June 14, 2007

MEMORANDUM TO: Nilesh C. Chokshi, Deputy Director
Division of Site and Environmental Reviews
Office of New Reactors

FROM: William D. Reckley, Branch Chief ***/RA by Leslie Perkins for/***
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SUBJECT: SUMMARY OF MAY 31, 2007, PUBLIC MEETING WITH INDUSTRY ON SEISMIC ISSUES RELATED TO NEW PLANT LICENSING

On May 31, 2007, the Nuclear Regulatory Commission (NRC) staff met in a public meeting with representatives from the Nuclear Energy Institute (NEI), Electrical Power Research Institute (EPRI), NSSS Supplier, expected new plant applicants, and their contractors to discuss the resolution of several issues related to seismic design requirements for new reactors. Following a brief introduction by the NRC staff (Nilesh Chokshi), the industry representatives provided the presentations listed below. The presentation materials are also attached to this meeting summary:

Enclosure	Presentation
1	New Plant Seismic Issues Resolution Program - Attendance List
2	New Plant Seismic Issues Resolution Program - S2.1 Incoherence Project - SASSI-CLASSI Comparisons (ML071590212)
3	Dynamic Soil Testing for COL Applications (ML071580619)
4	New Plant Seismic Issues Resolution Program - High-Frequency Response Effects: Component Screening (ML071580622)
5	New Plant Seismic Issues Resolution Program - High-Frequency Response Effects: Structures, Large Components, Systems (ML071580624)
6	Hard-Rock Coherency Based on Pinyon Flat Data (ML071580626)
7	Definitions: SSE [Safe Shutdown Earthquake] & OBE [Operating Basis Earthquake] (ML01590209)
8	OBE Exceedance Issues (ML071580628)

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A recurring message during the meeting was the importance of establishing and meeting the schedules for the remaining efforts to resolve seismic issues related to new plant licensing. Previous delays in the industry providing material to the NRC staff for review, and reaching a clear understanding for referencing in licensing applications could result in undesired uncertainties in terms of the acceptability of information that applicants will be providing in upcoming applications and the potential delays in review.

The first presentation addressed industry efforts to resolve issues related to differences in the results from the CLASSI and SASSI computer models. The industry team has been able to develop methodologies that appear to provide agreement for various cases considered to date. The industry, through NEI, is preparing to submit: (1) a report on the SASSI/CLASSI comparisons and recommended approaches to address incoherent ground motion, (2) a report providing guidance and recommendations to analysts using the models, (3) a report on hard-rock coherency (see Attachment 4), and (4) a summary of the status and plans for resolving seismic issues for each design center working group (DCWG). The NRC staff reiterated the importance of the industry providing the reports in a timely manner and specifically requested the summary for DCWGs to better inform the agency's planning for pre-application reviews and combined license (COL) applications.

The second presentation addressed industry efforts related to dynamic testing of soils at new nuclear power plant sites. The applicants currently plan to provide information in the COL application on the results of soil testing for which the analyses are complete and describe a program for providing the remaining analyses as they are completed after the application is submitted. The staff stressed that following this approach, the expected variability in the soil data need to be carefully considered and describe in detail in the application. For sites where the applicants follow this approach and expect additional soil data will not be provided until later in the review process, the review schedule may have to take into consideration the additional review time needed for the staff to evaluate the information submitted late. In addition, the staff also discussed that once the actual complete test data are available and provided to the NRC, and if the assumed variability initially submitted does not encompass the actual test data obtained later, the review schedule may be impacted because of the need to re-review portions of the submitted analyses.

The third and fourth presentations related to the industry efforts to resolve high-frequency response effects. The proposed approach for component screening is to identify issues considering potential component sensitivities and existing test data. The staff stated that the industry needs to implement a process of demonstrating adequacy of design for effects of high frequency ground motion through an appropriate sampling process for the structures, systems, and other components. The industry is to provide a schedule when a "white paper" on this issue will be made available to the staff addressing all issues discussed at the meeting.

The industry presentation on coherency models for hard-rock sites was provided via telephone by their contractor, N. Abrahamson. The industry committed to provide in the near future to the NRC staff the data used in the development of the hard-rock coherency model. This would be followed within a month with a report on the hard-rock coherency model and within several months with a comprehensive report documenting soil, soft-rock, hard-rock, and embedded coherency models.

The industry provided a presentation related to SSE and OBE definitions to clarify terminology and establish common understandings for licensing and subsequent operation of new reactors. The primary question relates to the analyses included in the design certification documents (the certified standard design response spectra (CSDRS)) and the plant specific ground motion response spectra (GMRS). The industry proposed to use GMRS as the definition of SSE and maintain CSDRS as a design parameter. The NRC staff took an action to consider the proposal and providing its position. The last industry presentation related to the placement of seismic instruments to satisfy NRC regulations and guidance documents. The NRC staff stated that arguments could be made to justify alternatives but did not foresee revising guidance prior to COL applications expected for later in 2007. Applicants may use available processes to propose approaches different from NRC regulations, NRC guidance documents, or descriptions in design control documents.

The meeting ended with a summary of the action items described above and emphasis on the need to provide the necessary information without delay. Additional meetings and conference calls were encouraged to resolve these issues as quickly as possible.

Enclosures:
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May 31, 2007
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