

RAS 6947

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October 28, 2003 (11:10AM)

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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

SUBJECT: *Original Summary Disposition Declarations in MOX CAR  
Proceeding, Docket No. 70-3098*

Dear Mr. Julian,

Enclosed please find the original signature pages of the Declaration of Dr. Leland Timothy Long Regarding GANE Contention 3 (September 16, 2003) and the Supplemental Declaration of Dr. Leland Timothy Long Regarding Contention 3 (September 24, 2003). Dr. Long's declarations were filed in support of Georgians Against Nuclear Energy's Opposition to Duke Cogema Stone & Webster's Motion for Summary Disposition of GANE Contention 3 (September 16, 2003), and Georgians Against Nuclear Energy's Response to New Facts and Arguments in NRC Staff's Response to Duke Cogema Stone & Webster's Motion for Summary Disposition of GANE Contention 3 (September 26, 2003).

I regret that I was unable to file the originals at that time because I had not yet received them.

Sincerely,



Diane Curran

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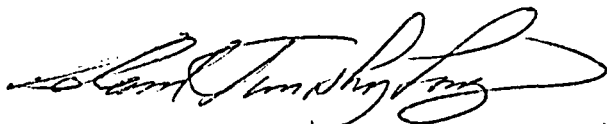
LLNL computations for 10,000 year return periods. The only possible difference would be introduced by the truncation of larger magnitude earthquakes by using the characteristic earthquake model. This would result in a slightly lower hazard for the same large time period.

71. In Statements 51-53, DCS argues that the USGS hazard maps are based on "firm-rock" conditions prevailing in the western United States, and which do not exist beneath the MOX Facility. According to DCS, applying USGS firm-rock assumptions to a hard-rock site overestimates the ground motions at the MOX Facility. This is not a simple issue. Such conditions would be common for western data. However, the data for the eastern United States would come from sites of considerably higher velocity. Hence, I would have to see how the data actually have figured into the computations of site amplitude. If the USGS used different relations for the East and West this could negate the difference in velocity. This appears to be a new topic, not addressed in Dr. Stepp's declaration.

#### **Response to Statements in DCS Brief**

72. In the following paragraphs, I will respond to factual assertions that are not covered by my response to the affidavit of Dr. Stepp and the Statement of Material Facts.

73. In footnote 2 of its motion, DCS claims that I made substantive changes to the transcript of my deposition. This claim is false. The vast majority of the changes represent corrections and clarifications in syntax and/or word choice. Occasionally I had to change the substance of a sentence in order to make it clear or sensible. It was a full day before the court recorder learned the meaning and spelling of some of the technical words. Sentence structure was often poorly or not at all punctuated. Moreover, many of the questions and answers were recorded in a way that was not accurate, and yielded a nonsensical result. In such circumstances, it was not possible to make a simple spelling or grammatical correction, and I had to make an educated guess at what the correct transcription would have been. Moreover, in response to many questions that were poorly worded or devised to solicit misleading answers, I was required to modify my response mid-sentence in order to go over background and provide qualifications. Considering these handicaps and the limited technical understanding of the DCS counsel, there were remarkable few corrections. It should also be noted that DCS counsel had immediate access to the transcript, which was not available to me.

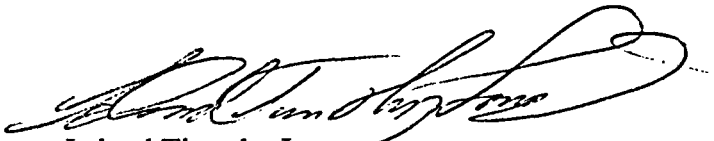


Leland Timothy Long

September 16, 2003

New Madrid seismicity. The southeastern Tennessee seismic zone is in a remote area where many older events have gone undetected and a major event would likely have occurred prior to recorded history. Thus, Dr. Stamatakos does not have a valid basis for his conclusion that a large earthquake is unlikely in the southeastern Tennessee Seismic Zone. The lack of any historical or geological evidence for geologically-recent, large-magnitude earthquakes in the southeastern Tennessee Seismic Zone could simply be a matter of timing.

11. I disagree with Dr. Stamatakos's assertion in paragraph 23 that the Campbell attenuation relation would be appropriate for the Coastal Plain of South Carolina. The Campbell attenuation relation is a generalized calculation for the eastern United States. The geological characteristics of the Coastal Plain of South Carolina are notably different from the major portion of the rest of the eastern United States. For example, the thickness of the crust in the Coastal Plain is only about 30 km, in comparison to an average thickness of 40 km for the continental eastern United States. As discussed in my September 16, declaration, crustal thickness and structure have an effect on attenuation relations.



Leland Timothy Long

September 24, 2003