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MFN 06-071
Supplement 1

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U.S. Nuclear Regulatory Commission
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Subject: **Response to NRC Request for Additional Information Letter No. 9
Related to ESBWR Design Certification Application – Containment
Systems – RAI Number 14.2-2 S01, Supplement 1**

Enclosure 1 contains GE's response to the subject NRC RAI resulting from an October 30, 2006 e-mail 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,

James C. Kinsey
Project Manager, ESBWR Licensing

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Reference:

1. MFN 06-071, Letter from David Hinds to U.S. Nuclear Regulatory Commission, *Response to NRC Request for Additional Information Letter No. 9 Related to ESBWR Design Certification Application – Containment Systems and Initial Test Program – RAI Numbers 6.2-1 through 6.2-3, 14.2-1, and 14.2-2*, March 13, 2006

Enclosure:

1. MFN 06-071, Supplement 1 – Response to NRC Request for Additional Information Letter No. 9 Related to ESBWR Design Certification Application – Containment Systems – RAI Number 14.2-2 S01

cc: AE Cabbage USNRC (with enclosures)
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eDRF 0000-0061-7037

Enclosure 1

MFN 06-071

Supplement 1

**Response to NRC Request for
Additional Information Letter No. 9
Related to ESBWR Design Certification Application
Containment Systems
RAI Number 14.2-2 S01**

NRC RAI 14.2-2 Supplement

Original RAI:

In section 14.2.8.1.33, "Containment Isolation Valve Functional and Closure Timing Tests", there is a reference to Table 6.2-50, but no such table exists in the DCD. Clarify this discrepancy.

Original GE Response:

The correct reference is "Tables 6.2-16 to 6.2-42" instead of "Tables 6.2-50". Section 14.2.8.1.33 has been modified by making this correction in Revision 01 of the DCD.

Supplement Response:

The change made in Revision 01 of the DCD failed to correct both references to Table 6.2-50, which does not exist. The correction of replacing the remaining reference to "Table 6.2-50" with "Tables 6.2-16 through 6.2-42" will be made in the next revision of the DCD as noted in the attached markup. No other references to Table 6.2-50 exist in Chapter 14 of the DCD.

- To obtain the baseline data for use during subsequent leak rate tests.

Prerequisites

After attaining test pressure, the Suppression pool gas space pressure is stabilized for one hour prior to collecting data. Suppression pool gas space closures are in place and the containment ventilation system is operable to support this test. Pressurizing and test equipment is checked out and ready for the test. The wetwell is filled with water to normal operating level.

General Test Methods and Acceptance Criteria

The suppression pool bypass leakage test will be performed at both high and low test pressure conditions to detect potential leakage in the drywell to the suppression pool gas space as described in the following:

With the drywell being pressurized at the specified test pressures, adjust the suppression pool gas space pressure to establish the prescribed test differential pressure. Allow pressure to stabilize for one hour prior to collecting data used to determine the leak rate. Verify that the measured drywell to suppression pool gas space bypass leakage rate is within design limit as specified in Section 6.2.

14.2.8.1.33 Containment Isolation Valve Functional and Closure Timing Tests***Purpose***

To verify proper function of the containment isolation valves, including the required closure timing are met.

Prerequisites

Permanently installed equipment and instrumentation shall have been functionally tested and calibrated.

General Test Methods and Acceptance Criteria

The Containment Isolation System is discussed in Section 6.2 with characteristics of and requirements for individual valves listed in Tables 6.2-16 through 6.2-42. Preoperational functional and closure timing tests of valves performing containment isolation functions will be done as part of the testing of the systems to which such valves belong (see Tables 6.2-16 through 6.2-42 for system affiliation of individual valves). Overall containment isolation initiation logic is a function of the leak detection and isolation system testing that is described in Subsection 14.2.8.1.

14.2.8.1.34 Wetwell-to-Drywell Vacuum Breaker System Preoperational Test***Purpose***

This test is to verify proper functioning of the wetwell-to-drywell vacuum breakers. The leakage rate test of the vacuum breakers are performed in conjunction with suppression pool bypass described in Subsection 14.2.8.1.

Prerequisites

The visual inspections of the mechanical components on the vacuum breakers have been completed and the SCG has reviewed the test procedure and approved the initiation of testing.