



GE Energy

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MFN 06-308  
Supplement 4

Docket No. 52-010

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U.S. Nuclear Regulatory Commission  
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Subject: **Response to Portion of NRC Request for Additional Information  
Letter No. 51 Related to ESBWR Design Certification Application –  
Turbine Main Steam System – RAI Number 3.2-1 S01**

Enclosure 1 contains a supplemental response to the subject RAI resulting from a November 20, 2006 e-mail request from the NRC. GE's original response was transmitted via the Reference 1 letter.

If you have any questions or require additional information regarding the information provided here, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Kathy Sedney for".

James C. Kinsey  
Project Manager, ESBWR Licensing

References:

1. MFN 06-308, Letter from David Hinds to U.S. Nuclear Regulatory Commission, *Response to NRC Request for Additional Information Letter No. 51 Related to ESBWR Design Certification Application – Classification of Structures, Systems and Components – RAI Numbers 3.2-1 through 3.2-62*, September 8, 2006
2. MFN 06-308, Supplement 1, Letter from James C. Kinsey to U.S. Nuclear Regulatory Commission, *Response to Portion of NRC Request for Additional Information Letter No. 51 Related to ESBWR Design Certification Application – Classification of Structures, Systems and Components – RAI Number 3.2-19 S01*, March 22, 2007
3. MFN 06-308, Supplement 2, Letter from James C. Kinsey to U.S. Nuclear Regulatory Commission, *Response to Portion of NRC Request for Additional Information Letter No. 51 Related to ESBWR Design Certification Application – RWCU System – RAI Number 3.2-34 S01*, March 26, 2007
4. MFN 06-308, Supplement 3, Letter from James C. Kinsey to U.S. Nuclear Regulatory Commission, *Response to Portion of NRC Request for Additional Information Letter No. 51 Related to ESBWR Design Certification Application – Classification of Structures, Systems and Components – RAI Numbers 3.2-3 S01 and 3.2-7 S01*, March 26, 2007

Enclosure:

1. MFN 06-308, Supplement 4 – Response to Portion of NRC Request for Additional Information Letter No. 51 Related to ESBWR Design Certification Application – Turbine Main Steam System – RAI Number 3.2-1 S01

cc: AE Cabbage USNRC (with enclosures)  
DH Hinds GE (with enclosures)  
RE Brown GE (w/o enclosures)  
eDRF 0000-0063-4118

**Enclosure 1**

**MFN 06-308, Supplement 4**

**Response to Portion of NRC Request for**

**Additional Information Letter No. 51**

**Related to ESBWR Design Certification Application**

**Turbine Main Steam System – RAI Number 3.2-1 S01**

**For clarity, RAI 3.2-1 and the GE response is included.**

**NRC RAI 3.2-1**

*It should be noted that the current 10 CFR 50.55a rule requires that an ASME Code N-symbol stamp be applied to all ASME Code Class 1, 2, and 3 pressure boundary components. This is contrary to a footnote b to Table 1 included in the currently issued Revision 3 of RG 1.26, which states that such a stamp need not be applied. The staff is currently in the process of revising RG 1.26 to conform to the requirements of 10 CFR 50.55a. Please confirm that all pressure retaining components designed to meet ASME Code requirements for Code Class 1, 2, and 3 components will have the Code N-symbol stamp applied, in accordance with 10 CFR 50.55a.*

**GE Response**

GE confirms that all pressure retaining components designed to meet ASME Code requirements for Code Class 1, 2 and 3 components will meet the requirements of 10 CFR 50.55a and will therefore have the Code N-symbol stamp applied per Table NCA-8100-1 of the ASME Code, Section III, Subsection NCA.

No DCD change will be made in response to this RAI.

### **NRC RAI 3.2-1 Supplement 1**

#### *Question Summary:*

*Table 3.2-1 for the N11 system shows that TMSS piping designed to ASME Section III Code Class 2 is not code stamped and does not require ASME inspections. Please correct or clarify the basis for this apparent discrepancy.*

#### *Full Text:*

##### *Item 3.2-1 a*

*The response to RAI 3.2-1 clarified that ASME Section III Code Class 1,2, and 3 components will have the Code N-Symbol stamp applied. However, resubmitted Table 3.2-1 for the N11 system shows that TMSS piping designed to ASME Section III Code Class 2 is not code stamped and does not require ASME inspections. Please correct or clarify the basis for this apparent discrepancy.*

##### *Item 3.2-1b*

*Regulatory Guide 1.26 Position C.1.c identifies that those portions of the steam systems of boiling water reactors extending from the outermost containment isolation valve up to but not including the turbine stop and bypass valves or shutoff valves and connected piping be classified as Quality Group B. Although Table 3.2-1 correctly classifies this piping as Quality Group B, the classification criteria is not included in Section 3.2.2.2. The applicant is requested to add the classification criteria as a basis used to identify the quality group for the N11 system piping including connected piping.*

### **GE Response**

#### **Item 3.2-1a Response**

GE confirms that pressure retaining components designed to meet ASME Code requirements for Code Class 1, 2 and 3 components will meet the requirements of 10 CFR 50.55a and will therefore have the Code N-symbol stamp applied per Table NCA--8100--1 of the ASME Code, Section III, Subsection NCA with the exceptions allowed in Regulatory Guide 1.26, revision 3, for nonsafety-related Main Steam piping and components. In accordance with Regulatory Guide 1.26, revision 3, the Quality Group B Main steam piping downstream of the seismic interface restraint is not required to be code stamped.

#### **Item 3.2-1b Response**

The Turbine Main Steam System (TMSS) piping downstream of the seismic interface restraint is nonsafety-related piping. The piping from the outboard MSIVs to the seismic interface restraint is B21 piping that is Quality Group B, seismic category I as shown on Figure 3.2-1 in the DCD. The TMSS piping from the seismic interface restraint up to, but not including the Stop Valves

and the Turbine Bypass Valves and including the first valve that is normally closed or capable of automatic closure, are Quality Group B, Seismic Category II. This is as Figure 3.2-1 indicates. This Nonsafety-Related TMSS Quality Group B piping downstream of the seismic interface restraint will not be code stamped.

**DCD Impact**

No DCD changes will be made in response to this RAI. All of the DCD Tier 2, Section 3.2 changes required as a result of this RAI response were incorporated in Revision 3 of the DCD submittal.