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Your ref: Docket No. 52-006
Our ref: DCP/NRC2270

October 1, 2008

Subject: AP1000 Response to Request for Additional Information (SRP15)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 15. 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.

A response is provided for RAI-SRP15.4.3-SRSB-01 as sent in an email from Phyllis Clark to Sam Adams dated May 8, 2008. This response completes all requests received to date for SRP Section 15. A response for RAI-SRP15.0-SRSB-01, RAI-SRP15.1.4-SRSB-01, RAI-SRP15.3.1-SRSB-01, RAI-SRP15.4.6-SRSB-01, and RAI-SRP15.5.1-SRSB-01 was submitted under letter DCP/NRC2216 dated July 29, 2008. A response for RAI-SRP15.3-RSAC-01 through -17 was submitted under letter DCP/NRC2187 dated June 30, 2008.

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 15

cc: D. Jaffe - U.S. NRC 1E
E. McKenna - U.S. NRC 1E
P. Clark - U.S. NRC 1E
P. Ray - TVA 1E
P. Hastings - Duke Power 1E
R. Kitchen - Progress Energy 1E
A. Monroe - SCANA 1E
J. Wilkinson - Florida Power & Light 1E
C. Pierce - Southern Company 1E
E. Schmiech - Westinghouse 1E
G. Zinke - NuStart/Entergy 1E
R. Grumbir - NuStart 1E
D. Behnke - Westinghouse 1E

ENCLOSURE 1

Response to Request for Additional Information on SRP Section 15

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RAI Response Number: RAI-SRP15.4.3-SRSB-01
Revision: 0

Question:

For DCD revision 16, a change is made to subsection 15.4.3.1 by deleting the statement that if the rod deviation alarm is not operable, the operator takes action as required by the Technical Specifications.

If operator action is required by TS in the event that one or more of the rod position indicator channels is out of service, what is the basis for deleting the operator action in the sentence in DCD subsection 15.4.3.1? What ensures that the rod deviation alarm remains operable at all times so that operator action should no longer be required by TS?

Westinghouse Response:

The sentence "If the rod deviation alarm is not operable, the operator takes action as required by the Technical Specifications" was revised in DCD Rev 16 subsection 15.4.3.1 to be consistent with Technical Specifications 3.1.4 and 3.1.7. Neither of these Technical Specifications or any other Technical Specifications require the rod deviation alarm to be operable. Technical Specifications 3.1.4 and 3.1.7 were revised in DCD Revision 3 to be consistent with NUREG-1431 Revision 2. NUREG-1431 was revised to remove the rod deviation alarm since it serves as indication only and does not directly relate to the Limiting Conditions for Operation. This is documented in TSTF-110, R.2, "Delete SR frequencies based on inoperable alarms," Accession Number ML040490071.

AP1000 Technical Specification 3.1.4 requires all shutdown and control rods shall be OPERABLE. Individual indicated rod positions shall be within 12 steps of their group step counter demand position. Surveillance Requirement 3.1.4.1 requires that individual rod positions are verified within alignment limit every 12 hours. Verification that individual rod positions are within alignment limits at a Frequency of 12 hours provides a history that allows the operator to detect that a rod is beginning to deviate from its expected position. The specified Frequency takes into account other rod position information that is continuously available to the operator in the main control room so that during actual rod motion, deviations can immediately be detected.

Rod position information is continuously available to the operator in the main control room by the Digital Rod Position Indication (DRPI) System and the Bank Demand Position Indication System. Technical Specification 3.1.7 requires The Digital Rod Position Indication (DRPI) System and the Bank Demand Position Indication System shall be OPERABLE.

The digital rod control system maintains a count of steps taken by each rod group. Based on this information, a digital readout of the demanded bank position is provided. The demanded and measured rod position signals are displayed in the main control room. An alarm is

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generated whenever an individual rod position signal deviates from the other rods in the bank by a preset limit. The alarm is set with appropriate allowance for instrument error and within sufficiently narrow limits to prevent exceeding core design hot channel factors.

Design Control Document (DCD) Revision:

None

PRA Revision:

None

Technical Report (TR) Revision:

None