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May 20, 2016

Ms. Cindy Bladey  
Office of Administration, OWFN-12-H08  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** Submittal of Industry Comments on NRC "DRAFT Integrated Action Plan to Modernize Digital Instrumentation and Controls Regulatory Infrastructure" (May 12, 2016 via ADAMS - Accession No. ML16132A579; Docket ID NRC-2016-0068)

**Project Code: 689**

Dear Ms. Bladey:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)<sup>1</sup> appreciates the opportunity to provide initial comments on the "DRAFT Integrated Action Plan to Modernize Digital Instrumentation and Controls Regulatory Infrastructure" issued May 12, 2016 via ADAMS Accession No. ML16132A579; Docket ID NRC-2016-0068.

The draft Integrated Action Plan (IAP) is the latest draft response to the Staff Requirements Memorandum (SRM) SECY-15-0106 (ML16058A614), which directed the staff to develop an integrated strategy to modernize the NRC's digital instrumentation and control (DI&C) regulatory infrastructure. NEI provided written comments on the March 30, 2016 draft of the IAP to the NRC in a letter dated April 22, 2016. NEI recognizes and appreciates the integration by the staff of many of the concepts and recommendations that we provided in this letter into the May 12, 2016 draft of the IAP. NEI representatives, NRC staff, and members of the public participated in a Category 2 public meeting on May 16, 2016. During this meeting NEI provided a verbal summary of key comments from the industry on the May 12, 2016 draft of the IAP. This letter provides additional discussion on our key comments as well as some additional thoughts for staff consideration.

Given the limited time available since NEI received the May 12, 2016 draft of the IAP, we have not been able to do a complete and thorough review of this document. We are providing this letter as a follow-up to our verbal comments provided on May 16, 2016 during the public meeting.

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<sup>1</sup> NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

**Key Industry Comments:**

- (1) Collaboration: The IAP Executive Summary paragraph 1 states "Consistent with Commission direction, this plan describes a strategy that engages external stakeholders...". While there has been engagement, we believe the process of working together collaboratively can be significantly improved and should be addressed further in the action plan. The SRM requires the staff to "engage in public workshops and meetings." There have been two draft IAPs issued for public comment by the staff with corresponding industry comments submitted (including this letter) along with two public meetings that have been performed in series over several months. We suggest the IAP provide for additional interactive collaboration opportunities and workshops to facilitate more efficient & direct communication.
- (2) Barrier Removal: The SRM requires staff to "modernize the NRC's digital instrumentation and control (I&C) regulatory infrastructure." In discussions with the NRC, industry has been assured that the staff is looking at implementing significant change to remove barriers to wide application of digital technology, not just fine tuning or clarifying existing regulatory positions. Our concern is that the IAP uses the term "update" (IAP page 3, paragraph 2), which implies otherwise. We suggest that the plan acknowledge consideration for the need to make significant regulatory changes as well as providing necessary updates.
- (3) Significant Challenges: NRC staff has requested industry identify items that represent issues of significant challenge that, if not addressed, provide insurmountable barriers to future submittal of safety system upgrade applications. The items of significance highlighted in our April 22, 2016 letter included:
  - a. Resolution of Common Cause Failure (CCF) concerns in a direction that facilitates efficient design and the capability to fully realize the safety and economic benefits available from digital technology,
  - b. Alignment on improved guidance for performing 10 CFR 50.59 reviews of DI&C upgrades,
  - c. Incorporation of a phased approach to the licensing review process for DI&C submittals.

While the CCF and 50.59 topics are addressed in detail in the IAP, the phased approach to licensing review issues, and in particular a change in the approach to NRC approvals required at the Factory Acceptance Test (FAT) stage, is lightly addressed and not highlighted commensurate with its importance in the IAP. We strongly recommend providing additional visibility to this topic given the regulatory uncertainty associated with the current process that creates significant barriers to investment.

- (4) Integrated Schedule: We recommend that the schedule tasks / dates contained in the IAP be integrated with industry and other party actions. We suggest that the IAP evolve to include key tasks for both the NRC and the industry. Based on discussion at the May 16, 2016 public meeting it appears that NRC staff intent is to move in that direction as the plan evolves and is jointly executed.

- (5) IEEE Standard Development: The IAP, in Appendix 4a item (iii), states that future "activities will include NRC participation in the consensus standard development process for IEEE Std. 603". The May 16, 2016 public meeting clarified that NRC staff has begun initial "outreach" to IEEE but will also include industry in future interactions. We suggest that the IAP include an action to seek mutual agreement on appropriate industry and NRC IEEE involvement on future interactions to ensure that all parties have appropriate involvement in the standard development process.
- (6) CCF Technical Basis: On page 11 of the IAP, in the objectives section of MP #1 on CCF, it is stated that "this effort will examine the technical basis...". The industry is currently considering developing a technical document to provide the details of our perspective on this subject to assist in the development of the NRC technical basis document. During the May 16, 2016 public meeting in response to the industry discussion of this document, the NRC staff responded positively and has included the topic on the agenda for the upcoming public meeting on CCF meeting scheduled for June 7, 2016.

**Additional Comments:**

- (7) Use of the Common Mode Failure (CMF) term: The first paragraph on page 10 of the draft IAP introduces the term Common Mode Failure (CMF). Introducing CMF adds further complication that may detract from focusing on resolution of the CCF issue. Therefore we suggest that the IAP limit the discussion to CCF.
- (8) SECY-09-0061: While we understand that reference to prior positions provides a historical picture, it may not provide a complete picture. We suggest that the reference to this SECY on page 10 be accompanied by a statement that industry comments provided on this SECY providing addition perspective should be considered as well.
- (9) CCF Schedule: The CCF schedule on page 10 of the IAP shows item 8 as "SECY paper to the Commission identifying proposed action to modify or affirm existing position", scheduled for completion in May 2017. We feel that this schedule does not reflect the sense of urgency required to address this significant barrier to moving forward with wide application of digital technology. We suggest working closely together to develop a schedule that provides a more expeditious resolution.
- (10) Other: Multiple other comments have been accumulated. Since the NRC staff will not be responding to comments, these will be held until subsequent workshops are conducted. The industry will conduct a more thorough review of the IAP and provide these comments at a later time.

NEI looks forward to continued engagement with the staff in support of the development and implementation of the IAP and to address additional improvement in the plan such that the stated objectives can be achieved. If there are any questions on this submittal, please contact Stephen Geier (202-739-8111, [seg@nei.org](mailto:seg@nei.org)) or me (202-739-8112, [sjr@nei.org](mailto:sjr@nei.org)).

Ms. Cindy Bladey

May 20, 2016

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Sincerely,

A handwritten signature in black ink, appearing to read "S. Jason Remer". The signature is fluid and cursive, with a long horizontal stroke at the end.

S. Jason Remer

c: Mr. Robert Caldwell, NRO/DEIA, NRC  
Mr. Todd Keene, NRR/DE, NRC  
Mr. John Lubinski, NRR/DE, NRC  
Mr. Brian Thomas, RES/DE, NRC  
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