

January 19, 2012

MEMORANDUM TO: Thomas A. Bergman, Director
Division of Engineering
Office of New Reactors

Patrick L. Hiland, Director
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: Daniel J. Santos, Senior Technical Advisor */RA/*
Division of Engineering
Office of New Reactors

SUBJECT: SUMMARY OF DECEMBER 6, 2011, CATEGORY 2 PUBLIC
MEETING WITH THE NUCLEAR ENERGY INSTITUTE (NEI) TO
ADDRESS DIGITAL INSTRUMENTATION AND CONTROL (DI&C)
ISSUES

On December 6, 2011, a meeting was held between the Nuclear Regulatory Commission (NRC) and Nuclear Energy Institute (NEI). The purpose of the meeting was to have an executive level discussion in order to identify strategic Digital Instrumentation and Control (DI&C) issues for future engagement with industry, which are not a part of the existing programs and processes. The resulting action items from this meeting are documented in this meeting summary. Although other DI&C related issues were discussed, such as status of licensing amendment requests (LARs), cyber security, and research activities, the participants agreed that existing programs and processes address these topics. The discussion during the meeting resulted in four follow-up action items. A summary of the discussion points made by NRC, NEI and other industry representatives are summarized below, followed by the resulting action item, in the order they were discussed in the meeting.

1. NRC and Industry discussed the following lessons-learned from previous and current licensing and technical activities.
 - The Wolf Creek DI&C project was installed over two years ago, and used FPGA based architecture.

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- Diablo Canyon is the pilot for ISG-6 licensing process during which the Phase 0 meetings were very beneficial. Additionally, the matrix which mapped the location of documentation that was needed, as stipulated in ISG-6, was very beneficial. The efforts of ISG-6 are paying off; and it was helpful that the Diablo Canyon Diversity (D3) report was previously submitted and reviewed by the staff.
- A lessons-learned workshop needs to be held based on the staff experiences while conducting reviews using DI&C ISG-6.
- Routine meetings and conference calls are beneficial during the review process.

Resulting Action Item – Lessons-learned data needs to be collected; a filter will be applied to the data to extract generic items. This action will be led by the NRC.

2. Additionally, NRC and industry discussed the following.

- An NRC review or inspection is planned at the end of each software lifecycle process. Three insights from inspections are as follows: (1) Applicants/licensees have failed to adequately transfer requirements to procurement documents. (2) Inspection delays occurred because site documents were not ready; it would be useful to have documents available in an electronic reading room prior to the inspection. (3) Non-safety interfaces were not recognized and considered during installation.
- A need to communicate the generic findings to licensees in a format other than what can be found in the inspection reports; while the Information Notice is a format to do this, there have been instances in which many follow up items are only located in the staff's safety evaluation.

Resulting Action Item – This item is for future discussion; determine if there is a better way to communicate lessons-learned to the public. This action will be led by the NRC.

3. Further discussion between NRC and industry consisted of the following.

- The need exists to discuss the licensing and technical aspects of topical reports for digital platforms. There needs to be a way to effectively engage in a process that supports the change management activities with real time inspection needs, possibly via a vendor workshop, or a public meeting

Resulting Action Item – Facilitate developing a process for change management of topical reports for digital platforms. This action will be led by NRC; NEI will provide input and recommendations for the appropriate forum.

4. Discussion was held on the following.

- The need exists for enhancements to the Request for Additional Information process so that the licensee can provide information faster and more accurately, for example, via conference calls. This would be a communication enhancement.

Resulting Action Item – As a topic for the next meeting, have further discussions with industry concerning possible communication enhancements. The action will be led by the NRC.

The meeting concluded with a consensus to meet again in six months. The agenda items will include a status report of progress of the identified action items and their priority. Additionally, if any new strategic issues and associated action items are identified, they will be discussed at this time. Daniel Santos, the NRC point of contact, and Gordon Clefton, the NEI point of contact, will coordinate stakeholder participation.

