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May 14, 2008

Mr. Nilesh Chokshi
Division of Site and Environmental Reviews
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: EPRI White Papers in Support of New Plant Applications

Project Number: 689

Dear Mr. Chokshi:

Based on the outcome of the February 13th meeting between the NRC staff and the industry's Seismic Issues Task Force, the industry took an action to develop three white papers to resolve outstanding generic issues. These documents were prepared with support from the Electric Power Research Institute (EPRI). The three final white papers are enclosed for NRC staff review.

The first white paper, *Guidance for Updating Accepted Existing Seismic Source Models, Given New Data or New Information*, provides guidance on how to update seismic source models. This document is designed to provide a roadmap and guidance for applicants who encounter new data or information as part of the update of seismic source components of accepted existing PSHA models. The document describes the types of information that would require further evaluation and a process for conducting the evaluation and incorporating the results into the PSHA models as necessary.

The second document, *White Paper on Seismic Hazard in the Eastern Tennessee Seismic Zone (ETSZ)*, is a generic sensitivity analysis to evaluate the impact of new information on the ETSZ. This sensitivity study is an example of how to apply the guidance provided in the first white paper. The study has been performed to evaluate a generic site within the ETSZ to address questions regarding the effects of new interpretations of existing data within the region from two additional studies. The conclusions of this white paper support the basis for no adjustments to the ETSZ as currently documented in the ESP and COL applications submitted to date.

The third document, *White Paper on Influence of Dames & Moore Interpretations for Seismic Hazard Studies in the Southeastern US*, was performed at the request of the NRC. This sensitivity study evaluates the specific effects of modifying the seismic source model (probability of activity) of the

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Dames and Moore Earth Science Team (EST) as originally developed under the EPRI SOG. This is one interpretation out of six EPRI-SOG teams for the Central Eastern United States (CEUS), and is an example of the broad range of diverse, informed scientific opinion that is sought in a large seismic hazard project. Until data are collected that render such opinions invalid, or until the EPRI-SOG study is updated by another study of similar breadth and scope, the Dames & Moore interpretation should continue to be considered one valid interpretation among six.

For these reasons, and because the potential change in Dames & Moore P_a values results in estimated changes to mean hazard and to mean seismic core damage frequency that are insignificant, this study validates the ESP and COL applications submitted to date that use the original P_a values for the Dames & Moore team.

We appreciate your review of these documents and look forward to answering any questions you may have at our upcoming meeting on May 23. If you have any questions, please contact Leslie Kass (lck@nei.org; 202-739-8115) or me.

Sincerely,



Adrian P. Heymer

Enclosure

c: Dr. Rebecca Karas, U.S. Nuclear Regulatory Commission
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