

February 06, 2001

MEMORANDUM TO: Stuart A. Richards, Director
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Jack Cushing, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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SUBJECT: SUMMARY OF MEETING HELD ON DECEMBER 21, 2000, WITH
WESTINGHOUSE TO DISCUSS THE COMMON QUALIFIED
PLATFORM SAFETY EVALUATION OPEN ITEMS

On December 21, 2000, a public meeting was held at the Nuclear Regulatory Commission (NRC) Headquarters office in Rockville, Maryland, between members of Westinghouse and the NRC staff. The list of attendees is attached. The purpose of the meeting was to discuss the process for closing the open items in the safety evaluation (SE) for the Westinghouse topical report, CENPD-396-P, "Common Qualified Platform" (Common Q).

The session from 8:00 a.m. to 8:45 a.m. was for the discussion of non-proprietary information and was open to the public. All in attendance were from either the NRC staff or Westinghouse.

The public session of the meeting consisted of two reports. Mark Stofko described briefly Westinghouse's understanding of the open items. Keith Mortensen presented a summary of the staff's expectations with regards to the open items.

Two types of open items are identified in Sections 6 and 7 of the SE. Section 6 identifies 14 plant-specific action items. Section 7 identifies 10 generic open items. The staff plans that each of the generic open items will eventually be resolved and closed. The staff expects that many of the plant-specific action items will continue to apply to all future implementations of the Common Q platform. However, some of the items identified as plant-specific may be specific to the first implementation of a type of Common Q replacement and may become referenceable for future similar implementations.

At 8:45 a.m. the public session was closed and the proprietary session began. The discussion of actions needed to close the generic open items and plant-specific items involves design information that is proprietary and was, therefore, conducted in the closed session of the meeting.

It was agreed that Westinghouse would likely have to submit two types of submittals for the resolution of open items: (1) revisions to the existing topical report or its existing appendices, and (2) supplemental (i.e., new) reports. The staff asked that Westinghouse identify the open items it intends to close with each submittal. There should be no new open items resulting from the staff's evaluations of the information submitted to close open items.

Westinghouse proceeded to present its understanding and questions regarding each of the 10 generic open items (7.1 through 7.10) and 3 plant-specific action items (6.3, 6.11, and 6.14). The balance of the meeting was devoted to the discussion of Westinghouse's plans and the staff's expectations for closing the 10 generic open items and to the 3 above-mentioned plant-specific action items.

At the close of the discussions, Westinghouse summarized their planned actions and grouped them into four groups: (1) Common Q products requiring near-term completion of development and/or qualification testing, (2) issues requiring clarification or additional documentation, (3) Common Q products requiring future development and/or qualification testing, and (4) plant-specific action items for which Westinghouse requests clarification.

(1) Common Q Products Requiring Additional Near-Term Development and/or Qualification Testing

Westinghouse stated that the documentation for the near-term development and/or qualification activities would be available in Westinghouse's Rockville office for the staff to audit. Westinghouse will notify the staff by letter when this documentation is available. This applies to the following generic open items and associated products:

- 7.1 S600 analog input module
- 7.2 Power supply
- 7.3 Watchdog timers (one internal to the PM646A and one external)
- 7.5 PM646A processor module
- 7.6 Flat panel display system (FPDS) and the above four products

The staff will complete and report on its review of this additional documentation when it is made available.

(2) Issues Requiring Clarification or Additional Documentation

Westinghouse stated that the information needed to allow the staff to close some of these open items can be found in the existing submittals. Westinghouse agreed to indicate in writing by early February where in the existing submittals the staff may find the information needed to allow the staff to close some of these open items. For others, Westinghouse will submit additional information. The staff will re-examine previously submitted documents or audit additional documentation to evaluate these items.

The staff agreed that it will attempt to either close or clarify these items by issuing either an evaluation or a formal request for additional information within 30 days of the receipt of this information. This applies to the following items:

- 6.3 Restricted use of the FPDS (This is currently a plant specific item but the staff agrees that it might be closed generically)
- 7.4 Software configuration control agreement with QNX Software Systems Limited (QSSL) for the QNX operating system
- 7.7 Software module testing

- 7.9 Interchannel communication between safety and non-safety divisions (part of the Integrated Solution)
- 7.10 Multi-channel operator workstations (part of the Integrated Solution)

(3) Common Q Products Requiring Future Development and/or Qualification Testing

There is one item in this category:

- 7.8 Loop Controllers

Westinghouse told the staff that it would schedule submittals for this item after completion of Phase 3 of the Common Q development cycle.

(4) Plant-Specific Action Items for which Westinghouse Requests Clarification

The following plant-specific action items will continue to apply, but Westinghouse has requested clarification regarding the staff's requirements:

- 6.11 Defense against common-mode failure (and plant-specific bounding analysis)
- 6.14 Avoid the invalidation of previous Three Mile Island (TMI) action plan commitments

With regards to Item 6.11, the staff will review Westinghouse's additional information regarding the bounding analysis for defense in depth and diversity. The staff will then provide clarification through a letter to Westinghouse.

With regards to Item 6.14, the staff has no intent to elevate the importance of TMI action items over the importance of the 10 CFR Part 50, Appendix A, General Design Criteria (GDCs) or any design-basis items. The bottom line is that the licensee must ascertain that the implementation of a Common Q digital replacement does not render invalid any of the plant's previously accomplished protection or safety functions, including TMI action items. TMI action items get particular mention in the SE because these are treated separately from the GDCs and other criteria in the NUREG-0800, Standard Review Plan, Table 7-1, "Acceptance Criteria and Guidelines for Instrumentation and Control Systems."

During the meeting, the staff and Westinghouse discussed the "heartbeat" and human/machine interface considerations with respect to the FPDS. These considerations will be further addressed by Westinghouse during the detailed design of the FPDS for the post-accident monitoring system (PAMS) and the core protection calculator system (CPCS).

Westinghouse stated that the detailed design work that is being done on the PAMS and CPCS may lead to modifications in the CPCS architecture and to the Software Programming Manual. If this occurs, Westinghouse will provide revisions for the staff's evaluation.

The staff proposed that it might review Westinghouse's documentation of software development work that is now underway for the PAMS and CPCS designs. Arrangements will be made for the staff to visit the Westinghouse site where this work is being done.

Mr. Marinos committed that Keith Mortensen would continue as the lead reviewer for Common Q issues. He agreed that this is key to meeting these schedules and minimizing the review costs.

Westinghouse proposed that a meeting be held, possibly in February 2001, regarding the possibility that some of the plant-specific action items may have aspects that are specific to the first implementation of a type of Common Q replacement and may become referenceable for future implementations of that type of replacement.

Project No. 692

Attachment: Attendance List

cc w/att: See next page

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ATTENDANCE LIST FOR MEETING BETWEEN
NRC AND WESTINGHOUSE NUCLEAR AUTOMATION
ON COMMON QUALIFIED PLATFORM OPEN ITEMS
DECEMBER 21, 2000

NAME	ORGANIZATION
Jack Cushing	NRC/NRR/DLPM/LPD4
Angelo Marinos	NRC/NRR/DE/EEIB
Keith Mortensen	NRC/NRR/DE/EEIB
Eric J. Lee	NRC/NRR/DE/EEIB
Ken Scarola	Westinghouse Nuclear Automation
Marty Ryan	Westinghouse Nuclear Automation
Mark Stofko	Westinghouse Nuclear Automation
Denny Popp	Westinghouse Nuclear Automation
Charlie Brinkman	Westinghouse Nuclear Automation

ATTACHMENT