Enclosures:

1. Meeting Agenda
2. Meeting Attendee List

cc w/encl:

Mr. Gordon Clefton, Sr. Project Manager,
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
gac@nei.org

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**AGENDA FOR PUBLIC MEETING
UNITED STATES NUCLEAR REGULATORY COMMISSION
DIGITAL I&C ACTIVITIES UPDATE MEETING**

**December 6, 2011
10:00 a.m. – 12:00 p.m.**

PURPOSE: To exchange information with industry on issues related to Digital Instrumentation and Controls.

- | | |
|--|------------|
| 1) Introductions – | 20 minutes |
| Logistics | |
| Attendees | |
| Telephone participants | |
| Introductory remarks by NRC management | |
| Introductory remarks by Industry | |
| 2) Current Activities – | |
| Industry – | 25 minutes |
| Plant Installations | |
| Duke-Energy Oconee | |
| Wolf Creek | |
| Licensing Process Pilot (DI&C-ISG-06 @ Diablo Canyon) | |
| Phase Zero Meetings | |
| LAR Submittal | |
| Path-forward Schedule | |
| NRC - | |
| NRC I&C inspections – | 10 minutes |
| 3) Future Activities that require engagement with industry – | |
| Topical Reports – | 10 minutes |
| ISG to Firm Guidance Status – | 10 minutes |
| Cyber security – | 10 minutes |
| Research activities – | 10 minutes |
| Others – | 10 minutes |
| 4) Public Interactions - | 15 minutes |

Attendee List
Meeting of the Digital Instrumentation and Control (I&C) Steering Committee with the
Nuclear Energy Institute (NEI) to Address Digital I&C Issues

Location - TWFN 7A01

Name	Organization
Mark Stofko	Westinghouse
Chris Massaro	Northrup Grumman
Jeff Burns	Northrup Grumman
Ty Rogers	GE Hitachi
Patricia Campbell	GE Hitachi
Jana Bergman	Scientech
Julia Forbes	Progress Energy
James Downs	NRC/NMSS
Lance Rakovan	NRC/OEDO
Ralph Costello	NRC/NSIR
Ron Albert	NRC/NSIR
Kirk Melson	Excel Services Corporation
William Gross	NEI
Sushil Birla	NRC/RES
David Desaulniers	NRC/NRO
Bob Hirmanpour	Southern
Terry Jackson	NRC/NRO
Deirdre Spaulding-Yeoman	NRC/NRO
Daniel Santos	NRC/NRO
Tom Bergman	NRC/NRO
Pat Hiland	NRC/NRO
Russell Sydnor	NRC/RES
Paul Rebstock	NRC/RES
Gregg Clarkson	Rock Creek Technologies
Jerry Mauck	10M
Gordon Clepton	NEI
Alex Marion	NEI
Peter Rosecrans	Lockheed Martin
Ted Quinn	Technology Resources - Invensys
Patricia Troy	Lockheed Martin
Ken Scarola	Nuclear Automation Engineering
Michael Layton	NRC/NSIR
C. Craig Harbuck	NRC/NRO
Eugene O. Eagle Jr.	NRC/NRO
Kati Austgen	NEI
David L. Rahm	NRC/NRR
Paul Pieringer	NRC/NRO
Joe Murray	Lockheed Martin

Location - Via VTC

Name	Organization
Mark Lesser	NRC/Region II
Shakur Walker	NRC/Region II

Location - Via Conference Call

Name	Organization
Colen A. Frix	Duke Energy
Nancy Chapman	Bechtel Power Corporation
Scott B. Patterson	Diable Canyon Power Plant
Michael Wiwel	PSEG
Marc Hayden	NuScale
Steve Blomgren	NuScale
Ted Hough	NuScale
Charles Weaver	NuScale
Richard Wood	Oak Ridge National Laboratory
Nathan Faith	Exelon
William Kemper	NRC/NRR
Mark Stofko	Westinghouse
Chaz Fisher	Northrup Grumman
Linda Conklin	San Onofre