

*Rec'd with letter dtd.
8/18/95*

MINUTES OF THE JULY 19, 1995
U.S. NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY
TECHNICAL MEETING ON THE EXPLORATORY STUDIES FACILITY

On July 19, 1995, staff from the U.S. Nuclear Regulatory Commission met with representatives of the U.S. Department of Energy (DOE) to discuss items of mutual concern regarding progress in DOE's Exploratory Studies Facility (ESF) at Yucca Mountain: tunnel boring, the drilling, testing and sampling program, the status of ESF and seismic design and the results of NRC's in-field verification. The meeting, held by videoconference between DOE facilities in Washington, D.C. and Las Vegas, Nevada, was convened at 1:00 PM EDT. Other attendees represented the State of Nevada Nuclear Waste Project Office, the Environmental Protection Agency, the United States Geological Survey, the National Congress of American Indians, DOE's Civilian Radioactive Waste Management System Management and Operating Contractor (M&O), Weston, and NRC's Center for Nuclear Waste Regulatory Analysis. Attachment 1 provides the attendance lists at the two videoconference locations. Attachment 2 is the meeting agenda.

DOE's representatives provided an update on construction of the ESF north ramp. Attachment 3 provides details on progress of the tunnel boring machine (TBM). The head of the TBM had entered the Topopah Springs welded tuff and was still going through blocky ground requiring the use of steel sets. Progress was slightly ahead of schedule. To facilitate smoother operation of the TBM several modifications have been adopted, including the use of a turbo boost to increase oil flow, which has halved the time required for the grippers to act. The blasting for Test Alcove 2 has gone well. Controlled blasting techniques are being used throughout as required. It was noted that the blasting plan becomes part of the excavation records. At the surface, the water tanks on Exile Hill have been completed and work on the booster pump station and the change house is under way.

In its next presentation, DOE updated the ESF drilling, sampling and testing program. Attachment 4 provides an overview of work in boreholes and trenches that has been completed and is planned, the status of installing and monitoring pneumatic instrumentation, and a summary of ESF test activities. In September, testing of hydrologic properties of the Bow Ridge fault in Alcove 2 and excavation of Alcove 3 are scheduled to begin; testing in Alcove 1 continues. Photographs were shown that reveal some geologic features for which the identification is not yet fully agreed upon. They have been determined to be non-reportable geologic features. In response to a question from NRC staff, it was noted that a copy of the procedure for determining whether a geologic feature is reportable, which has been modified to address comments (effective date, July 24, 1995), will be made available to NRC's on-site representatives.

A discussion of the status of ESF design followed. Progress on ESF design packages and the design of the integrated data and control system, the North Portal standby power generators, Alcoves #3 and #4, and the ESF main drift was discussed. The determination of importance evaluation for the ESF main drift, considered the most important step prior to approving specifications and drawings, was approved July 14. A number of questions about design and construction were discussed. Invert segments are being redesigned for cost effectiveness. DOE noted that it is dividing design packages into smaller

units and will be distributed for "external review." NRC noted that its role is that of observer, rather than reviewer, and NRC should receive only information or courtesy copies. NRC desires a good flow of information, but should not be part of the approval process. The schedule for design of the ESF main drift and planning the GROA/ESF interface was presented. In answer to a question about progress on a response to the corrective action request (CAR) on requirements flowdown (YMQAD-94-C-100), DOE stated that flowdown has been addressed within the M&O and will be in the July 31 response to the CAR. Changes and considered changes to streamline the M&O review and approval process were discussed. Typically there will be no design review meeting, for example, and each review is shorter due to the reduced scope of each review. An update on improvements in the design control process was discussed in response to a prior request because design documentation was not in compliance with QA procedure requirements. An independent checking group has been established to check all design products. Several problems in process design control, their impacts and lessons applied were discussed. Finally the formation and the role of the Office of Product Integrity was discussed. In answer to a question regarding the differences in the roles of the checking group and the Office of Product Integrity (OPI), it was explained that the OPI provides assurance to management through an independent check which is simultaneous with external review. More detail is given in Attachment 5.

The last presentation addressed the revisions to the design requirements documents. The status of revisions in site design and test requirements, engineered barrier design requirements, exploratory facility design requirements, surface-based test requirements and repository design requirements are shown in Attachment 6.

In closing remarks it was agreed to set up a phone call to clarify the nature of NRC's role in receiving courtesy copies of ESF design documents.

