NUCLEAR ENERGY INSTITUTE

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March 24, 2010

Mr. William Ruland
Director
Division of Safety Systems
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Precedent in Spent Fuel Pool Criticality Analyses

Project Number: 689

Dear Mr. Ruland:

The Nuclear Energy Institute (NEI)[1] is committed to working with the nuclear industry and the U.S. Nuclear Regulatory Commission (NRC) to increase the efficiency with which spent nuclear fuel pool criticality licensing actions are reviewed. To this end, NEI has coordinated public interactions between the NRC and licensees to discuss technical issues related to spent nuclear fuel pool criticality analysis and licensing. During 2009, it became evident that NRC guidance in this area was evolving, and as a result, there has been a reduction in regulatory predictability and an increase in scheduling uncertainty.

At the NEI Licensing Forum in October 2009 and at the NRC's Nuclear Regulatory Conference on March 11, NRC staff stated that an Interim Staff Guidance (ISG) would be developed for spent fuel pool criticality reviews and that a research contract would be issued to provide additional technical basis in this area. Industry and NEI are supportive of these efforts and we believe that both work products would benefit from interaction with industry.

The development of an ISG, and its incorporation into the standard review plan, is an essential, but not sufficient, step in enhancing regulatory predictability. Licensees and NRC staff rely on stable technically sound regulatory precedent when developing and reviewing licensing actions. In the area

[1] NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

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of spent fuel pool criticality analyses, NEI has noticed an apparent erosion of precedent without sufficient technical justification. The attachment to this letter provides four technical areas where NRC communications (to individual licensees and in meetings) have questioned previously acceptable precedent. These areas should be considered and addressed when developing the ISG so that future applicants can appropriately consider regulatory precedent.

If you have any questions, please do not hesitate to contact me (202-739-8122, elr@nei.org).

Sincerely,

Everett L Redmond II

Enclosure

c: Mr. Sher Bahadur, U.S. Nuclear Regulatory Commission
Mr. Robert Nelson, U.S. Nuclear Regulatory Commission
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Mr. Alex Marion, Nuclear Energy Institute
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