

March 30, 2010

MEMORANDUM TO: Stacey L. Rosenberg, Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Eric E. Bowman, Project Manager /RA/
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 4, 2010, PARTIALLY CLOSED MEETING WITH
WESTINGHOUSE ELECTRIC COMPANY

On March 4, 2010, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Westinghouse Electric Company (Westinghouse) at NRC Headquarters, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss updates to Westinghouse's Common Qualified (Common Q) Platform and the Software Program Manual (SPM). A list of attendees is provided as Enclosure 1.

Scope

Westinghouse presented details on Common Q updates. Proprietary and nonproprietary versions of their presentation are available in the Agencywide Document Access and Management System (ADAMS) as accession numbers ML100610439 and ML100700391 respectively.

Component Interface Module

Westinghouse provided an update of their licensing plans for a Component Interface Module (CIM) in the Common Q Topical Report, a version of which is currently under review by the Office of New Reactors (NRO) as part of the AP1000 Protection System. Westinghouse indicated that while there may be some generic aspects to the CIM, implementation will be for the most part application specific and they have decided not to seek generic approval. As a result, Generic Open Item 7.8, from the prior safety evaluations dated August 11, 2000, ADAMS Accession No. ML003740165, June 22, 2001, ADAMS Accession No. ML011690170, and February 24, 2003, ADAMS Accession No. ML030550776 will remain open.

Common Q Generic Change Process

Westinghouse provided further details on a proposed generic change process for Common Q. This process would include screening and evaluation criteria for evolutionary changes to the system in order to determine the documentation necessary for use in a licensing action. The NRC staff provided feedback on the process and shared the following recommendations that had been provided to another vendor on the subject:

1. While early discussions of change screening and evaluation processes have compared them to those allowed under Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.59, that comparison can be confusing and should be avoided.
2. Changes to a system described in a Topical Report that has been approved for referencing in licensing actions by the NRC that have been screened or evaluated by a change control process should not be characterized as having been approved by the NRC. Some level of approval of the changes will always be required, but the screening and evaluation process will potentially streamline the review process by allowing audits of some changes rather than docketing of all changes.
3. The change process should not use the phrase "NRC approval not required" as a potential end result because this is not the case.

Alternate Flat Panel Display System (FPDS)

Westinghouse provided details on development of operating systems for an alternate FPDS that may be included in a future revision to the Common Q Topical Reports, but will not be included in this revision.

Document Schedule

Westinghouse reviewed the proposed schedule for document submittals for the revision of the Topical Reports, indicating that the generic change process discussed above will likely be included as a separate topical report. The NRC staff provided feedback on the document schedule and submittal requirements, which are discussed below. It was agreed that an additional meeting in the mid-April to early-May timeframe would be beneficial prior to submittal of the revised Topical Reports. Westinghouse presented detailed plans for addressing each document identified in Draft Digital Instrumentation and Controls Interim Staff Guidance (DI&C-ISG-06), "Licensing Process," Enclosure 2 to ADAMS Accession No. ML093491083. The staff provided detailed feedback on each document.

Westinghouse and the NRC staff discussed which documents in the DI&C-ISG-06 list are not applicable to a platform topical report. The NRC staff stated that many documents could be issued in both a plant specific form and a platform specific form. Review of a topical report would not require submittal of plant specific documents, but would require submittal of their platform specific counterparts. Examples of these documents are:

1. Application Theory of Operation,
2. Application Software Requirements Specification,
3. Application System Description,
4. Application System Requirements Specification,
5. Application Software and Hardware Architecture Descriptions,
6. Application System Requirements Specifications,
7. Application Software Design Specifications,
8. Application Test Documentation,
9. Application Verification and Validation Documentation, and
10. Application Software Development Plans - May be addressed in a software program manual

Some of the documents in the DI&C-ISG-06 list would only be applicable to a plant specific application. These documents would include:

1. Diversity and defense-in-depth (D3) Analysis to address Branch Technical Position (BTP) 7-19, "Guidance for Evaluation of Diversity and Defense-in-Depth in Digital Computer-Based Instrumentation and Control Systems" ADAMS Accession No. ML070550720;
2. Failure Modes and Effects Analysis (FMEA) to address Institute of Electrical & Electronics Engineers Standard 603-1991, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," (IEEE 603) Clause 5.1;
3. Design Report on Computer Integrity, Test and Calibration to address IEEE 603 Clause 5.5, 5.7, and 5.10;
4. Safety Analysis;
5. Final Logic Diagrams;
6. Software Project Risk Management Report;
7. Software Operations Plan;
8. Software Installation Plan;
9. Software Maintenance Plan;
10. Software Training Plan;
11. Software Safety Plan; and
12. Reliability Analysis Report to address IEEE 603 Clause 5.15.

Quality Assurance procedures are normally not part of a DI&C review based on the assumption that sufficient information exists in platform or project specific documentation to address regulatory review criteria.

Since these will be updates to previously reviewed topical reports the NRC staff identified the following suggestions to facilitate the review:

1. Westinghouse should identify which DI&C-ISG-06 platform specific documents have not changed. These documents will not be re-evaluated in the review of the updates.
2. Commercial grade dedication documentation is required in a topical report for all new or changed commercial equipment proposed for use in safety-related applications.
3. A topical report should include all required qualification documentation for the new or changed equipment proposed (i.e., defining the qualification envelope). It is in the plant specific application that a determination is made if the equipment is appropriate for its intended use (i.e., does the qualification envelope encompass the plant application).
4. Tool analysis documentation should be provided for new or changed tools that are relied upon (i.e., outputs of the tools are not validated).

S. Rosenberg

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Miscellaneous

No members of the public were in attendance.

Please direct any inquiries to me at 301-415-2963, or Eric.Bowman@nrc.gov.

Enclosure:

List of Attendees

cc w/encls: See next page

S. Rosenberg

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Miscellaneous

No members of the public were in attendance.

Please direct any inquiries to me at 301-415-2963, or Eric.Bowman@nrc.gov.

Enclosure:

List of Attendees

cc w/encls: See next page

ADAMS ACCESSION NO.: ML100700417 (Package) ML100700401 (Summary)
ML100430023 (Notice) NRC-001

OFFICE	PSPB/PM	PSPB/LA	EICB/BC	PSPB/BC	PSPB/PM
NAME	EBowman	DBaxley (EHylton for)	WKemper	SRosenberg	EBowman
DATE	03/11/2010	03/11/2010	3/25/10	3/30/10	3/30/10

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Memo to Stacey L. Rosenberg from Eric E. Bowman dated March 30, 2010

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COMPANY

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William Roggenbrodt

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Hulbert Li

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Westinghouse Electric

Project No. 700

cc:

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MEETING WITH WESTINGHOUSE TO DISCUSS UPDATES TO WESTINGHOUSE'S

COMMON QUALIFIED PLATFORM

MARCH 4, 2010

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ENCLOSURE