



GE Energy

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MFN 05-115

Project 717

October 24, 2005

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

**Subject: GE Response to Results of NRC Acceptance Review for ESBWR
Design Certification Application – Items 1 and 3 (TAC # MC8168)**

In the Reference 1 letter, the NRC indicated that additional information was required in certain areas of the ESBWR design certification application before the NRC could begin its review in those areas. Enclosures 1 and 2 contain additional information in the areas of fuel and control rod design and fuel correlation (items 1 and 3 in the Reference 1 letter). The following information is included:

- Enclosure 1 contains a description and schedule of the reports that will be prepared to provide the reference information to support review of DCD sections 4.2, 4.3, and 4.4.
- Enclosure 2 contains revised DCD sections 4.2, 4.3, and 4.4. These sections will be incorporated into DCD Revision 1.

The basic structure of DCD sections 4.2, 4.3, and 4.4 has been revised. The new structure provides:

- Licensing basis for each design criteria
- Methods of evaluating the criteria
- Description of the item being evaluated (if appropriate)
- Evaluation of the criteria

Each criterion is sub-divided in more detail. Details are provided for the evaluation of the criteria. A reference to the existing GE14 design is provided where appropriate. A reference to a report with GE14 information is provided where appropriate because

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GE14 information is not otherwise available without reference to GE internal Design Record Files. Where the evaluation requires application of proprietary information, a reference to a separate report specific to ESBWR is provided.

Enclosure 2 is provided in full compliance with GE's Quality Assurance (QA) Program (NEDO-11209-04A, *GE Nuclear Energy Quality Assurance Program Description*, March 31, 1989), which is NRC approved.

Consistent with this QA program, Enclosure 2 is identified as "Conditional Release – pending closure of design verifications." While GE has completed review of the technical accuracy and completeness of all the enclosure's content, and believes that the document is accurate, complete and ready for NRC review, some internal GE documentation remains to be closed. Accordingly, the conditional release status is identified on the document until closure of the internal documentation, which is scheduled for the fourth quarter of 2005.

If you have any questions about the information provided here, please let me know.

Sincerely,



David H. Hinds
Manager, ESBWR

Reference:

1. MFN 05-103, Letter from U. S. Nuclear Regulatory Commission, to Steven A. Hucik, *Results of Acceptance Review for ESBWR Design Certification Application (TAC NO. MC8168)*, September 23, 2005

Enclosures:

1. MFN 05-115 – Description and Schedule of Reports to Support Review of DCD Sections 4.2, 4.3, and 4.4
2. MFN 05-115 – Revised DCD Sections 4.2, 4.3, and 4.4

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cc: WD Beckner USNRC (w/o enclosures)
AE Cabbage USNRC (with enclosures)
LA Dudes USNRC (w/o enclosures)
GB StrambackGE/San Jose (with enclosures)
eDRF 0000-0040-6074

MFN 05-115
Enclosure 1

ENCLOSURE 1

MFN 05-115

**Description and Schedule of Reports to Support Review of
DCD Sections 4.2, 4.3, and 4.4**

MFN 05-115
Enclosure 2

ENCLOSURE 2

MFN 05-115

Revised DCD Sections:

4.2, “Fuel System Design”

4.3, “Nuclear Design”

4.4, “Thermal and Hydraulic Design”

(Conditional Release – pending closure of design verifications)