UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SECRETARY

August 21, 2018

Mr. George Romanski
Chief Scientific and Technical Advisor for
Aircraft Computer Software
Federal Aviation Administration

Dear Mr. Romanski:

The U.S. Nuclear Regulatory Commission (NRC) is pleased that you will participate in a public Commission briefing on digital instrumentation and control, on October 25, 2018, at 9:00 a.m. The Commission is interested in hearing the Federal Aviation Administration's perspectives on approaches for software reliability in critical safety systems, experience in the aviation industry guidance and standards for digital I&C; and digital implementation and operational experience. The meeting will be held in the Commissioners' Conference Room on the first floor of the NRC's Headquarters building at One White Flint North, Rockville, Maryland. I am enclosing a copy of the meeting agenda for your information. My staff will keep you informed of any updates to the agenda.

To assist the Commission in preparing for the meeting, please e-mail any written material, including slides, to Ms. Denise McGovern (Denise.McGovern@nrc.org) and Ms. Pamela Shea (Pamela.Shea@nrc.gov) in the Office of the Secretary, by **October 18, 2018**, so that it can be distributed to the Commission for review in advance of the meeting. PowerPoint is the preferred format, but other electronic presentation formats may be used. This Commission meeting will be webcast live at the Web address: www.nrc.gov, and materials provided for the meeting will be posted on the NRC public website prior to the meeting: http://www.nrc.gov/reading-rm/doc-collections/commission/tr/. If you have any questions, please contact Ms. McGovern at 301-415-0681.

Your presentation at the Commission meeting should be based on the assumption that Commissioners are familiar with the content of your written material. Please plan your oral presentation for about eight (8) minutes, discussing the important points on which you wish to focus the Commission's attention. Please avoid the use of acronyms where possible. If you do use acronyms, please explain them during your presentation.

The NRC Headquarters building is located opposite the White Flint Metro Station on Rockville Pike and Marinelli Drive, Rockville, Maryland. The White Flint Metro Station is on the Red Line of the Washington area subway system. Reserved visitor parking for Commission guests is available. If you wish to use reserved parking, please notify Ms. McGovern in advance. If reserved parking has been arranged, please check-in with the security staff at the entrance to the NRC campus on Marinelli Drive when you arrive. A Security Guard will call for an escort.

Please note that visitors will be screened through metal detectors, will have their packages X-rayed, and will be required to present a picture identification card prior to signing in at the registration desk.

Sincerely,

Annette L. Vietti-Cook

Enclosures:
Draft Agenda

AGENDA

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

Purpose: To discuss with the Commission the progress in implementing the regulatory infrastructure for digital and instrumentation control (DI&C) systems, and industry initiatives in implementing DI&C

Scheduled: **October 25, 2018**
9:00 am

Duration: Approx. 3 hours

Location: Commissioners' Conference Room, 1st Floor OWFN

Participants: **Presentation**

External Panel **40 mins.***

Bill Pitesa, Chief Nuclear Officer, Nuclear Energy Institute 8 mins.*

Topics:

- Industry perspectives on:
  - Progress on publishing and implementing guidance for digital I&C upgrades at nuclear power plants
  - Planned digital I&C capital improvements at nuclear power plants
  - NRC licensing and oversight of digital I&C
  - Transformation Team DI&C recommendations

Frank Novak, Senior Systems Engineer, GE Hitachi Nuclear Energy, Instrumentation and Control Group; and Chair of IEEE Nuclear Power Engineering Committee (NPEC) Working Group 6.3 8 mins.*

Topics:

- IEEE perspectives on:
  - Recent digital I&C upgrades at nuclear power plants
  - NRC licensing of digital I&C
  - NRC Transformation Team recommendations

Clayton Scott, Senior Vice President – Deputy, Global I&C Business, Framatome Inc. 8 mins.*

Topic:

- Vendor's perspectives on international practices and standards, commercial grade dedication, and NRC's digital I&C platform approval process

George Romanski, Chief Scientific and Technical Advisor for Aircraft Computer Software, Federal Aviation Administration — 8 mins.*

Topics:

- Federal Agency's perspectives on approaches for software reliability in critical safety systems, experience in the aviation industry guidance and standards for digital I&C
- Digital implementation and operational experience

TBD, Professor, — 8 mins.*

Topic:

- Subject matter experts views on addressing common cause failure hazards, addressing evolving digital technologies, and perspectives on regulatory acceptance of digital I&C

Commission Q & A — **50 mins.**

Break — **5 mins.**

NRC Staff Panel — **40 mins.***

Margaret Doane, Executive Director for Operations
Ho Nieh, Director, Office of Nuclear Reactor Regulation (NRR)
Eric Benner, Director, Division of Engineering, NRR
Michael Waters, Chief, Instrumentation and Control Branch, NRR
Rossnyev Alvarado, Digital I&C Engineer, NRR
Dinesh Taneja, Sr. Electronics Engineer, NRO

Topics:

- Status of Digital I&C Integrated Action Plans (SECY-16-0070)
    - Digital Upgrades under 10 CFR 50.59: Status of guidance development, implementation and inspection training and lessons-learned in guidance improvements
    - New Licensing Approaches for Major Digital Systems: Licensing and digital I&C platform approval status and status of guidance development, and future risk-informed approaches and digital I&C categorization
    - Addressing Digital Common Cause Failure (CCF): Key safety and regulatory issues; NRC and industry guidance development; and graded approaches for evaluating diversity and defense-in-depth
    - Broader Modernization Activities: Commercial grade dedication; risk-informing initiatives and CCF research; advanced reactor I&C framework; as well as relevant transformation team recommendations

Commission Q & A **50 mins.**

Discussion – Wrap-Up **5 mins.**

Documents:

- SECY-18-0060: Achieving Modern Risk-Informed Regulation https://www.nrc.gov/docs/ML1811/ML18110A186.html

- Slides due: October 18, 2018