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MFN 06-313 Supplement 4

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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. 40 Related to ESBWR Design Certification Application ESBWR Probabilistic Risk Assessment RAI Number 19.1-10S01.

Enclosure 1 contains GE's response to the subject NRC RAIs transmitted via the Reference 1 letter.

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

Sincerely,

Kathy Sedney for

James C. Kinsey
Project Manager, ESBWR Licensing

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NRO

Reference:

1. MFN 06-222, Letter from U.S. Nuclear Regulatory Commission to David Hinds, *Request for Additional Information Letter No. 40 Related to ESBWR Design Certification Application, July 5, 2006.*

Enclosures:

1. Response to Portion of NRC Request for Additional Information Letter No. 40 Related to ESBWR Design Certification Application ESBWR Probabilistic Risk Assessment RAI Number 19.1-10S01

cc:	AE Cubbage	USNRC (with enclosures)
	George Stramback	GE/San Jose (with enclosures)
	RE Brown	GE/Wilmington (with enclosures)

EDRF Section 0067-9823

Enclosure 1

MFN 06-313 Supplement 4

Response to Portion of NRC Request for

Additional Information Letter No. 40

Related to ESBWR Design Certification Application

ESBWR Probabilistic Risk Assessment

RAI Number 19.1-10S01

NRC RAI 19.1-10

Provide an assessment of the risk (frequency and consequences) associated with a rupture of the pipe carrying non-condensible gases from the PCCS to the suppression pool. (It would appear that this would not only disable the operation of the PCCS, by eliminating the pressure differential, but would also cause the suppression pool to be bypassed and the containment pressure to increase in an unabated manner.) Based on this assessment, either address this failure in the Containment System Event Tree (CSET) or justify its omission.

GE Response

These pipes are not subject to any significant loading at any time during such accidents, so their failure is physically unreasonable, and as a consequence such events need not be part of explicit consideration in the PRA.

NRC RAI 19.1-10 S01

Received by e-mail from Tom Kevern.

The response to RAI 19.1-10 asserts that, during an accident, pipes carrying noncondensable gases would not be subjected to significant loads, so that such events need not be considered in the PRA. The response does not address potential failure due to hydrodynamic or seismic loads. Without seeing a supporting analysis it is difficult to accept this conclusion. Please provide such an analysis.

GE Response

The PCCS piping system is safety related piping and is not a high-energy system. As such, the PCCS piping system will be designed to meet ASME Code Class and Seismic Category I requirements and qualified to seismic and other applicable loads as committed for safety-related piping design in Subsection 3.1 and Table 3.1-1 of the DCD Tier 1.

DCD Impact

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