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September 4, 2012

Mr. Michael E. Mayfield  
Director, Advanced Reactor Program  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
Mail Stop: T-6E4  
Washington, DC 20555-0001

**Subject:** Development of an Emergency Planning and Preparedness Framework for Small Modular Reactors

**Project Number: 689**

Dear Mr. Mayfield:

The Nuclear Energy Institute (NEI) is developing an industry position paper on the emergency preparedness (EP) framework for small modular reactors (SMRs) for NRC staff review and consideration. This industry position paper is in part a response to SECY-11-0152 and would support the NRC staff's efforts described in that SECY paper.

The SECY discusses the NRC staff's intent to develop a technology-neutral, dose-based, consequence-oriented EP framework for SMR sites that takes into account the various designs, modularity and co-location, as well as the size of the emergency planning zone (EPZ). We appreciate the NRC staff's openness to modernizing the EP framework for SMRs to reflect their potential for reduced source terms and post-accident offsite releases. We understand that ultimately the burden is on applicants to provide an adequate basis for EPZ sizing for NRC staff consideration, including consideration of applicable lessons learned from the accident at the Fukushima Daiichi nuclear power plant in Japan.

While the technical basis for an appropriate EPZ size for a given SMR design will be provided by the designer and/or license applicant within the context of current NRC regulations and guidance, the industry paper will include proposed methods for design/site-specific dose calculations and approaches to confirming defense-in-depth features inherent in SMR designs.

Mr. Michael E. Mayfield

September 4, 2012

Page 2

We agree that a scalable EPZ approach will provide greater transparency in developing and approving the technical and regulatory basis for EP requirements for all stakeholders including local residents, state and local government officials, as well as SMR applicants. Moreover, this approach is consistent with current EP requirements and would not result in a reduction in the protection of public health and safety.

To support the objectives of SECY-11-0152, NEI proposes a meeting in the near future with key stakeholders to discuss the issues raised in the SECY, the industry-proposed approach to establishing the technical basis for modernizing SMR EP, and the path forward for developing a framework for SMR EP. We agree that important topics for further discussion include modularity, co-location and the use of probabilistic risk assessment in support of the technical basis for EPZ sizing.

We will contact your staff to identify a date for the proposed meeting. In the meantime, if you have any questions, please contact me or TJ Kim (tjk@nei.org; 202-739-8128).

Sincerely,



Russell J. Bell

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