



Lawrence Livermore National Laboratory

NUCLEAR SYSTEMS SAFETY PROGRAM

February 17, 1984
EG-84-011

Dr. Robert E. Jackson, Chief
Geosciences Branch
Division of Engineering
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: Letter Report Covering the January 18-20, 1984 EPRI
Data Needs Workshop - Task 5 of the Project
Probabilistic Assessment of the Seismic Hazard of EUS
Power Plant Sites (FIN A0448)

Dear Dr. Jackson:

At your request I attended the subject meeting. As members of your staff were also in attendance, I will only give you my impressions of the meeting. Overall, the meeting was well organized and run getting the EPRI study off to a good start. I want to underline my favorable impression because most of the comments that follow are negative and I do not want these few negative comments to make it appear that I was not favorably impressed by the meeting.

Attachment 1 gives EPRI's objectives for the meeting. Overall, I feel that they achieved most of their objectives. However, I feel that they failed to completely fulfill several objectives. The primary reason for this failure was, in my opinion, because a number of the members of the Tectonic Evaluation Teams were not familiar with probabilistic seismic hazard analysis methodology and how their input will be used in a seismic hazard analysis. Thus, the discussion sometimes lacked focus. To this end I thought that some of the presentations on the various tectonic models suffered because of this lack of understanding and focus by the presentors.

Another consequence of this lack of understanding was, in my opinion, that different Team Members wanted to look at all of the data on a very fine scale. I do not know exactly how much time each Team Member can devote to the Project but I am sure that they will have to limit their effort in order to complete their work on schedule and within budget.

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I personally have a hard time understanding EPRI's tectonic model/tectonic framework concepts which appears to be a key distinction. I wonder how many other people also have this problem?

I thought that the Facilitators stepped out of their role too often. For this meeting on data needs, I do not view it as a problem because it was easy to get hung-up on relatively unimportant details. However, in future meetings this could present a problem and result in biasing the results. Along these same lines, I had the perception that certain strong-willed/dominant personality types to some extent dominated the discussions and conclusions reached. At this meeting, I do not view it as a problem but at future meetings it could present major problems and result in biases being introduced. This may have been a somewhat false perception on my part but it seems important to mention - particularly if others had the same perception.

In summary, I want to reiterate that overall I thought that the meeting was well organized and run - particularly considering the large size of the meeting. There were a number of useful discussions and I was pleased to see that the interaction between members of the Tectonic Evaluation Teams and other consultants did not appear to be inhibited by the size of the meeting. I think that EPRI's project is off to a good start.

If there is any added information I can supply to you, please let me know.

Sincerely,



D. L. Bernreuter
Principal Investigator

DLB:tp

Attachment

cc: E. Pentecost, NRC/DE
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ATTACHMENT 1

Statement of Purpose and Objectives of the Data Needs Workshop

The purpose of the Data Needs Workshop is to review the Data Management Plan and to determine the scope of the additional data to be acquired by the Tectonic Evaluation Contractors for Phase I of the Tectonic Evaluation Project.

Objectives

1. To develop a complete and exhaustive inventory of tectonic models (hypotheses) that may cause moderate and large earthquakes in the eastern United States.
2. To assess the tectonic models with regard to observational data.
3. To consider the implications of these models with regard to validation by observational data.
4. To define data needed to aggregate the tectonic models into a tectonic framework and alternative seismic source zones.
5. To define data needed to evaluate seismicity parameters for each alternative source and to assess uncertainty.
6. To define the specific scope of data compilations.
7. To prioritize data needed.
8. To review and finalize the Data Management Plan.