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Your ref: Docket No. 52-006
Our ref: DCP/NRC2381

February 19, 2009

Subject: AP1000 Response to Request for Additional Information (SRP 5)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 5. This RAI response is submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in the response is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification and the AP1000 Design Certification Amendment Application.

Enclosure 1 provides the response for the following RAI:

RAI-SRP5.4.7-SRSB-02

Questions or requests for additional information related to the content and preparation of this response should be directed to Westinghouse. Please send copies of such questions or requests to the prospective applicants for combined licenses referencing the AP1000 Design Certification. A representative for each applicant is included on the cc: list of this letter.

Very truly yours,

A handwritten signature in black ink, appearing to read "Robert Sisk".

Robert Sisk, Manager
Licensing and Customer Interface
Regulatory Affairs and Standardization

/Enclosure

1. Response to Request for Additional Information on SRP Section 5

cc: D. Jaffe - U.S. NRC 1E
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ENCLOSURE 1

Response to Request for Additional Information on SRP Section 5

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP5.4.7-SRSB-02
Revision: 0

Question:

One of the safety-related functions provided by the AP1000 normal residual heat removal system includes a flow path for long term post-accident makeup to the containment inventory. In the AP1000 DCD Revision 17, the long-term post-accident containment makeup flow path was modified to improve and simplify the method by eliminating the air diaphragm operated valve RNS-PL-V006A in the reconfigured valve setup. The new realigned makeup flow path requires revision to the Tier 1 Table 2.3.6-1 which included deletion of valves RNS-PL-V046A and RNS-PL-V046B and the addition of the manual containment isolation test connection valve RNS-PL-V012. Eliminating V006, V046A and V046B in the reconfigured flow path results in the reduction of the testing and qualification requirements for these valves.

Provide an explanation on the process used to determine which RNS valves are included in Tier 1 Table 2.3.6-1.

Westinghouse Response:

DCD Tier 2, Section 14.3 describes the selection criteria and methodology used to develop the AP1000 Certified Design Material and to determine which structures, systems, and components are included in the Tier 1 ITAAC tables. This DCD section provides the design bases and characteristics that are certified by the 10 CFR Part 52 rulemaking process and included in the design certification rule.

In determining structures, systems, or components for which certified design descriptions and ITAAC must be prepared, the following questions are considered for each structure, system, or component:

- Are any features or functions classified as Class A, B or C?
- Are any defense-in-depth features or functions provided?
- For nonsafety-related systems, are any features or functions credited for mitigation of design basis events?
- For nonsafety-related systems, are any features or functions that have been identified in Section 16.3 as candidates for additional regulatory oversight?

If the answer to the first question is YES, then a certified design description and ITAAC are prepared using the safety function stated in the Tier 2 Material and parameters from the safety analysis.

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

If the answer to either of the next two questions is YES, then a certified design description and ITAAC are prepared using the functions stated in the Tier 2 Material and parameters from the system design calculations.

If the answer to the last question is yes and the feature or function is not a programmatic requirement related to operations, maintenance or other programs, then a certified design description and ITAAC are prepared using the functions stated in the Tier 2 Material and the parameters from system design calculations.

GW-GLX-030 documents the AP1000 Tier 1 Design Description and ITAAC Screening. The RNS components identified for ITAAC's are identified as those components classified as Class A, B, or C which support any of the following functions:

1. Containment isolation valves and penetrations are Class B.
2. Reactor coolant system pressure boundary valves are Class A.
3. Long Term makeup is not credited in the safety analysis, however it is a Defense in Depth function.
4. Low Temperature over-pressure protection of the RCS during shutdown is a Defense in Depth function.

References:

GW-GLX-030, Rev. 0, ITAAC Screening Checklist
DCD Tier 2, Section 14.3, Certified Design Material

Design Control Document (DCD) Revision:

None

PRA Revision:

None

Technical Report (TR) Revision:

None