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Your ref: Docket No. 52-006
Our ref: DCP/NRC2173

June 20, 2008

Subject: AP1000 Response to Requests for Additional Information (SRP3.12)

Westinghouse is submitting a response to the NRC requests for additional information (RAIs) on SRP Section 3.12. 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-SRP3.12-EMB-04 and -05, as sent in an email from Mike Miernicki to Sam Adams dated April 30, 2008. This response completes all requests received to date for SRP Section 3.12. A response to RAI-SRP3.12-EMB-01 through -03 was provided under letter DCP/NRC2153 dated June 6, 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 Requests for Additional Information on SRP Section 3.12

cc:	D. Jaffe	-	U.S. NRC	1E
	E. McKenna	-	U.S. NRC	1E
	M. Miernicki	-	U.S. NRC	1E
	P. Ray	-	TVA	1E
	P. Hastings	-	Duke Power	1E
	R. Kitchen	-	Progress Energy	1E
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	C. Pierce	-	Southern Company	1E
	E. Schmiech	-	Westinghouse	1E
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ENCLOSURE 1

Response to Requests for Additional Information on SRP Section 3.12

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP3.12-EMB-04
Revision: 0

Question:

In TR-134, revision 3, the applicant stated that "A COL holder referencing the AP1000 design will have available for NRC audit the design specifications and as-designed reports prepared for major ASME Section III components and ASME Code, Section III piping." The statement indicated that COL applicant may not complete the piping design prior to issuance of a COL.

On February 8, 2008, Westinghouse issued a letter related to schedule for piping design document review. In this letter, Westinghouse stated that "It is the intention of Westinghouse that design documents related to DAC and COL information item will be available for NRC review during the period scheduled for the NRC review of the design certification amendment. It is expected that information will be available for NRC review to permit the resolution, closure, or removal of the design acceptance criteria (DAC) and COL information item."

Is the AP1000 design certificate (DC) applicant going to complete the as-designed piping analyses and design reports by December 2008 as stated in the February 8, 2008, letter? If yes, AP 1000 DC applicant should revise DCD to reflect design completion. Otherwise applicant should provide justification for changing design specifications and reports from COL applicant to COL holder item and propose a method and schedule to resolve the piping DAC issue and update the DCD to reflect the proposed alternative.

Westinghouse Response:

It is the intention of Westinghouse to have the design documents for the risk-significant lines, identified by the NRC, available during the review of the design certification amendment. The DCD will be revised to reflect the expected completion of the piping design. It is expected that the NRC's review of these documents will permit the resolution, closure, or removal of the DAC and the COL information item.

Design Control Document (DCD) Revision:

None

PRA Revision:

None

Technical Report (TR) Revision:

None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP3.12-EMB-05
Revision: 0

Question:

Subsection 3.9.8.2 of DCD revision 16 proposed that following activities are to be completed by COL holder:

“Reconciliation of the as-built piping (verification of the thermal cycling and stratification loading considered in the stress analysis discussed in subsection 3.9.3.1.2) is completed by COL holder after the construction of the piping systems and prior to fuel load. “

How does the COL holder complete verification of the thermal cycling and stratification loading considered in the stress analysis as discussed in subsection 3.9.3.1.2 prior to fuel load? The staff is not aware of any specific monitor program for verification of thermal cycling and stratification loading condition of automatic depressurization stage 4 lines and passive residual heat removal line. These two lines are susceptible to thermal stratification as described in subsection 3.9.3.1.2 of DCD. If verification cannot be completed prior to fuel load, applicant should provide alternatives.

Westinghouse Response:

Subsection 3.9.8.2 deals with design specifications and design reports and the requirement to perform a reconciliation/analysis for the as-built piping. The intent of the phrase in parenthesis is to verify that “dimensional/layout/support differences” identified in an as-built walk-down are considered in both the thermal cycling/stratification as well as the standard portion of the piping analysis. The monitoring program identified in 3.9.8.5 is a one time requirement for the surge line and is not related or applicable to subsection 3.9.8.2. Thermal cycling and stratification loadings are evaluated by analysis and if the as-built dimensions, layout, or supports on the piping lines change as the result of construction, a reconciliation of the stratification analysis is performed.

Design Control Document (DCD) Revision:

None

PRA Revision:

None

Technical Report (TR) Revision:

None