

SCHEDULING NOTE

Title: Briefing on Digital Instrumentation and Control (Public Meeting)

Purpose: To discuss with the Commission the proposed rulemaking for incorporating by reference the Institute of Electrical and Electronics Engineers Standard 603-2009, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating," (IEEE 603) and to discuss other key regulatory and industry activities for addressing industry needs in licensing digital instrumentation and control (I&C) systems.

Scheduled: December 17, 2015
1:00 pm

Duration: Approx. 3 hours

Location: Commissioners' Conference Room, 1st fl OWFN

Participants: **Presentation**

External Panel **50 mins.***

Robert Coward, Principal Officer, MPR Associates Inc.,
Nuclear Energy Institute, Digital I&C Executive Working Group 10 mins.

Topic: Industry views on digital I&C issues:

- Perspectives on IEEE 603 rulemaking and communication independence conditions
- Perspectives on digital cybersecurity
- New reactor I&C construction

John Connelly, Engineering Manager – Capital Projects, Exelon Nuclear 10 mins.

Topic:

- Industry experience with digital I&C upgrades
- Perspectives on IEEE 603 rulemaking and interim staff guidance

Daryl Harmon, Consulting Engineer, Operating Plant Business,
Westinghouse Electric Company 10 mins.

Topic:

- Stakeholder perspectives on IEEE 603 rulemaking
- Perspectives on defense-in-depth and diversity and common cause failure

Darren Cofer, Fellow, Rockwell Collins Advanced Technology Center 10 mins.

Topic:

- Perspectives on software analysis and verification of high-integrity digital systems in the aerospace and military industries

William Scherlis, Professor, Carnegie Mellon University, and Director of the Institute for Software Research 10 mins.

Topic:

- Perspectives on addressing software reliability, software assurance, and cybersecurity for safety-related digital systems

Commission Q & A 40 mins.

Break 5 mins.

NRC Staff Panel 50 mins.*

Victor McCree, Executive Director for Operations

John Lubinski, Acting Deputy Office Director for Engineering, NRR

Richard Stattel, Senior Electronics Engineer, NRR

John Tappert, Director of Division of Engineering, NRO

Deanna Zhang, Senior Electronics Engineer, NRO

Topics:

- Background of Digital I&C and Recent Lessons Learned
- Proposed Rule: Incorporation by Reference of the IEEE 603-2009 Standard
 - Overview of the IEEE 603 standard and use in digital I&C licensing
 - Changes from the 1991 to the 2009 edition of the standard
 - Discussion of applicability & additional conditions in the proposed rule
 - Potential impacts of rule on operating plants and new reactors
 - Stakeholder engagement and feedback on the proposed rule
- Other Key Regulatory Initiatives
 - Draft NRC Digital Instrumentation and Control Action Plan
 - Examination of NRC position on software common cause failure and relationship to IEEE 603-2009 rulemaking
 - Review of draft NEI guidance for digital modifications under 10 CFR 50.59
 - Enhancement of licensing process guidance in Digital I&C Interim Staff Guidance-06 and design specific review standards for new reactors
 - Examination of policy for reviewing cybersecurity design features during licensing

Commission Q & A

40 mins.

Discussion – Wrap-Up

5 mins.

*For presentation only and does not include time for Commission Q & As