

October 31, 2006

APPLICANT: Westinghouse

SUBJECT: SUMMARY OF THE OCTOBER 3, 4 AND 5, 2006, OPEN AND CLOSED MEETING WITH WESTINGHOUSE TO DISCUSS AP1000 INSTRUMENTATION AND CONTROLS

On October 3, 4, and 5, 2006, an open and closed meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Westinghouse, at the Westinghouse Office in Monroeville, PA. The purpose of the meeting was to discuss the AP1000 instrumentation and control (I&C) protection and safety monitoring system (PMS) issues. A list of meeting attendees is included as Enclosure 1, and the topics discussed is included as Enclosure 2. Enclosure 3 contains Westinghouse's meeting handout, which can be accessed through the Agencywide Documents Access and Management System (ADAMS). This system provides text and image files of NRC's public documents. The handout mentioned above may be accessed through the ADAMS system under Accession No. ML062910507. If you do not have access to ADAMS or if there are problems in accessing the handouts located in ADAMS, contact the NRC Public Document Room reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to pdr@nrc.gov. A summary of the meeting is included below.

Westinghouse started the meeting by discussing their pre-application activities as they relate to the AP1000 design certification and how the technical reports are submitted to close combined license (COL) information items or document completion of design acceptance criteria (DAC). The technical reports are submitted as part of the NRC design centered review approach. Westinghouse plans to submit a revised design control document in May 2007. They stated that the planning phase of the I&C DAC have been completed and are ready for NRC review.

During the closed portion of the meeting, Westinghouse discussed the design and implementation process for addressing the I&C DAC. They described their various phase documents such as: design requirements, system definition, hardware and software development, system integration and test, and installation. Westinghouse discussed the various plans and associated documents which satisfy the requirements of branch technical position-14. The NRC staff audited some of these documents, which are listed in Enclosure 4, to gain an understanding of what they contain.

Next, Westinghouse described, at a high level, the I&C architecture, including the major systems and the interfaces between them. In particular, Westinghouse discussed the PMS design. In addition, they described the various technical reports, which, have been submitted to the NRC staff for review, and how they close out COL information items. Lastly, Westinghouse discussed some proposed additional technical reports planned for submission to the NRC staff.

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In addition to the presentations, Westinghouse gave the NRC staff a tour of an early AP1000 main control room mock up. Also, the NRC staff was given a tour of various cabinets and control room panels, that had been built by Westinghouse to support an upgrade at Ringhals 2, a Swedish reactor.

Please direct any inquires concerning this meeting to me at 301-415-1313, or sdb1@nrc.gov.

/RA/

Steven D. Bloom, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Project No. 740

Enclosures:

1. List of Attendees
2. Topics
3. AP1000 PMS Planning Activities Phase 1 (ML062890150)
4. List of documents audited

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**Meeting with Westinghouse Related
Technical Reports Related to Instrumentation and Controls**

**Tuesday, Wednesday, and Thursday, October 3, 4 and 5, 2006
11:30 a.m. to 5:00 p.m., 8:30 a.m. to 5:00p.m., and 8:30 a.m. to 12:45 p.m.
Westinghouse Offices, Monroeville, PA**

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Agenda for Meeting with Westinghouse Regarding Instrumentation and Control Issues
October 3, 4 and 5, 2006, Westinghouse Office, Monroeville, PA

Tuesday, October 3, 2006

11:30 a.m. - 11:45 a.m.	Introduction and Meeting Objectives
11:45 a.m. - 12:45 p.m.	Licensing Status and Process Design Certification Status COL Information Items Design Changes DAC COL Application Content
12:45 p.m. - 1:15 p.m.	Lunch
Closed Session Begins	
1:15 p.m. - 1:45 p.m.	Design and Implementation Process Overview
1:45 p.m. - 3:15 p.m.	Phase 1 Overview and Document Discussions
3:15 p.m. - 3:30 p.m.	Break
3:30 p.m. - 5:00 p.m.	MCR Demo

Wednesday, October 4, 2006

8:30 a.m. - 9:45 a.m.	Architecture
9:45 a.m. - 10:30 a.m.	PMS Design
10:30 a.m. - 10:45 a.m.	Break
10:45 a.m. - 11:30 a.m.	PMS Design (Overview)
11:30 a.m. - 12:30 p.m.	Overview of Chapter 7 Technical Reports TR 28 Setpoint Methodology TR 42 Common Q Generic Issue Resolutions TR 43 FMEA/SHA TR 39-Functional Logic Changes
12:30 p.m. - 1:30 p.m.	Lunch
1:30 p.m. - 5:00 p.m.	NRC Review of Phase 1 Documents

Thursday, October 5, 2006

8:30 a.m. - 10:00 a.m.	Common Q Tour
10:00 a.m. - 10:15 a.m.	Break
10:15 a.m. - 11:15 a.m.	NRC Questions/Feedback on Phase 1 Documents
11:15 a.m. - 12:15 p.m.	Plan Going Forward Actions Additional TRs Phase 2 and Phase 3 Activities and Schedule
12:15 p.m. - 12:45 p.m.	Open Public Meeting Summary
12:45 p.m.	Adjourn

Enclosure 3:

Westinghouse Hand-out -
“AP1000 PMS Planning Activities Phase 1”

ML062890150

Documents Audited During Meeting with Westinghouse On Instrumentation and Control

October 3 - 5, 2006

1. RRAS AP1000 NuStart I&C Program Project Plan
2. RRAS AP1000 NuStart I&C Program Project Quality Plan
3. AP1000 NuStart Protection and Safety Monitoring System Project Plan
4. AP1000 NuStart Protection and Safety Monitoring System Software Project Plan
5. Software Program Manual for Common Q Systems (WCAP-16096-NP-A)
6. Design Process for Common Q Safety Systems
7. Verification & Validation Process for the Common Q Safety Systems
8. Testing Process for Common Q Safety Systems
9. Common Q Software Configuration Management Guidelines
10. Coding Standards & Guidelines for Common Q Systems
11. AP1000 NuStart Protection and Safety Monitoring System Project Concept Phase V&V Summary Report

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