



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/NRC2310

December 5, 2008

Subject: AP1000 Response to Request for Additional Information (SRP7)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 7. 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.

Enclosure 1 provides the response for the following RAI:

RAI-SRP7.1-ICE-16

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,

*John DeBlasio /for*

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

/Enclosure

1. Response to Request for Additional Information on SRP Section 7

cc:	D. Jaffe	- U.S. NRC	1E
	E. McKenna	- U.S. NRC	1E
	S. K. Mitra	- 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
	R. Seelman	- Westinghouse	1E

ENCLOSURE 1

Response to Request for Additional Information on SRP Section 7

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

---

RAI Response Number: RAI-SRP7.1-ICE-16  
Revision: 0

### **Question:**

Provide a set of detailed schematic drawings of the AP1000 Common Q Platform as it pertains to the Protective and Safety Monitoring System (PMS) clearly showing the system and any ancillary systems connected to the PMS (including any connection(s) to the Diverse Actuation System, if applicable) from sensor, or sensor output devices, through the final actuation devices.

These drawings will enable the NRC Staff to better determine how given components, within given divisions of the system are able to meet the single failure criterion of IEEE Standard 603-1991.

### **Westinghouse Response:**

The specifically requested drawings will be available during design finalization. They are not needed during this stage of the design of the AP1000 Common Q Platform.

Compliance with the single failure criterion of IEEE Standard 603-1991 is achieved as a system, not within a division. Westinghouse assigns sensors and loads to assure that no single failure of a division will prevent actuation. The designers assign each safety component (actuated devices and sensors) to a division so that the system meets the single failure criterion assuming the complete failure of one division. Westinghouse then performs a FMEA that determines that any single failure within the PMS does not cause failures in any other divisions.

There are no connections between the DAS and the PMS. The DAS has separate sensors and its actuations are routed to the actuation devices downstream of the PMS. For example, AOVs have a separate pilot solenoid for DAS actuations, squib valves have separate igniters, and MOVs have separate inputs to the motor control centers.

Reference(s):

**Design Control Document (DCD) Revision:**  
None

**PRA Revision:**  
None

**Technical Report (TR) Revision:**  
None



**Westinghouse**