

APR 08 1994

MEMORANDUM FOR: Joseph J. Holonich, Chief
High-Level Waste and Uranium Recovery Projects Branch
Division of Waste Management

FROM: Charlotte Abrams, Senior Project Manager
High-Level Waste and Uranium Recovery Projects Branch
Division of Waste Management

SUBJECT: FORTHCOMING NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY (DOE) SITE VISIT* ON CHARACTERIZATION OF FAULTS AND FRACTURES NEAR YUCCA MOUNTAIN AND STRATIGRAPHY, STRUCTURE, AND ROCK PROPERTIES ALONG THE EXPLORATORY STUDIES FACILITY (ESF) NORTH RAMP

DATE: May 2-5, 1994

TIME: See agenda (Enclosure 1) for daily times

LOCATION:** Nevada Test Site and Yucca Mountain area, Nevada

PURPOSE: To discuss DOE's progress in the characterization of faults and fracture networks at Yucca Mountain and to apprise the NRC staff of the current understanding of stratigraphic and structural data collected along the path of the ESF prior to initiation of large-scale tunnel boring activities.

PARTICIPANTS:

<u>NRC</u>	<u>DOE</u>	<u>State of Nevada</u>
C. Abrams	C. Macaluso	T. Hickey
K. McConnell	T. Bjerstedt	C. Johnson
A. Ibrahim	M. Tynan	
J. Trapp		

* Meetings and technical exchanges between NRC and DOE are open to members of the public, Petitioners, intervenors, or other interested parties wishing to attend as observers pursuant to the spirit of "Open Meeting Statement of NRC Staff Policy," 43 Federal Register 28058, dated June 28, 1978, which details the open meeting policy for applicants and licensees.

** Permission to gain access to the facilities at Yucca Mountain must be obtained from DOE, Yucca Mountain Project Office (YMP). Those persons wishing to attend the site visit should mail or fax the information requested on the enclosed form (Enclosure 2) to Ms. Carlene Hill, SAIC, 101 Convention Center Dr., Las Vegas, NV 89193, Fax (702) 794-5348, Verify (702) 794-7375, at least 14 days prior (30 days for foreign nationals) to the site visit.

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Affected Local Governments

S. Bradhurst, Nye County, NV
 D. Bechtel, Clark County, NV
 V. Poe, Mineral County, NV
 C. Schank, Churchill County, NV
 R. Williams, Lander County, NV
 B. Mettam, Inyo County, CA

M. Baughman, Lincoln County, NV
 F. Sperry, White Pine County, NV
 P. Niedzielski-Eichner, Nye County, NV
 L. Fiorenzi, Eureka County, NV
 J. Hoffman, Esmeralda County, NV
 L. Bradshaw, Nye County, NV

Charlotte E. Abrams, Senior Project
 Manager
 High-Level Waste and Uranium Recovery
 Projects Branch
 Division of Waste Management

cc: J. Meder, NV
 S. Goldberg, OMB
 D. Weigel, GAO
 P. Meyer, NAS
 W. Barnard, NWTRB
 A. Kadak, YAEC
 R. Newlin, OPA

Enclosures: Site Visit Itinerary
 Site access form

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**DOE/NRC SITE VISIT
CHARACTERIZATION OF FAULTS AND FRACTURES NEAR YUCCA MOUNTAIN,
AND STRATIGRAPHY, STRUCTURE AND ROCK PROPERTIES ALONG THE
EXPLORATORY STUDIES FACILITY NORTH RAMP
May 2-5, 1994**

Monday, May 2, 1994*

- 7:30 a.m.** Meet at Nevada Test Site (NTS) Gate 510 for badging
- 8:00** Presentations at Area 25 Field Operations Center (FOC)
Introductions
- 8:10**** Characterization of faults and fractures; update on the study:
Structural Features in the Site Area (8.3.1.4.2.2)
- 8:50** Stratigraphy, structure and stratigraphic nomenclature
- 9:30** Rock properties and north ramp stratigraphy/structure; NRT1 Trench
- 10:20** BREAK
- 10:35** Mapping of the ESF: status, results, plans
- 11:30** Vertical seismic profiling, reflection/refraction studies
- 12:30** LUNCH, discussion
- 1:00** North ramp reflection/refraction
- 1:40** Fracture network/fault studies Fran Ridge, Ghost Dance and
Sundance faults
- 2:40** ESF safety training
- 2:55** Depart FOC for North Portal
- 3:30** Arrive North Portal, tour ESF and test alcove
- 5:30** Depart for exit via Mercury Gate 100

