



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: 724-940-8505
e-mail: sisk1rb@westinghouse.com

Your ref: Docket No. 52-006
Our ref: DCP_NRC_002626

September 18, 2009

Subject: AP1000 Response to Request 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(s):

RAI-SRP9.1.3-SBPA-09

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 9

DOG3
NRO

cc:	D. Jaffe	-	U.S. NRC	1E
	E. McKenna	-	U.S. NRC	1E
	P. Buckberg	-	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-SRP9.1.3-SBPA-09

Revision: 0

Question:

In describing spent fuel transfer operation, AP1000 DCD, Revision 16, states that waterways are of sufficient depth to maintain "a minimum of 9.5 feet of shielding above the active fuel height." AP1000 DCD, Revision 17, is changed to state that waterways are of sufficient depth to maintain "a minimum of 8.75 feet of shielding above the active fuel height." This corresponds to a decrease in minimum shielding of 9 inches.

AP1000 DCD, Revision 17, Tier 1 Table 2.1.1-1, line 5, indicates that the maximum elevation to which the bottom of a fuel bundle can be lifted has changed from 25 feet 3 inches below the operating deck to 24 feet 6 inches below the operating deck. This corresponds to an additional lift of 9 inches.

AP1000 DCD, Revision 17, Table 9.1-2, has changed the SFP normal water level from 12 inches below the operating deck to 15 inches below the operating deck. This corresponds to a decrease in normal water level of 3 inches.

Based on an increased fuel bundle lift of 9 inches and a decreased normal water level of 3 inches, the staff believes that the change in minimum shielding should be a decrease of 12 inches, not a decrease of 9 inches.

The staff requests that the applicant clarify in the DCD the proposed changes described above so that the decrease in minimum shielding can be accurately determined.

Westinghouse Response:

DCD Revision 17, Tier 1, Table 2.1.1-1, Paragraph 5, limits the fuel assembly raise height to 24'-6" between the bottom nozzle and the operating floor, El 135'-3". This corresponds to 8.5 feet (102") of water shielding above the active portion of the fuel when the refueling cavity/spent fuel pool water level is at the 134'-0" elevation (minimum water elevation for fuel movement). This is a 12" reduction in shielding previously described in Revision 16 of the DCD. This limit is established as a mechanical hard stop limit for the refueling machine and the fuel handling machine, and follows the guidance provided in ANSI/ANS 57.1, Section 6.4.1.2.

DCD Revision 17, Tier 2, throughout Section 9.1 and Section 12 establishes the minimum water coverage as 8.75 feet (105") above the active portion of the fuel when the refueling cavity/spent fuel pool water level is at the 134'-0" elevation (minimum water elevation for fuel movement). This is a 9" reduction in shielding. The refueling machine and fuel handling machine will have controls to limit the hoist up travel to satisfy this requirement. These control limits are conservative and established to prevent equipment operation at hard mechanical limits.

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

No additional DCD changes are provided with this RAI response.

Design Control Document (DCD) Revision: None

PRA Revision: None

Technical Report (TR) Revision: None