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TRIP REPORT

SUBJECT: Appendix 7 Meeting on Features, Events, and Processes and Yucca Mountain Tour (20.01402.761)

DATE/PLACE: September 7-10, 1999, Las Vegas, Nevada

AUTHOR: Michael Smith

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AUTHOR: Michael Smith

PERSONS PRESENT:

September 8, 1999 (meeting)

NRC	CNWRA
Dave Esh	Melissa Nugent
James Firth	Bret Leslie
	David Pickett
	Michael Smith

September 9, 1999 (tour)

NRC	CNWRA
Bill Belke	Sean Brossia
Dave Esh	Melissa Hill
Bret Leslie	Melissa Nugent
	Michael Smith

Note: A complete attendance roster is attached (attachment 1)

BACKGROUND AND PURPOSE OF TRIP:

September 8, 1999: Appendix 7 meeting between the U.S. Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) to discuss features, events, and processes (FEPs) database for the proposed Yucca Mountain (YM) repository.

September 9, 1999: Tour of the proposed YM Exploratory Studies Facility.

SUMMARY OF PERTINENT POINTS:

- Current FEPs analysis is based on current enhanced design alternative (EDA)-2 design. Future FEPs screening would have to account for new designs.
- The most conservative models and parameters will be used for FEPs screening. Different models and parameters may be used for individual FEP screening.

- DOE documents probability only for retained primary FEPs and low-probability screenings. The Issue Resolution Status Report (IRSR) calls for documenting probability for each category.
- Current status of disruptive FEPs screening: igneous activity is retained; criticality is screened due to low probability; seismic rockfall is screened due to low consequence; other seismic effects are excluded (i.e., direct faulting and seismic pumping). Human intrusion is a special case.
- The term significance has still not been defined.
- Methods and assumptions are very similar to that presented by Peter Swift at the Nuclear Energy Agency meeting held May 1999 (G. Wittmeyer was in attendance). This information will next be reported in the Methodologies section of the Total System Performance Assessment site recommendation.
- DOE requests feedback on the FEP database. DOE desires feedback on the basis of utility, not content (i.e., what additions, changes, and new fields would be helpful for NRC).

SUMMARY OF ACTIVITIES:

Attended Appendix 7 FEPs meeting (agenda included as attachment 2). Attended YM tour. Reviewed the following documents for Bret Leslie (NRC): U.S. Department of Energy Review of U.S. Nuclear Regulatory Commission's Total System Performance Assessment and Integration Issue Resolution Status Report, Revision 1; and Repository Safety Strategy: U.S. Department of Energy's Strategy to Protect Public Health and Safety After Closure of a Yucca Mountain Repository, YMP/96-01, Revision 3, September 1999.

CONCLUSIONS:

None.

PROBLEMS ENCOUNTERED:

None.

PENDING ACTIONS:

There was some discussion of holding a follow-up Appendix 7 FEPs meeting in mid-November to discuss inclusions/exclusions of FEPs, since DOE Analysis and Model Report(AMR)/Process Model Reports (PMRs) will not be available until March 2000-May 2000 and the NRC responses to the DOE AMR/PMRs are due at the same time. To have a useful review, NRC will need to see FEP information prior to publication. Formal results will not be available (against DOE rules, since publications will not be reviewed), but an Appendix 7 meeting could be used to share information. It was not clear if a new Appendix 7 meeting would be organized, or if this topic would be added to the agenda of another Key Technical Issue Appendix 7 meeting.

RECOMMENDATIONS:

None.

SIGNATURES:

MS for Michael Smith
Michael Smith
Research Engineer

10/8/99
Date

CONCURRENCE:

Gordon Wittmeyer
Gordon Wittmeyer, Manager
Performance Assessment Element

10/8/99
Date

Budhi Sagar
Budhi Sagar
Technical Director

10/11/99
Date

attachments
smith app7 trip rpt.wpd