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Your ref: Docket No. 52-006
Our ref: DCP/NRC2319

December 12, 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-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 7

cc:	D. Jaffe	- U.S. NRC	1E
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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-01
Revision: 0

Question:

Provide an exhaustive road map or table demonstrating what plant-specific action items, generic open items, as well as other open items are addressed via a specific Inspections, Tests, Analysis, and Acceptance Criteria (ITAAC). Identify those items that are not yet completed and at what stage of the software lifecycle these open items to be completed.

The safety evaluation report for the Common Q Platform identified several plant-specific action items and generic open items, of which some have been addressed in the AP1000 Design Control Document (DCD), Revision 16. An example is the following:

PSAI 6.6 is to be resolved via Item 10 in DCD Tier 1 – This can only be accomplished AFTER final selection of all devices from the sensors to the final actuation devices have been selected and the final setpoint methodology is applied via the final setpoint determination calculation. This activity is not expected to be completed until at least the System Integration phase of Westinghouse's software lifecycle.

Westinghouse Response:

TR42 (Resolution of Common Q NRC Items for AP1000) provides detail on the resolution of the Generic Open Items (GOI) and Plant Specific Action Items (PSAI). The resolution of GOI and PSAI resulting from the NRC review of the I&C platform is identified the AP1000 Design Control Document, Subsection 7.1.6.

Attached is a table that summarizes which items have been addressed and which haven't as well as which are closed and any ITAACs that exist, that will confirm the closure.

Reference:

APP-GW-GLR-017 (TR42)

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

None

Status of Common Q PSAs and GOIs				
Item	Topic	ITAAC	Completed / Closed	Completion Stage
GOI 7.1	A new Analog Input Module has been developed and qualified.	-	Closed	-
GOI 7.2	Finalization of the Common Q Power Supplies	-	Closed	-
GOI 7.3	Information on the Hardware Watchdog Timer	-	Closed	-
GOI 7.4	Arrange a Reseller Agreement on QSSL	-	Closed	-
GOI 7.5	Additional EMC Tests on the PM646	-	Closed	-
GOI 7.6	Seismic / Environmental Testing on the non-AC 160 hardware components	-	Closed	-
GOI 7.7	Adequacy of the scope of tests for validating a Software Module	-	Closed	-
GOI 7.8	Provide design information for Loop Controllers	-	Closed	-
GOI	Provide	-	Closed	-

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Status of Common Q PSAs and GOIs				
Item	Topic	ITAAC	Completed / Closed	Completion Stage
7.9	sufficient detail to permit an evaluation against independence requirements for Signal Separation			
GOI 7.10	Provide additional detail for the Multi-Channel Operator Station	-	Closed	-
PSAI 6.1	Assess the suitability of the S600 I/O Modules	-	Closed	-
PSAI 6.2	Review of the implementation of the Hardware User Interface	-	Closed Not Applicable to AP1000	-
PSAI 6.3	Use of the FPDS in plant specific FMEAs	-	Closed	-
PSAI 6.4	Plant Environmental Data enveloped by that of Common Q qualification testing	DCD 17, Tier 1, Table 2.5.2, Items 2,3,4	No	Hardware and Software Test Phase September 2012
PSAI 6.5	Staff review of the implementation of Lifecycle design outputs	DCD 17, Tier 1, Table 2.5.2 Item 11	No	Hardware and Software Test Phase September 2012

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Status of Common Q PSAIs and GOIs				
Item	Topic	ITAAC	Completed / Closed	Completion Stage
PSAI 6.6	Licensee to review timing analysis and validation testing	DCD 17, Table 2.5.2, Item 10	No	System Integration Completion Stage is Plant Specific
PSAI 6.7	Human factors considerations for applications of Common Q will be considered on a plant-specific basis	DCD 17, Tier 1, Table 3.2-1	No	Plant HFE/HSI Verification Completion Stage is Plant Specific
PSAI 6.8	Verifying New Common Q System Functionality	-	Closed Not Applicable to AP1000	-
PSAI 6.9	Modifications to Plant Procedures or TS due to installation of Common Q	COL Item 13.5-1	No	Completion Stage is Plant Specific
PSAI 6.10	Performance of FMEA for plant specific applications of Common Q	-	Closed	-
PSAI 6.11	Licensee to demonstrate Common Q Meets Requirements of HICB BTP-19	-	Closed	-
PSAI 6.12	Licensee to define methodology for Response Time Testing	DCD 17, Tier 1, Table 2.5.2 Item, 10	No	Installation Completion Stage is Plant Specific



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Status of Common Q PSAs and GOIs				
Item	Topic	ITAAC	Completed / Closed	Completion Stage
PSAI 6.13	Analysis of Capacity of Shared Resources	DCD 17, Tier 1, Table 2.5.2 Item, 11	No	Hardware and Software Test Phase September 2012
PSAI 6.14	Implementation of Common Q does not invalidate TMI Actions	-	Closed	-