

From: [Ken Scarola](#)
To: [Govan, Tekia](#)
Subject: [External_Sender] Comments for NRC meeting with NEI
Date: Thursday, September 24, 2020 12:07:35 PM

Tekia,

When you were asking for public comments, I could not unmute my microphone in the Microsoft Team app; I still don't know what's wrong. Here are my comments:

Partial actuations are a valid concern – (1) sequencers interface with pumps, not valves, therefore pumps have unique blocks and the sequencer itself can have a defect (2) pumps, MOVs, solenoids all have different software blocks. Through control room simulations, I have seen that partial actuations challenge licensed operators to the point where mitigating actions are unacceptably delayed.

It should not be assumed that spurious operations are always BDBEs – BDBE only applies to systems with a robust design process. There are several non-safety systems that can challenge critical safety functions, and they may not all have a robust design process since that process is not regulated as for safety systems.

It should not be assumed that spurious operations only require analysis as initiators rather than concurrent with AOOs and PAs. There are many normally open valves in ESF systems. Spurious operations can close these valves defeating safety functions. Unless there is monitoring and alarms that is are not subject to the same defect, these safety functions would remain inoperable.

Segmentation alone is not sufficient to prevent CCFs among multiple segments due to a common design defect; sufficient diversity is also needed among the segments to prevent concurrent triggers.

The distinction in this BTP for risk significance is unnecessary and overly complicated. The only consideration of importance is whether a CCF is latent or self-announcing. A latent defect must be considered concurrent with AOOs and PAs. A self-announcing defect does not require consideration concurrent with AOOs and PAs.

Please pass these along to the BTP 7-19 team. Thank you.

Ken

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