June 25, 2010

MEMORANDUM TO: John R. Jolicoeur, 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 JUNE 9, 2010, MEETING WITH CS INNOVATIONS

On June 9, 2010, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of CS Innovations (CSI) at NRC Headquarters, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss the submittal of a topical report (TR) on the Advanced Logic System (ALS). A list of attendees is provided as Enclosure 1.

Scope

CSI presented further details and clarification of the scope and approach for a Generic Topical Report on the ALS Platform and its development processes to supplement the information they provided in the October 28, 2009 meeting summarized at Agencywide Documents Access and Management System (ADAMS) Accession No. ML093230515. Proprietary and nonproprietary versions of their presentation materials are available in ADAMS as Accession Nos. ML101730315 and ML101730314 respectively.

Objectives

CSI informed the NRC staff that the objectives of the TR will include building on the recently approved version of the platform in the license amendment for modification to the Wolf Creek Generating Station main steam and feedwater isolation system (MSFIS) controls, discussed in the "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 181 to Renewed Facility Operating License No. NPF-42, Wolf Creek Nuclear Operating Corporation, Wolf Creek Generating Station," ADAMS Accession No. ML090610317. The Wolf Creek application had been a simple application of the platform, but required a myriad of letters comprising over eight thousand pages for approval. The TR will add building blocks for more complex systems to the platform and make use of the licensing process in Draft Digital Instrumentation and Controls Interim Staff Guidance (DI&C-ISG-06), "Licensing Process," Enclosure 2 to ADAMS Accession No. ML093491083, to simplify the review.

Platform Update

CSI provided proprietary details of planned applications and their approaches to diversity, communications and provision of a secure development and operation environment.

Interest from Utilities

CSI briefed the NRC staff on interest expressed by utilities in ALS, including plans for installation at Diablo Canyon Power Plant.

NRC Staff Feedback

The NRC staff provided the following feedback:

- The staff agreed with the proposal that the TR appendices will demonstrate the application of each platform feature as described within the body of the TR.
- The staff agreed with the proposal that the TR would explicitly provide a compliance matrix against DI&C-ISG-04, Revision 1, "Task Working Group #4: Highly-Integrated Control Rooms—Communications Issues (HICRc)," ADAMS Accession Number ML083310185.
- The staff agreed with CSI's stated intent to better address expectations and guidance with respect to independent verification and validation (IV&V).
- The staff agreed with the stated intent to align the equipment qualification methodology with Westinghouse Electric Company standard practices.
- During the discussion of IV&V, the staff noted that the review and approval would be more straightforward if the IV&V teams reflected the diversity of design teams.
- During the discussion of IV&V separation and independence, the staff recommended that each portion of V&V (number and type to be performed) should be described explicitly and that this description should identify the organizations, roles and degrees of independence.
- The staff recommended that the TR should contain the proposed approach to limit the duration for which a division, train, or channel might be left in bypass, as would typically be contained within a plant's Technical Requirements Manual.
- The staff noted that a portion of the proposed CSI architecture change could introduce an undetectable single-failure vulnerability depending on the level of diversity provided. Details of this potential vulnerability are proprietary.
- The staff agreed with the proposal that the conceptual Appendices provided with the TR would need to be revisited by plant-specific license amendment requests and that the TR would propose plant specific action items to be addressed by such license amendment requests.
- The staff agreed with the reorganization of the ALS Platform TR to segregate the platform from the application with the understanding that this will prove a favorable improvement that better enables future licensee references to the TR in the interest of efficient and effective safety evaluations.

- The staff recommended a plant specific item to ensure that the plant's programmatic procedures maintain control of the external Auxiliary Service Unit (ASU) when it is a non-permanently mounted device such as a general use laptop in order to adequately address configuration control and security vulnerabilities.
- The staff agreed to tentative plans to schedule and meet to discuss DI&C-ISG-06 enclosure B in order to perform a preliminary review of documentation mapping in support of the future Acceptance Review of the ALS TR.

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:
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OFFICE	PLPB/PM	PLPB/LA	EICB/BC	PLPB/BC	PLPB/PM
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DATE	6/24/2010	6/24/10	6/25/10	6/25/10	6/25/10

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Memo to John R. Jolicoeur from Eric E. Bowman dated June 25, 2010

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MEETING WITH CS INNOVATIONS TO DISCUSS SUBMITTAL OF A TOPICAL REPORT ON

THE ADVANCED LOGIC SYSTEM

JUNE 9, 2010

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ENCLOSURE