
 Tuesday 8:00 a.m. - 4:00 p.m.
 Wednesday 7:00 a.m. - 6:30 p.m. (field trip)

Purpose: (1) to discuss NRC's definition of a significant fault; (2) to address NRC comments concerning the study plan on the location and recency of faulting near prospective surface facilities (Study Plan 8.3.1.17.4.2); and (3) to discuss the study plan on Quaternary faulting within the site area (Study Plan 8.3.1.17.4.6).

Scope: This technical exchange will concentrate on the integration of Study Plan 8.3.1.17.4.2 and Study Plan 8.3.1.17.4.6 into the overall tectonics portion of the site characterization program, including the derivation of information needs for the study plans, and approaches for obtaining the data.

Tuesday, June 12, 1990

<u>AGENDA TOPICS</u>	<u>DISCUSSION LEADER</u>
Opening Remarks	DOE, NRC, State
o NRC definition of significant faults	NRC
Discussion	all
Break	
o Integration of Study Plan 8.3.1.17.4.2 and Study Plan 8.3.1.17.4.6 into the Overall Tectonics Program	DOE
Discussion	all
Lunch	
o Study Plan 8.3.1.17.4.2 - Location and Recency of Faulting Near Prospective Surface Facilities	DOE
- Response to NRC comments	
- Geophysical techniques that will be used in this investigation	
Discussion	all

Tuesday, June 12, 1990
(continued)

<u>AGENDA TOPICS</u>	<u>DISCUSSION LEADER</u>
o Quaternary faulting within the site area (Study Plan 8.3.1.17.4.6)	DOE
Discussion	all
o Closing remarks	DOE, NRC and State
o Field trip plans	DOE
Adjourn	

Wednesday, June 13, 1990

Field trip

- (1) Stops to include areas related to Quaternary faulting.
 - o Busted Butte
 - o Stagecoach Road Fault
- (2) Stops to include areas related to the ESF geophysical anomaly Technical Assessment Review (TAR).
 - o Coyote Wash
 - o Wren Wash
 - o Split Wash
 - o Dead Yucca Ridge
- (3) Stop to include areas related to location and recency of faulting near prospective surface facilities:
 - o Exile Hill

JUNE 12, 1990

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