

June 27, 2007

MEMORANDUM TO: Mohammed Shuaibi, Chief
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

FROM: Joseph Donoghue, Chief **/RA/**
Reactor systems, Nuclear performance, and
Code Review Branch
Division of Safety Systems and Risk Assessment
Office of New Reactors

SUBJECT: Request for Additional Information for Evaluating General Electric
Topical Report, NEDE-33299, "Advanced Boiling Water Reactor with
Alternative Reactor Core Isolation Cooling Turbine-Pump Design"

Reactor systems, Nuclear performance, and Code Review Branch reviewed General Electric (GE) Topical Report, NEDE-33299, "Advanced Boiling Water Reactor with Alternative Reactor Core Isolation Cooling Turbine-Pump Design", December 2006. Questions on the report are identified in the Enclosure and they may be sent to GE for a prompt response.

ENCLOSURE: Request for Additional Information for Advanced Boiling Water Reactor
Topical Report NEDE-33299.

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DISTRIBUTION

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DATE	6/27/07	6/27/07	6 /27/07

OFFICIAL OFFICE RECORD

Request for Additional Information for Advance Boiling Water Reactor
Topical Report NEDE-33299

1. The current Reactor Core Isolation Cooling (RCIC)/High Pressure Coolant Injection (HPCI) Terry turbine design used in the operating plants was tested with water for durability and reliability. Whether similar tests were already performed for the proposed design? If not, does GE plan to perform similar tests?
2. In Page 7 of NEDE-33299,, RCIC system has been shown to comply General Design Criteria (GDC) 2,17, 35, 36, and 37 in Tier2 Section 5.4.6.1. It is further stated that the Changes proposed in this LTR will have no effect on GE's evaluation of GDC compliance. However, in Standard Review Plan (SRP) and Final SE Section 5.4.6, the RCIC is evaluated for conformance with the GDC 4, 5, 29, 33, 34, and 54. Add the following applicable GDCs: GDC 4, 5, 29, 33, 34, and 54 in addition to the GDCs identified above.
3. Design Control Document (DCD) Tier 1, Page 2.4.4-2 (at the second paragraph) stated that the RCIC flow rate is achieved within 29 seconds of receipt of the system initial signal. This statement was not marked for the change in NEDE-33299. Confirm this statement is still applicable to the new design. If it is not applicable, the DCD Tier 1 needs to be modified. Provide the impact due to this difference on the safety analysis.
4. Are there any changes in the RCIC preoperational testing and initial startup test program? If there are testing changes, provide the detail.
5. Provide a flow pressure curve similar to the Tier 2 in figure 6.3-5 for the proposed design.

ENCLOSURE

