

NRR-PMDAPEm Resource

From: Paige, Jason
Sent: Friday, May 27, 2011 8:32 AM
To: Abbatiello, Tom
Cc: Abbott, Liz; Tiemann, Philip; jack.hoffman@fpl.com
Subject: Turkey Point EPU - Instrumentation and Controls (EICB) Request for Additional Information - Round 1.2 (Part 2)

Tom,

Below are requests for additional information (RAIs) regarding the Turkey Point Extended Power Uprate (EPU) license amendment request. On May 11, 2011, the Nuclear Regulatory Commission (NRC) staff and Florida Power & Light Company (FPL) discussed draft RAIs to gain a common understanding of the questions. During the call, the NRC and FPL was unable to reach an agreement for question EICB-1.2.1b regarding the methodology used to calculate the setpoint safety margin. It was concluded that an additional call would be needed. On May 26, 2011, the NRC and FPL held a follow-up call to discuss question EICB-1.2.1b. To help facilitate the call, FPL provided draft RAI responses via email. During the call, it was concluded that additional review from the NRC staff would need to be completed but FPL proposed that one possible path forward to address the question is to increase the safety margin. The NRC staff agreed that this would be an acceptable approach to addressing the question. The below RAIs reflect the questions discussed during the May 11 and 26, 2011, calls. These RAIs are categorized as Part 2 questions since they relate to the EPU portion of your application and are not follow-up RAIs to previous questions asked by the same EICB reviewer. FPL agreed upon providing its responses within 30 days of the date of this email. If you have any questions, feel free to contact me.

EICB-1.2.1 TSTF-493, Option A “with changes to setpoint values” requires the licensee to provide summary calculations for each type of setpoint being revised, including Limiting Trip Setpoint (LTSP), Nominal Trip Setpoint (NTSP), Allowable Value (AV), As-Found Tolerance (AFT), and As-Left Tolerance (ALT). It is not clear to the NRC staff how the following two setpoint calculations, as explained in your letter dated April 22, 2011, are performed.

- item 2 Overtemperature ΔT
 - item 3 Overpower ΔT
- a. Provide the analytical limit (AL) values with units, sample setpoint calculations and/or diagrams for the above two setpoints.
 - b. While calculating the setpoint safety margin, the licensee did not include the ALT value in the calculation. For example, item 1 “Power Range Neutron Flux – High” in Table 3-12:

AL = 115% RTP
NTS = 109% RTP
CSA = 5.52% RTP (4.6% Span with Span = 120% RTP)
ALT = 0.6% RTP (0.5% Span with Span = 120% RTP)

NTS + ALT + CSA = 109% RTP + 0.6% RTP + 5.52% RTP = 115.12% RTP, which is greater than AL (115% RTP). Therefore, the actual trip can result in the potential for the instrument channel to be operated beyond its analytical limit (AL) and there is no safety margin. Explain why the ALT is not included in your safety margin calculation for each proposed setpoint change.

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Recipients:

"Abbott, Liz" <Liz.Abbott@fpl.com>
Tracking Status: None
"Tiemann, Philip" <Philip.Tiemann@fpl.com>
Tracking Status: None
"jack.hoffman@fpl.com" <jack.hoffman@fpl.com>
Tracking Status: None
"Abbatiello, Tom" <Tom.Abbatiello@fpl.com>
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