UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 18, 2010

Mr. Paul Freeman
Site Vice President
c/o Mr. Michael O'Keefe
NextEra Energy Seabrook, LLC
P.O. Box 300
Seabrook, NH 03874

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE REVIEW OF THE SEABROOK STATION LICENSE RENEWAL APPLICATION (TAC NO. ME4028)

Dear Mr. Freeman:

By letter dated May 25, 2010, NextEra Energy Seabrook, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew the Operating License NPF-86 for Seabrook Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

The request for additional information was discussed with Mr. Rick Cliche, and a mutually agreeable date for the response is within 45 days from the date of this letter. If you have any questions, please contact me at 301-415-1427 or by e-mail at richard.plasse@nrc.gov.

Sincerely,

Richard Plasse, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:
As stated

cc w/encl: Distribution via Listserv

Seabrook Station
License Renewal Application
Request for Additional Information Set 2

RAI 4.2.1-1

Background

The Seabrook Station, Unit 1, license renewal application (LRA) states that fluence values were calculated using the RAMA methodology, which, as noted in the LRA, has not been approved by the U.S. Nuclear Regulatory Commission for generic use at pressurized water reactors. The LRA states,

> *"This prior work has been extended in the Seabrook Station analysis to additional PWR benchmarks and plant-specific dosimetry comparisons, further validating the use of RAMA for all light water reactor designs."*

Regulatory Basis

RG 1.190, RP 1.3.3: The capsule fluence is extremely sensitive to the geometrical representation of the capsule geometry and internal water region, and the adequacy of the capsule representation must be demonstrated.

RG 1.190, RP 1.4: The calculational methodology must be qualified by both (1) comparisons to measurement and calculational benchmarks and (2) an analytic uncertainty analysis. The methods used to calculate the benchmarks must be consistent (to the extent possible) with the methods used to calculate the vessel fluence. The overall calculational bias and uncertainty must be determined by an appropriate combination of the analytic uncertainty analysis and the uncertainty analysis based on the comparisons to the benchmarks.

Request

Please provide documentation of the referenced additional PWR benchmarks and plant-specific dosimetry comparisons to demonstrate adherence to the regulatory positions described above.

ENCLOSURE

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Letter to P. Freeman from R. Plasse dated November 18, 2010

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