*** Participants will be expected to provide their own lunches and beverages for the site visit. Water will be available.**

**** Times for presentations and field stops are tentative in order to allow sufficient time for discussion and questions. Ending times for each day's itinerary will be adjusted if additional time is needed.**

**DOE/NRC SITE VISIT
May 2-5, 1994**

Tuesday, May 3, 1994*

- 7:30 a.m.** Meet at NTS Gate 510 for badging
- 8:00**** Presentations at FOC
Seismic refraction, Windy Wash
- 8:40** Status of systematic drilling program
- 9:20** Use of site data in ESF design
- 9:50** BREAK
- 10:05** Trenching activities; Solitario Canyon, Bare Mtn., Alice Ridge
- 10:45** Status of Midway Valley studies
- 11:30** Structural model of the Yucca Mountain Region, significance of northwest oriented structural features, and structural controls on the steep hydraulic gradient
- 12:30** LUNCH and discussion
- 1:00** Depart for Fran Ridge
- 1:30** Arrive Fran Ridge. Discuss pavement study.
- 2:30** Discussion of large block experiment
- 3:00** Depart for Ghost Dance Pavement, Antler Ridge
- 3:30** Discussion of Ghost Dance and Sundance fault systems
- 6:00** Depart for exit via Mercury Gate 100

*** Participants will be expected to provide their own lunches and beverages for the site visit. Water will be available.**

**** Times for presentations and field stops are tentative in order to allow sufficient time for discussion and questions. Ending times for each day's itinerary will be adjusted if additional time is needed.**

**DOE/NRC SITE VISIT
May 2-5, 1994**

Wednesday, May 4, 1994*

- 7:30 a.m.** Meet at NTS Gate 510 for badging
- 8:00** Depart for north side of Exile Hill, visit NRT-1 trench
- 8:30**** NRT-1 trench discussion
- 9:30** Depart for SD-12 location
- 9:45** SD-12 location; observe borehole drilling; discussion
- 10:15** Depart for Sundance exposure, east end of Antler Ridge
- 10:30** Sundance fault, east end of Antler Ridge near UZ-16, discussion
- 11:10** Depart for north side of Antler Ridge (eat lunch in transit)
- 11:30** Arrive north side of Antler Ridge in Split Wash area for hike to location of Sundance/Ghost Dance fault systems' intersection; discussion
- 1:00** Walk to Sundance "discovery" outcrop, Split Wash; examine outcrop and discuss Sundance fault system
- 2:10** Depart Split Wash area for Paintbrush Canyon fault trenches, north end of Alice Ridge
- 2:40** Discussion at Paintbrush Canyon trench location, Alice Ridge
- 4:00** Depart Alice Ridge for exit via Mercury Gate 100

*** Participants will be expected to provide their own lunches and beverages for the site visit. Water will be available.**

**** Times for presentations and field stops are tentative in order to allow sufficient time for discussion and questions. Ending times for each day's itinerary will be adjusted if additional time is needed.**

**DOE/NRC SITE VISIT
May 2-5, 1994**

Thursday, May 5, 1994*

7:30 a.m. Meet at Steve's Pass, Crater Flat
8:00 Arrive BMT-1 trench; discussion**
9:00 Travel to BMT-2
9:30 Arrive BMT-2; discussion
10:30 Depart for east side of Crater Flat
11:00 Discussions at trenches T-8, T-10, and others (lunch at trench sites)
3:30 Closing discussions and questions
4:00 Depart NTS via Mercury Gate 100

*** Participants will be expected to provide their own lunches and beverages for the site visit. Water will be available.**

**** Times for presentations and field stops are tentative in order to allow sufficient time for discussion and questions. Ending times for each day's itinerary will be adjusted if additional time is needed.**

BADGING INFORMATION REQUIRED FOR ACCESS TO THE NEVADA TEST SITE FOR U.S. CITIZENS ONLY

NAME OF GROUP _____ DATE OF VISIT _____

LAST NAME	FIRST NAME	MIDDLE INITIAL (MI) (IF NO MI WRITE NMI)
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SOCIAL SECURITY NO. _____

DATE OF BIRTH _____ PLACE OF BIRTH _____

NATURALIZATION CERTIFICATE NUMBER _____

JOB TITLE _____

COMPANY NAME _____

COMPANY ADDRESS _____

PHONE # _____

HOME ADDRESS _____

PHONE # _____

CITIZENSHIP _____

NOTE: ORIGINAL NATURALIZATION CERTIFICATE IS REQUIRED AT TIME OF BADGING