

July 26, 2007

MEMORANDUM TO: W. E. Kemper, Chief
Electrical Instrumentation and Controls Branch
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: Girija S. Shukla, Project Manager **/RA/**
Special Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE JUNE 14, 2007, MEETING WITH INDUSTRY
REPRESENTATIVES AND THE DIGITAL INSTRUMENTATION AND
CONTROLS (DIGITAL I&C) HIGHLY INTEGRATED CONTROL ROOM
– COMMUNICATIONS ISSUES TASK WORKING GROUP (TWG) TO
DISCUSS ISSUES RELATED WITH THE DIGITAL I&C PROJECT

On June 14, 2007, the U.S. Nuclear Regulatory Commission (NRC) Digital I&C Highly Integrated Control Room – Communications (HICR – Communications) Issues Task Working Group (TWG) and industry representatives of the Digital I&C Project held a Category 2 public meeting at NEI headquarters in Washington, D.C. The purpose of the meeting was to discuss HICR – Communications issues related to the Digital I&C project.

In the meeting the discussions included; (1) AREVA proprietary presentation on prioritization module; (2) Communications protocols, (3) NRC Office of Nuclear Regulatory Research (RES) international activities results; (4) NRC draft guidance outline & recommendations; (5) Multi channel Video Display Units (VDU) (HICR-Human Factors TWG staff also participated in this discussion)

The following items were discussed in the meeting in detail:

- AREVA proprietary presentation on the AV42 prioritization module.

AREVA made a proprietary presentation on their priority actuation and control system (PACS) communication concepts, and provided additional information on the AV42 prioritization module technology related to Communications. AREVA also explained Communications Independence between Safety and Non-Safety devices as it relates to the AV42 interfaces, and discussed any additional guidance needed in the area of digital communications, specifically for the Prioritization of Functions.

- Communications Protocols

Industry also discussed communications protocols and suggested that it is not a part of the original scope of the TWG and should be dropped. It was discussed that there is a concern that safety critical communications might be accepted over non-safety channels, with only software protocol to provide isolations.

- NRC draft guidance outline

A detailed discussion of the NRC draft guidance outline was held in the meeting. Concern was raised regarding use of the term “channel” and a recommendation was made to use the term “division” for new plants and use footnote to address use of “channel” for the operating plants. Recommendations were made to revise the draft guidance to recognize the difference between prioritization function and module.

- Multi-channel video display units

The NRC staff indicated that safety related components need safety related controls. It was suggested that the NRC staff identify regulations related to safety related components controlled by non safety related equipments. Industry will submit a white paper on minimum inventory to the HICR-HF TWG.

- NRC RES International Activities results by Oak Ridge National Lab (ORNL)

On behalf of the NRC RES, ORNL made a presentation on safety and non-safety communications and interactions in international nuclear power plants. NRC staff requested feedback from the industry on the presentation.

Summary of Action Items Assigned

The following key action items were assigned during the meeting:

- Industry:
 - Industry white paper on design aspects of communication protocol will be provided to the NRC by 6/30/07.
 - Industry comments on the NRC draft guidance document will be provided to the NRC before the next meeting on 7/5/07.
 - Industry white paper on Minimum Inventory will be submitted to the HICR-HF TWG.
- NRC:
 - The NRC staff will provide the industry with the NRC draft guidance document.
 - The NRC staff will consider the industry presentation on the credibility of the occurrence of multiple spurious signals from video display units in the NRC draft guidance document.
 - The NRC staff will develop a response to industry question on acceptability of non-safety related controls as the sole means of controlling safety-related components.
 - The NRC staff will set up the next HICR – Communications meeting for July 5, 2007.
 - The NRC staff will identify regulations related to safety related channels controlled by non safety related channels.

Following the meeting, the NRC staff expressed its appreciation to the industry for their participation and comments. An attendance list is provided in the enclosure. The meeting agenda can be found via the Agencywide Documents Access and Management System (ADAMS), Accession Number ML071520507. The AREVA presentation is provided in ADAMS as ML072050074 (proprietary) and ML072050078 (non-proprietary). The ORNL presentation is provided in ADAMS as ML072050081. Please direct any inquiries to Girija Shukla at 301-415-8439, or gss@nrc.gov.

Enclosure: List of Attendees

DISTRIBUTION:

PUBLIC	RidsNrrAdro	RidsNrrDpr	RidsNrrDprPspb	
RidsNrrDe	RidsNrrDeDpr	P. Hiland	K. Corp	B. Sosa
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ADAMS ACCESSION NO. **ML072050072**

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DATE	7/ 24 / 2007	7 / 26 / 2007

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ATTENDEES

MEETING WITH INDUSTRY REPRESENTATIVES AND THE DIGITAL I&C
HIGHLY INTEGRATED CONTROL ROOM – COMMUNICATIONS ISSUES
TASK WORKING GROUP

JUNE 14, 2007

INDUSTRY:

Benjamin Borrusch	AREVA	
Chris Rice	MPR	
James Ross	NEI	
Jennifer Thurkins	Westinghouse	
Jim McQuighen	Constellation	
Ken Scarola	MNES-NAE	
Mark Burzynski	AREVA	
Masatumi Utsumi	MHI	
Ron Jarrett	TVA	(On Phone)
Satoshi Hanada	MNES	
Shelby Small	AREVA	
Tom Hayes	Westinghouse	
Wes Bowers	Exelon	

NRC:

William Kemper	
Girja Shukla	
Kimberley Corp	
Royce Beacom	
Paul Rebstock	
Wilkins Smith	
J. Persinsky	
Gus Singh	
David Rahn	
Norbert Carte	
Eugene Eagle	
Mike waterman	
Gary Johnson	(LLNL)
Le Snelsen	(LLNL)
Thomas Wilson	(ORNL)
Bruce Bevard	(ORNL)
Kofi Korsah	(ORNL)
Roger Kisner	(ORNL)

ENCLOSURE