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Your ref: Docket No. 52-006
Our ref: DCP_NRC_002913

June 8, 2010

Subject: AP1000 Response to Open Item (Chapter 18)


Westinghouse is submitting the following responses to the NRC open item (OI) on Chapter 18. These proposed open item responses are submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in these responses 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 proposed Open Item(s):

OI-SRP18-COLP-03A 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,


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

/Enclosure

1. Response to Proposed Open Item (Chapter 18)

DO63
N120

cc:	D. Jaffe	- U.S. NRC	1E
	E. McKenna	- U.S. NRC	1E
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	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
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ENCLOSURE 1

AP1000 Response to Proposed Open Item (Chapter 18)

AP1000 TECHNICAL REPORT REVIEW

Response to Open Item (OI)

RAI Response Number: OI-SRP18-COLP-03A
Revision: 1

Question:

18.11.8 Evaluation of Tier 1 Information—Design Commitment 4, ITAAC Table 3.2-1, Tier 1, Section 3.2 (DCD Revision 15), Part 3, Integrated System Validation

18.11.8.1 Summary of Technical Information

ITAAC Design Commitment 4 reads as follows:

Design Commitment: An HFE program verification and validation implementation plan is develop[ed] in accordance with the programmatic level description of the AP1000 human factors verification and validation plan. Inspection, Test, and Analysis: An inspection of the HFE verification and validation implementation plan will be performed. Acceptance criteria (part 3): A report exists and concludes that the HFE verification and validation implementation plan was developed in accordance with the programmatic level description of the AP1000 human factors verification and validation plan and includes the following activities:

- Integrated System Validation

In DCD Revision 17, the applicant deleted this ITAAC based on completion of the work it described.

18.11.8.2 Evaluation

The NRC staff received APP-OCS-GEH-320, “AP1000 Human Factors Engineering Integrated System Validation Plan,” Revision B in late June, and the plan is in the review process. **Open Item OI-SRP18-COLP-03A** tracks completion of this work.

18.11.8.3 Conclusion

ITAAC Design Commitment 4 tracks completion of the V&V implementation plans. ITAAC Design Commitment 4 remains open pending the receipt and satisfactory review of APP-OCS-GEH-320.

Westinghouse Response: (Revision 0)

At a meeting held on December 9th 2009 at the NRC Twinbrook Office, Westinghouse and the NRC discussed the technical issues related to the AP1000 Human Factors Engineering Integrated System Validation Plan. In regards to completing ITAAC Design Commitment 4, it was agreed that Westinghouse would:

- Incorporate HFE into Training and Procedures documents (APP-OCS-GER-041/031). Westinghouse completed this action with the submittal of the 031 and

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041 documents to the Westinghouse Twinbrook office for NRC review. This action was completed in January 2010.

- Submit document APP-OCS-GEH-321 (scenarios and observer guides) to the WEC Twinbrook for inspection by the end of January 2010 and then on the docket by 2/21/2010. The document was delivered to the Westinghouse Twinbrook Office on February 1st 2010.
- Submit document APP-OCS-GEH-320 main body of document and appendices that do not change) to the WEC Twinbrook office in February 2010 and on the docket by 3/15/10. The document was delivered to the Westinghouse Twinbrook Office on February 12th 2010.

Westinghouse Additional Response: (Revision 1)

The following documents were transmitted via DCP_NRC_002912-on 6/8/2010 for docketing:

- APP-OCS-GEH-320 Revision D, "Human Factors Engineering Integrated System Validation Plan" (Proprietary)
- APP-OCS-GEH-322 Revision D, "Human Factors Engineering Integrated System Validation Plan (Non-Proprietary)"
- APP-OCS-GEH-321 Revision B, "AP1000 Human Factors Engineering Integrated System Validation Scenario Information" (Proprietary)
- APP-OCS-GEH-323 Revision B, "AP1000™ Human Factors Engineering Integrated System Validation Scenario Information (Non-Proprietary)"

APP-OCS-GEH-320 provides a comprehensive human performance-based assessment of the final design of the AP1000™ Human-System Interface (HSI) resources, based on their realistic operation within a simulator-driven Main Control Room (MCR). APP-OCS-GEH-322 is the non-proprietary version of the proprietary document APP-OCS-GEH-320.

APP-OCS-GEH-321 is created to supplement APP-OCS-GEH-320 with detailed information, such as scenario descriptions, observer guides, scope of simulation, etc. This document is separate from -320 to enhance security for the detailed scenarios, and to facilitate the iterative refinement of the scenarios in response to further procedure development and simulator testing. Combined, documents -320 and -321 comprise the complete ISV plan. APP-OCS-GEH-323 is the non-proprietary version of the proprietary document APP-OCS-GEH-321.

References:

None

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Design Control Document (DCD) Revision:

None

PRA Revision:

None

Technical Report (TR) Revision:

None