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To: Mike Tschiltz (mdt@nei.org) (mdt@nei.org); ZACHARIAH, Thomas
Cc: Schwab, Alexander
Subject: Additional Issues for discussion at the work shop
Date: Friday, March 11, 2016 12:05:29 PM

Mike\Tom,

We have includes three more issues and four suggestions below. So, in total, there are only seven issues that requires deliberations at the workshop. At most, we may have one or two more. We will propose a detailed agenda on Monday to cover each of these issues during the workshop.

Have a great weekend!

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Issue #5: Changes to Base CDF

- To properly evaluate the risk of a performance deficiency, the risk analysts determine the increase above the base plant risk associated with the performance deficiency. The impact of the FLEX equipment needs to be addressed in the base case as well as the non-conforming case to get a proper assessment of the increase in risk. The White papers do not detail how the impact of the FLEX strategies not being available will be dealt with. (High-level guidance on this issue is provided in RIS 2008-15 in relation to B5b equipment.) This comment applies to equipment as well as HEPs.

Issue #6: Impact of performance issues of MS\FLEX

- The white papers do not detail how the impact of FLEX strategies not being available will be dealt with. Staff recognizes that this issue is treated in the development of Appendix O of IMC 609 and potential changes to IMC 612. When these documents are made available to the industry, Whitepaper should provide a clear explanation of compliance vs "PRA Credit" aspects of MS\FLEX to prevent potential future confusions among licensees and NRC staff on these issues.

Issue# 7

- The FLEX strategies are expected to be the last resort of options to be used to prevent core damage. In PRA, the plant must be brought to a safe and stable state to prevent core damage. The requirements for bringing the plant to a safe and stable state must be considered to assess FLEX equipment reliability.

SUGGESTIONS

- The equipment, procedural guidance and training for the specific FLEX strategies has a much higher uncertainty than the permanently installed equipment. There is little data on the failure probabilities or Human Error Probabilities associated with this equipment which will reduce the risk credit substantially if the full range of uncertainty is considered. The white paper can be enhanced by including a paragraph or two about initiatives that industry has undertaken, or plans to undertake to address this issue.

- NOEDs, MD 8.3, and SDPs require licensees' analysts to assess plant specific credit on various situations within relative short time periods. For example, during NOEDs, a licensee's risk analysts may have to assess credit from MS\FLEX within a matters of hours. NRC reviewers will be required to review those, also within hours. The licensee could review the FLEX equipment and determine if the FLEX equipment and strategy could be implemented to support specific functions and determine the potential risk benefit ahead of time if possible to prevent delays in the RIDM process which will occur if the crediting is attempted during the timeframe of the specific RIDM issue, i.e. NOED, MD8.3 or SDP issue.

- Ideally, we would have data and methods to estimate HEPs for situations for FRIDM. Industry and staff will benefit by a discussion on industry's planned or completed initiatives (e.g. EPRI work) that makes gradual progress in these areas.

- White papers suggest a 0.1 screening value for HEPs. Staff notes that there are some operator actions implemented from the control room (e.g., feed-and-bleed) that may be of the order of 0.1 or higher. We recommend providing this perspective in an appropriate place in the white paper. (For example white paper points to 0.1 as the nominal failure value for crediting FLEX. Staff's perception is 0.1 is a reasonable value when all scenario-specific conditions are met).