Westinghouse Electric Company
Nuclear Power Plants
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, D.C. 20555

Direct tel: 412-374-6206
Direct fax: 412-374-5005
e-mail: sisk1rb@westinghouse.com

Your ref: Docket No. 52-006
Our ref: DCP/NRC2379

February 9, 2009

Subject: AP1000 Responses to Requests for Additional Information (SRP 9)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 9. 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:

RAI-SRP9.3.6-SRSB-01

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,

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

/Enclosure

1. Response to Request for Additional Information on SRP Section 9

D063
NRO

cc:	D. Jaffe	-	U.S. NRC	1E
	E. McKenna	-	U.S. NRC	1E
	P. Buckberg	-	U.S. NRC	1E
	C. Proctor	-	U.S. NRC	1E
	T. Spink	-	TVA	1E
	P. Hastings	-	Duke Power	1E
	R. Kitchen	-	Progress Energy	1E
	A. Monroe	-	SCANA	1E
	P. Jacobs	-	Florida Power & Light	1E
	C. Pierce	-	Southern Company	1E
	E. Schmiech	-	Westinghouse	1E
	G. Zinke	-	NuStart/Entergy	1E
	R. Grumbir	-	NuStart	1E
	P. Loza	-	Westinghouse	1E

ENCLOSURE 1

Response to Request for Additional Information on SRP Section 9

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP9.3.6-SRSB-01
Revision: 0

Question:

In Revision 17 to DCD, Tier 1 Table 2.3.2-4, ITAAC, item 10.b, the acceptance criteria for the closing times of the Chemical and Volume Control System (CVS) makeup pump discharge containment isolation valves (CIV) CVS-PL-V090 and CVS-PL-V091 (after receipt of an actuation signal) have been changed from 10 to 30 seconds.

Explain whether the change in the acceptance criteria of these makeup pump discharge isolation valves is consistent with the assumption of the corresponding time delay assumed in the safety analysis of boron dilution events, and discuss the effects on the safety analysis results of these events.

Westinghouse Response:

The change in closure time for the CVS makeup pump discharge isolation valves from 10 to 30 seconds will have no impact on the boron dilution events occurring during startup (Mode 2) or during full power operation (Mode 1). As discussed in the DCD, the calculations for these modes of operation show that the purge volume of the chemical and volume control system is not sufficient to return the reactor to criticality. The additional 20 seconds for the valve closure time does not change this conclusion.

With respect to a boron dilution occurring during either cold shutdown (Mode 5), safe shutdown (Mode 4), or hot standby (Mode 3) the DCD analyses assumed a CVS makeup isolation value closure time of 28 seconds (with an overall 30-secondary delay modeled which considers a 2-second microprocessor delay). Based on a review of the DCD analysis, it is concluded that there is more than enough margin to accommodate an additional 2-second delay in the valve closure time.

Therefore, the results and conclusions of the DCD for the Boron Dilution events remain valid.

Design Control Document (DCD) Revision:

None.

PRA Revision:

None

Technical Report (TR) Revision:

None