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Your ref: Docket No. 52-006
Our ref: DCP_NRC_002741

January 15, 2010

Subject: AP1000 Response to Request for Additional Information (SRP 7)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 7. This RAI response is submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in this 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(s):

RAI-SRP7.1-ICE-12 R1

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 7

cc: D. Jaffe - U.S. NRC 1E
E. McKenna - U.S. NRC 1E
P. Kallan - U.S. NRC 1E
S. K. Mitra - U.S. NRC 1E
T. Spink - TVA 1E
P. Hastings - Duke Power 1E
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A. Monroe - SCANA 1E
P. Jacobs - Florida Power & Light 1E
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ENCLOSURE 1

Response to Request for Additional Information on SRP Section 7

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-12
Revision: 1

Question:

For material associated with the AP1000 Design Certification Amendment, provide a consistent reference of standards and other guidance throughout all docketed and referenced technical documents.

Upon review of various technical reports, several references cited were from different revisions of the same accepted industry standard. For example Technical Report 89 (WCAP 16675-P) references IEEE 7-4.3.2-2003 while Technical Report 42 (APP-GW-GLR-017) references the 1993 version of the standard

Westinghouse Response:

DCD Rev 17, Tier 2, Table 19.59-18 (Sheet 7 of 25), states that the PMS software is designed, tested, and maintained to be reliable under a controlled verification and validation program written in accordance with IEEE 7-4.3.2 (1993) that has been endorsed by Regulatory Guide 1.152, Rev. 1.

In addition, Tier 2, Appendix 1A under Reg. Guide 1.152, Rev.1 – Criteria for Programmable Digital Computer System Software in Safety-Related Systems of Nuclear Power Plans, states that the AP1000 conforms to ANSI/IEEE-ANS-7-4.3.2-1993.

Westinghouse standard practices allow for use of later versions of standards as long as they "envelope" the standard called out in the DCD. In this case, the standard called out in the DCD is IEEE 7-4.3.2 (1993). As stated in the above question, Technical Report 89 (WCAP 16675-P) references IEEE 7-4.3.2-2003, which envelopes 1993. The enveloping of the 1993 version of the standard does not modify the DCD Revision 17 commitment.

As a supplement to the above Westinghouse response, this subject was discussed during the October 15th and 16th 2008 I&C Technical Review Meetings between Westinghouse and the NRC. The following actions related to this RAI resulted from that meeting:

1. The NRC will communicate guidance for license basis consistency and advise WEC.
2. By 11/15/2008, WEC will review all Chapter 7 PMS related docketed documents for consistency with the DCD regulatory basis.

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

Question OI-SRP-7.1-01:

7.1.3.2 Compliance with Industry Standards

WEC submitted a number of technical reports (TRs) associated with I&C systems that it incorporated by reference into the AP1000 DCD. In several cases, WEC referenced industry standards and other regulations to different revisions of the same document. For example, TR WCAP 16675-P (APP-GW-GLR-071), "AP1000 Protection and Safety Monitoring System Architecture Report," Revision 2, references the Institute of Electrical and Electronics Engineers (IEEE) Standard (Std.) 7-4.3.2-2003, while TR APP-GW-GLR-017, "Resolution of Common Q NRC Items for AP1000," Revision 0, references the 1993 version of the IEEE standard. The NRC originally addressed this issue under RAI-SRP-7.1-ICE-12. Although WEC committed to reference all newly created or revised technical documents to current guidance or industry standards, the NRC discovered different versions of a given standard in several newly submitted reports. **The NRC staff identified this as OI-7.1-01.**

Westinghouse Response:

The industry standards referenced in Westinghouse documents, including the Chapter 7 docketed documents, support the AP1000 certified design and are consistent with the DCD regulatory basis. Westinghouse standard practices, including newly created or revised technical documents, allow for use of later versions of industry standards as long as they "envelope" the standard called out in the DCD. In cases where the design has changed, WEC will work with the Staff, on a case by case basis, to address questions on versions of reference documents.

Design Control Document (DCD) Revision: None

PRA Revision: None

Technical Report (TR) Revision: None