

November 16, 2016

MEMORANDUM TO: Kevin Hsueh, Chief
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Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Senior Project Manager /RA/
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SUBJECT: SUMMARY OF SEPTEMBER 14, 2016, MEETING TO DISCUSS
COMMON CAUSE FAILURE

On September 14, 2016, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from the Nuclear Energy Institute (NEI). The meeting was the first of a series of biweekly interactions to discuss topics related to common cause failure (CCF). The focus of the meeting was discussions of NEI comments on Branch Technical Position (BTP) 7-19, "Guidance for Evaluation of Diversity and Defense-In-Depth in Digital Computer-Based Instrumentation and Control Systems Review Responsibilities," (Agencywide Documents Access and Management System (ADAMS) Accession No.: ML16014A253). Information related to the meeting, including presentations, BTP 7-19 comments, and the attendees list, can be found in the ADAMS package at accession No.: ML16238A353.

In its opening remarks, the NRC staff stated that it was still evaluating possible clarifications to BTP 7-19 based on previous remarks made by industry stakeholders. At this meeting, the NRC staff stated it would be interested in additional NEI and stakeholder comments described in the presentation material and seek clarification if necessary.

NEI stated in its opening remarks that holding these types of biweekly interactions with small groups was working well in other areas.

During the meeting the NRC staff and NEI discussed various BTP 7-19 issues and comments using the NEI presentation found in the ADAMS package referenced earlier. The NRC staff emphasized that any revision to BTP 7-19 in the short-run needed to be consistent with existing NRC policy as described in SECY 93-087, "Policy, Technical, and Licensing Issues Pertaining To Evolutionary And Advanced Light-Water Reactor (ALWR) Designs," (ADAMS Accession No.: ML003708021). However, the NRC staff noted that it was evaluating the current policy and determining whether any recommendations for changes should be made to the Commission.

During the presentation, NEI described the comments provided in the presentation material as well as reiterated the comments discussed at the August 22, 2016, meeting (ADAMS Accession No.: ML16223A160). One question asked during the meeting was about the overall industry view of BTP 7-19, and whether more clarity is needed. The industry stated that yes, more clarity is needed about what constitutes reasonable assurance, rather than 100% assurance, that a source of CCF is at the same level of likelihood as other sources of CCF accepted by the NRC.

Also, industry stated that BTP 7-19 is in some cases very clear (too prescriptive) in specifying acceptable defensive measures to address CCF, and more flexibility is needed. A second area of discussion was on the development of NEI's draft document NEI 16-XX. NEI noted that the topics being discussed at the meeting feed into NEI 16-XX which was still being developed. One point raised by the NRC staff was that it needed to understand the exact scope and content of NEI 16-XX.

The NRC staff emphasized that it would be useful for NEI to describe the document in greater detail at some point in the near-term. NEI responded that its presentation at the August 22, 2016, meeting did provide some insight into what was in the document. NEI agreed to identify a schedule for providing additional information (e.g., Table of Contents) on NEI 16-XX. This was added to the action item for this meeting.

As part of this meeting, the NRC staff reported that it would be determining what an appropriate path forward would be. The staff identified three options that would be presented to the Digital I&C Steering Committee for consideration. These were:

- 1) Continue with activities as described in the Integrated Action Plan to re-evaluate the 1993 NRC CCF policy, including development of a technical basis document for CCF.
- 2) Focus preparing clarifying guidance to address identified problems with BTP 7-19 such as being compatible with guidance being developed to enable licensees to use the Title 10 of the *Code of Federal Regulations*, Section 50.59 (10 CFR 50.59) process for making digital instrumentation and control improvements within the plant licensing design basis. Defer work on the policy technical basis document until later.
- 3) Put all other work on the CCF issue on hold and once NEI 16-XX is finalized, review it to determine whether the NRC staff could endorse NEI 16-XX to address evaluation of CCF.

The NRC staff reported that it is strongly considering Option 2 (provide guidance to address BTP 7-19). In part, the basis for recommending Option 2 discussed by the NRC staff at the meeting is that the NRC staff believes this alternative would help industry implement digital upgrades using the 10 CFR 50.59.

Industry, represented by NEI, stated that it preferred Option 2, but did not want to necessarily exclude Option 3. The reason for this preference was industry needed guidance that would allow plants to move forward with implementation of digital instrumentation and controls. NEI continued that industry would like more permanent guidance in the form of a Regulatory Guide and that a Regulatory Information Summary was less desirable.

Industry also stated that the NRC staff should use the information in NEI 16-XX while developing clarification guidance. To assist in this, NEI agreed to provide sections of NEI 16-XX as they become finalized.

As a result of these discussions several actions and parking-lot items were developed.

- 1) Place an item in the parking lot to discuss the scope of what industry thinks are the underlying safety issues and how they help define the scope of what needs to be done.
- 2) NRC staff and NEI will schedule a separate meeting to discuss "P" (preventative) design measures.
- 3) NEI will provide NRC staff with a schedule for providing pieces of NEI 16-XX.
- 4) NRC staff and NEI will discuss at a future interaction how NEI 16-XX would work with a possible future Regulatory Guide endorsing it.
- 5) NEI will provide an index that ties the bin categories in the NEI presentation made at the meeting to the specific comments on BTP 7-19.
- 6) NEI will provide a draft agenda for the next scheduled CCF meeting.
- 7) NEI and NRC will identify a list of topics that can be used to help develop agenda for future biweekly interactions.

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