Pauline P. Brooks 8/17/95

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High-Level Waste & Uranium Recovery
Projects Branch
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Office of Nuclear Material Safety
U.S. Nuclear Regulatory Commission

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Office of Civilian Radioactive
Waste Management
U.S. Department of Energy

DOE/NRC
Exploratory Studies Facility Technical Meeting
July 19, 1995
Videoconference: DC\Las Vegas
Washington, DC Attendees

NAME	ORGANIZATION	PHONE
Chris Einberg	DOE/HQ	202-586-8869
Mark Delligatti	NRC	301-415-6620
Bret Leslie	EPA	202-233-9201
Pauline Brooks	NRC	301-415-6604
Mysore Nataraja	NRC	301-415-6695
John L. Russell	CNWRA	301-881-0289
Banad Jagannath	NRC	301-415-6653
Tom Rogers	M&O/NCFS	202-488-2320
Ray Wallace	USGS	202-586-1244
Jim York	Weston	202-646-6650
Ram Murthy	DOE/RW3.1	202-586-1239
L. J. Hopkins	NCAI	202-466-7767
Keith McConnell	NRC	301-415-7289

DOE/NRC ESF TECHNICAL MEETING

July 19, 1995

Videoconference: DC\Las Vegas

Las Vegas Attendees

NAME	ORGANIZATION	TITLE
Steve Frishman	NV/NMPO	
V. Lewis Killpack	TRW	Consultant
Phil Hammond	M&O	Sr. Engineer
William Boyle	DOE	Team Lead, Geoengineer
Nick Stellavato	Nye C.	OSR
Alden Sigrest	M&O	Mgr. MGDS Mgr.
Dana Rogers	M&O	MGDS-ESF-Subsurface
Tim Hawe	DOE	Physical Scientist
Dick Snell	M&O	Mgr.-Eng. & Integ.
Tom Fortner	DOE	Const. Mgr. DOE
Dick McDonald	M&O	Const. Mgr.
Richard Crann	DOE AMAFO	AMEFO
M. Sam Rindskoff	M&O	MGDS Requirements Mgr.
Carol Hanlon	DOE\AMSL	Physical Scientist
William Belke	NRC	OSR

**DOE-NRC TECHNICAL MEETING AGENDA
EXPLORATORY STUDIES FACILITY DESIGN AND CONSTRUCTION
VIDEOCONFERENCE**

**Bank of America Center, Blue Room, Las Vegas, Nevada
Forrestal Building, Room DC1 (1E267), Washington, DC
July 19, 1995**

10:00 PDT (1:00 EDT)	Opening Remarks	DOE, NRC, NV, AUG
10:15 PDT (1:15 EDT)	ESF Construction Update <ul style="list-style-type: none">- Alcove #2- Blasting Process- Feedback of Monitored Data	DOE
10:45 PDT (1:45 EDT)	Drilling, Testing, and Sampling Program Update	DOE
11:15 PDT (2:15 EDT)	ESF Design Status <ul style="list-style-type: none">- Design Progress Update- External Review Process- Design Control Process	DOE
11:45 PDT (2:45 EDT)	Requirements Traceability Update <ul style="list-style-type: none">- Automated Requirements Monitoring System- Requirements Traceability Network System- Requirement Document Revisions	DOE
12:15 PDT (3:15 EDT)	Closing Remarks and Discussion	DOE, NRC, NV, AUG
12:45 PDT (3:45 EDT)	Adjourn	

YUCCA MOUNTAIN PROJECT

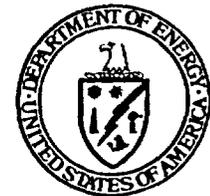
Studies

DOE-NRC Technical Exchange Meeting on The Exploratory Studies Facility

ESF Construction Update

Presented by:

Dick McDonald
Construction Manager
Management and Operations Contractor/M-K



U.S. Department of Energy
Office of Civilian Radioactive
Waste Management

July 19, 1995

OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

CAR NO. YM-91-50
DATE: 9-16-91
SHEET: 1 OF 1

CORRECTIVE ACTION REQUEST
(continuation sheet)

1. **SUPPLEMENTAL RESPONSE FOR DEFICIENT CONDITION NOTED IN
CORRECTIVE ACTION REQUEST NO. YM-91-50**

The following information is provided to supplement the 6-28-91 and 8-1-91 responses.

- A. **Extent of Deficiency:** The investigative actions are complete. Technical Reviewer Selection Forms for YMP-USGS technical procedures have been examined. In addition to the form originally cited in this CAR, five (5) other forms were corrected.
- B. **Root Cause:** There has been no change to the root cause provided in the 6-28-91 response as a result of the investigation.
- C. **Remedial Action:** The discrepant Technical Reviewer Selection Forms identified during the investigative phase have been corrected. The remedial actions are complete.
- D. **Corrective Action to Prevent Recurrence:** Appropriate Branch Chiefs were notified of the discrepant conditions. By working with the QA Implementation personnel and by correction of the forms, the Branch Chiefs are now aware of the proper statements to be included on the Technical Reviewer Selection Forms. No additional actions are needed.

RESPONSE APPROVED BY: *Larry R. Hayes* DATE: 9/16/91
For Larry R. Hayes, YMP-USGS Technical Project Officer

Response Accepted: *S. Jones* Date: 9/30/91
QAR

Response Accepted: *Catherine Hampton* Date: 10/2/91
OQA

ltd dtd 9/17/91 - Cheney to Norton