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US Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Submittal of ABWR Licensing Topical Report (LTR)
NEDE-33330P "Hydrogen Recombiner Requirements Elimination"**

Reference: Letter MFN 017-97, J. Quirk to NRC, *ABWR Design Control Document, Revision 4*, dated March 28, 1997, Docket No. 52-001

This is the ninth of a number of ABWR-related LTRs GE plans to submit and which have been discussed in South Texas Project (STP) 3&4 project meetings with the NRC. In support of the ABWR Design Centered Working Group (DCWG) plans, GE requests a generic review and approval of the subject LTR in advance of any future combined license application (COLA) submittals. Note that the submittal is the result of design detailing performed for ABWRs in the US and in Asia and contributes to standardization. In particular, this LTR eliminates hydrogen recombiners and modifies the safety classification of containment atmosphere monitoring requirements consistent with NRC initiatives to implement risk informed licensing bases at US plants.

The requirements identified in 10CFR 50.44 were amended following the ABWR design certification. The amended rule eliminates the requirements for hydrogen recombiners and relaxes the requirements for hydrogen and oxygen monitoring. This LTR establishes the regulatory and technical basis for implementing the revision to the federal regulations.

Currently, 10 CFR Part 52 does not permit generic changes in design certifications, except for limited purposes that are not applicable in this case. However, as identified in SECY-06-0220 and the associated Staff Requirements Memorandum

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dated April 11, 2007, the NRC is planning to revise 10 CFR 52.63 to allow for certain types of changes to a design certification. Therefore, GE is providing LTR Appendix A to address the anticipated and preferred regulatory path of DCD amendment, so that the NRC technical review can proceed in parallel while the regulatory environment matures. The appendix demonstrates that the proposed addition is acceptable as a generic change to the DCD under the pending revision to 10 CFR 52.63.

Should the NRC determine otherwise, the enclosed LTR should be considered as a generic submittal that, if approved, would allow future applicants to reference the LTR as a basis for a departure from the DCD. Appendix A to the LTR provides the justification for the departure under Section VIII.B.5 of the ABWR design certification rule.

Enclosure 1 contains GE proprietary information as defined by 10 CFR 2.390. Security related information is also included. GE customarily maintains this information in confidence and withholds it from public disclosure. The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GE. GE hereby requests that the information of Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17. A non-proprietary version is contained in Enclosure 2.

If you have any questions about the information provided here, please contact me at 910-602-1885.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joe A. Savage'.

Joseph A Savage
Project Manager, ABWR Licensing

- Enclosures:
1. NEDE-33330P, *Advanced Boiling Water Reactor (ABWR) with Alternative RCIC Turbine-Pump Design*, May 2007 - Proprietary
 2. NEDO-33330 "Hydrogen Recombiner Requirements Elimination," May 2007 - Non-Proprietary
 3. Affidavit, Joseph A Savage, dated May 18, 2007



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cc: JA Savage GE (Wilmington w/ enclosure)
BE Brown GE (Wilmington w/o enclosure)
GF Wunder NRC (w/ enclosure)
MA McBurnett STP (w/ enclosure)
eDRF 0000-0067-1515