

May 16, 2005

Mr. Stephen D. Floyd
Vice President of Regulatory Affairs
Nuclear Generation Division
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708

Dear Mr. Floyd:

This response to your letter dated March 2, 2005, takes into consideration the correspondence, dated November 30, 2004, and March 3, 2005, between Adrian Heymer, of the Nuclear Energy Institute (NEI), and Richard J. Barrett, of the U.S. Nuclear Regulatory Commission (NRC). In your letter, you correctly asserted that the NRC has identified two seismic issues in its review of the first three early site permit applications. Specifically, these issues are (1) the significance of high-amplitude, high-frequency ground motion, and (2) the determination of the safe shutdown earthquake ground motion (SSE) using the methodologies described in Regulatory Guide (RG) 1.165. The management and staff of the NRC recognize the importance of resolving these seismic issues.

I agree that the issues are right for consideration, and you correctly ordered the issues in your letter of March 2, 2005. High-frequency ground motion has been a long-term, recurring issue. The Electric Power Research Institute (EPRI) made an extensive effort to resolve this issue, as documented in the 1993 EPRI Topical Report, entitled "Analysis of High-Frequency Seismic Effects" (EPRI TR-102470). EPRI submitted that report for NRC review and acceptance, but little progress has been made following the NRC's request for additional information.

The Office of Nuclear Regulatory Research (RES) staff is already engaged in an effort to resolve these seismic issues associated with RG 1.165 and to investigate the performance-based approach mentioned in your letter for possible incorporation into the revised regulatory guide. At this time, preliminary review has identified substantive issues that require further assessment from the NRC staff. The NRC has formed a Seismic Issues Technical Advisory Group (SITAG) to provide a focused effort toward resolution of the relevant seismic issues and make recommendations to NRC management. The NRC contact is Dr. Andrew J. Murphy, Chairman of the NRC's Seismic Issues Technical Advisory Group, at (301) 415-6011 or by email to AJM1@nrc.gov. The NRC staff is prepared to interact with industry representatives, through NEI, to develop a common understanding of the issues that concern the industry such that their resolution is addressed in the revision of the regulatory guide.

S. Floyd

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The provisional schedule of meetings attached in your letter is an appropriate starting point. Toward that end, my staff had been in contact with Cedric Jobe of NEI to arrange a first meeting in April to discuss a process for cooperating on the resolution of the seismic issues related to early site permit applications. I understand that the first meeting was postponed to May 25, 2005, because the industry experts would not be ready until that time. We look forward to interacting with representatives from NEI and the industry toward a common understanding of the issue and to develop a resolution to support the NP2010 initiative.

Sincerely,

/RA/

Carl J. Paperiello, Director
Office of Nuclear Regulatory Research

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Office of Nuclear Regulatory Research

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