CCNPP3COLA PEmails

From: Colaccino, Joseph
Sent: Wednesday, August 25, 2010 3:03 PM
To: DeMarshall, Joseph
Cc: Kowal, Mark; Arora, Surinder; Tesfaye, Getachew; Hearn, Peter; Harbuck, Craig; CCNPP3COL Resource; Jackson, Terry
Subject: RE: EPR Setpoint Methodology

Joe,

Appreciate your detailed summary.

For those who are not well versed on this issue, is the bottom line that if the TR applies to automatic protection instrument setpoints, there is no issue with TS?

Please advise…

Thanks, Joe.

From: DeMarshall, Joseph
Sent: Wednesday, August 25, 2010 2:55 PM
To: Jackson, Terry
Cc: Kowal, Mark; Colaccino, Joseph; Arora, Surinder; Tesfaye, Getachew; Hearn, Peter; Harbuck, Craig
Subject: EPR Setpoint Methodology
Importance: High

Terry,

Several weeks ago we had a meeting to discuss EPR PAM Instrumentation. After concluding our PAM discussion, we spoke briefly about EPR Instrumentation Setpoint Methodology with respect to the following:

> The Setpoint Control Program (SCP) Administrative TS requires that there be an NRC approved instrumentation setpoint methodology for all automatic protection setpoints related to variables having significant safety functions. This includes setpoints related to variables having significant safety functions on which a Safety Limit (SL) has been placed, and setpoints related to variables having significant safety functions but which do not protect Safety Limits in the U.S. EPR TS. This is necessary in order to ensure that the automatic protection instrumentation setpoints for all significant safety functions (SL and non-SL variables) specified in the Plant Specific Technical Specifications (PTS) will be subject to the requirements of the proposed SCP.

The U.S. EPR TS include automatic protection instrumentation setpoints for significant safety functions (Required by 10CFR 50.36) that are associated with non-Safety Limit variables. Up until yesterday's EPR DCWG Public Meeting (8/24/10), AREVA "firmly maintained" that (1) setpoint methodologies do not presently exist for those automatic protection system setpoints related to non-SL variables, and (2) the current NRC approved EPR setpoint methodology (ANP-10275P-A, "U.S. EPR Instrument Setpoint Methodology Topical Report") was only applicable to automatic protection instrumentation setpoints for significant safety functions directly related to SL variables.

In a public phone call with UniStar and AREVA on August 3, 2010, as well as in follow-up Draft RAI 260, Question 16-22, I communicated that NRC approved setpoint methodologies to be referenced in the SCP TS for automatic protection instrumentation setpoints not directly related to the protection of a SL, could be addressed by either (1) revising Topical Report ANP-10275P-A to include the methodologies, or (2) developing a dedicated report that would detail the methodologies. I also indicated that development of a dedicated

setpoint methodology report would be the responsibility of either AREVA or UniStar. During CTSB's weekly conference call with AREVA the very next day (August 4, 2010), AREVA requested clarification regarding the type of information to be included in the setpoint methodologies for non-SL variable protection setpoints (i.e., what would be the boundary of the "NRC approved methodology" – would it just be the methodology associated with the calculation of Channel Uncertainties for the instrument loop, or would an NRC approved basis for how the setpoint is determined be required). EPR TS significant safety functions related to non-SL variables include CVCS Isolation on Anti-Dilution Mitigation, EDG Start on Degraded Voltage, EDG Start on LOOP, and MCR HVAC Reconfiguration to Recirculation Mode on High Intake Activity functions. I subsequently discussed this matter with Dave Rahn, a Senior Electronics Engineer in NRR's Instrumentation and Controls Branch. Dave indicated that he felt it would be necessary to address certain modeling uncertainties/errors in order for the staff to adequately evaluate and ultimately approve the setpoint methodologies in question. One example of a modeling uncertainty that Dave alluded to was the need to account for the cabling voltage drops in the setpoint methodologies associated with the EDG Start on Degraded Voltage and EDG Start on LOOP functions. I communicated this information to AREVA on the August 11, 2010 weekly conference call.

Remarkably, after almost a year (and two follow-up RAIs), AREVA's position, as of yesterday's EPR DCWG Public Meeting (8/24), is that the existing NRC approved EPR Setpoint Methodology Topical Report, ANP-10275P-A, is now applicable to the automatic protection instrumentation setpoints for all significant safety functions (SL and non-SL variables alike). As a result, EPR Project Management will be scheduling a follow-up public meeting with AREVA to resolve the following issues which will require Chapter 7 I&C interaction:

1. Does the instrument setpoint methodology in NRC approved U.S. EPR Topical Report ANP-10275P-A, apply to the automatic protection instrumentation setpoints for significant safety functions related to non-SL variables, and

2. If ANP-10275P-A cannot be applied to the setpoints for significant safety functions related to non-SL variables, clarification regarding the type of information to be included in these setpoint methodologies will need to be provided (see above discussion).

As an added note, the meeting will also address the need to revise the SCP TS to accurately reflect the surveillance testing strategy proposed for the digital U.S. EPR Protection System, the basis of which is the performance of calibrations limited solely to those analog components subject to drift. This surveillance testing strategy was described by AREVA during public meetings conducted on April 27, 2010 and April 28, 2010. Revisions to the existing SCP TS are necessary since it is currently written to support surveillance testing for protection functions implemented via conventional analog bistables.

Let me know if you have any questions Terry. It would probably be best to meet and discuss the issues identified prior to the public meeting.

Thanks,

Joe

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From: Colaccino, Joseph

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