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MFN 07-174
Supplement 3

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. 75 Related to ESBWR Design
Certification Application – Environmental Qualification of
Safety-Related Mechanical and Electrical Equipment - RAI
Number 3.11-4 S01**

Enclosure 1 contains GEH's response to the subject NRC RAI discussed in a telecon on September 20, 2007. GE's original response was provided in the Reference 1 letter.

If you have any questions or require additional information, please contact me.

Sincerely,

James C. Kinsey
Vice President, ESBWR Licensing

DOUG
NRD

Reference:

1. MFN 07-174, Letter from James C. Kinsey to U.S. Nuclear Regulatory Commission, *Response to Portion of NRC Request for Additional Information Letter No. 75 Related to ESBWR Design Certification Application - Environmental Qualification of Safety-Related Mechanical and Electrical Equipment - RAI Numbers 3.11-1 through 3.11-5*, dated March 28, 2007

Enclosure:

1. MFN 07-174, Supplement 3 - Response to Portion of NRC Request for Additional Information Letter No. 75 Related to ESBWR Design Certification Application – Environmental Qualification of Safety-Related Mechanical and Electrical Equipment - RAI Number 3.11-4 S01

cc: AE Cubbage USNRC (with enclosure)
GB Stramback GEH/San Jose (with enclosure)
RE Brown GEH/Wilmington (with enclosure)
DH Hinds GEH/Wilmington (with enclosure)
eDRF 0000-0063-7989/4

Enclosure 1

MFN 07-174, Supplement 3

Response to Portion of NRC Request for

Additional Information Letter No. 75

Related to ESBWR Design Certification Application

Environmental Qualification of

Safety-Related Mechanical and Electrical Equipment

RAI Number 3.11-4 S01

NRC RAI 3.11-4

DCD, Tier 2, Revision 1, Section 3.11.5 states that the COL holders shall record and maintain the results of the qualification tests in an auditable file in accordance with the requirements of 10 CFR 50.49(j). In that 10 CFR 50.49(j) applies to electrical equipment, discuss the provisions for recording and maintaining the results of environmental qualification of safety-related mechanical equipment.

GE Response

Recording and maintaining the results of the environmental qualification of the safety related mechanical equipments follows 10 CFR 50.49(j), Reg Guide 1.89 and IEEE Std 323. Despite being originally generated to address EQ for safety related electrical components/parts, they are also applicable to safety related mechanical equipments as well. The COL holders will have complete and auditable records available which describe the environmental qualification method used for all mechanical and electrical equipment in sufficient detail to document the degree of compliance with NUREG-0800, thereafter such records will be updated and maintained current as equipment is replaced, tested or otherwise qualified.

DCD Impact

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

NRC RAI 3.11-4 S01

RAI 3.11-4 S01 Comment on response to RAI 3.11-4 from MFN 07-174: GE has stated that records for mechanical equipment qualification will follow 10 CFR 50.49(j), Regulatory Guide (RG) 1.89, and IEEE-323. Please revise the DCD to ensure implementation of this statement. Also, GE should specify that the COL applicant will need to fully describe equipment qualification program per SECY-05-197 and RG 1.206.

GEH Response

DCD Tier 2, Section 3.11.2.2, Revision 4, includes the requirement for EQ of mechanical equipment to meet 10 CFR 50.49(j), and IEEE-323. Regulatory Guide 1.89 provides implementation of IEEE-323 and Regulatory Guide 1.89 is provided as an applicable document in Section 3.11 (4).

DCD Tier 2, Section 13.4, Revision 4 identifies the requirement to fully describe operational programs, which includes EQ, per SECY 05-0197 and RG 1.206.

DCD Impact

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