

NRR-DMPSPEm Resource

From: Lingam, Siva
Sent: Tuesday, January 8, 2019 2:15 PM
To: Matthew.Cox@aps.com
Cc: Pascarelli, Robert; Waters, Michael; Salgado, Nancy; Stattel, Richard; Morton, Wendell; Thomas.N.Weber@aps.com; Michael.Dilorenzo@aps.com
Subject: Palo Verde 1, 2, and 3 - Official RAIs for LAR Associated with Response Time Testing of Pressure Transmitters (EPID L-2018-LLA-0161)

By letter dated May 25, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18145A303), Arizona Public Service Company (APS, the licensee) submitted a license amendment request (LAR) to revise the technical specification (TS) requirements regarding response time testing of pressure transmitters for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (PVNGS). In a letter dated October 12, 2018 (ADAMS Accession No. ML18285A575), APS confirmed that it is limiting the scope of the LAR to a specific replacement of a set of Rosemount pressure transmitters rather than seeking an approval of a general methodology. The PVNGS TSs currently authorize the elimination of response time testing for specific vendor transmitter models based on the previous U.S. Nuclear Regulatory Commission (NRC) approval. The existing transmitters that became obsolete are being replaced by newer model transmitters of similar design and construction.

We transmitted the draft requests for additional information (RAIs) from our Instrumentation and Controls Branch (EICB) for the subject LAR on December 19, 2018, and at your request, held a clarification call on January 8, 2019. Please find the following **official** RAIs for the subject LAR, and provide your responses by January 31, 2019, as mutually agreed during the clarification call. The following information is needed to verify compliance with Section 50.36(c) of Title 10 of the *Code of Federal Regulations* (10 CFR), General Design Criterion (GDC) 21, and GDC 23 of 10 CFR 50, and conformance with the implementing guidance in Regulatory Guide 1.118, and Standard review Plan Branch Technical Position 7-17.

EICB-1:

To support the NRC staff's review, the licensee provided NRC staff electronic audit access to documentation that supports the technical basis for the subject LAR for elimination of response time testing requirements. Two key documents examined during our electronic audit includes a vendor technical report and the licensee's evaluation report. The licensee portion of the evaluation in the portal appears to provide the most up-to-date analysis.

Please provide the latest version of the licensee's evaluation portion on the docket. The licensee also has the option of substituting this latest evaluation into the revised version of the LAR (i.e. replacing the original evaluation in the LAR) in lieu of docketing a separate file. The vendor technical report does not need to be submitted. This information is needed to form the docketed basis of NRC's safety evaluation of the LAR.

EICB-2:

Section 2.1.2 of the licensee's evaluation report states, in part, that the 3051N series has self-diagnostics but does not provide any further detail on what those self-diagnostics are. Section 2.2.2 states, in part, that a self-diagnostic routine monitors the processing function of the 3051N series. The failure modes and effects analysis also states that microprocessor failures would be detected by self-diagnostics. In concluding the study, the licensee states, in part, that failure modes that would impact sensor response times will be detected through alternate methods. It appears that self-diagnostic features have a critical role in the detection of potential new failures for the 3051 series transmitters, which is credited as supporting the overall technical justification for elimination of response time testing. Please describe the specific set of self-diagnostic features

of the 3051 series of transmitters (and 3051N model) that can detect or protect against failures of transmitters and affect response time.

EICB-3:

Section 2.2.2 of the licensee's evaluation report states, in part, that "non-specific failures" in the processor hardware or software routines that delay the processing function could theoretically increase time without an apparent gross failure of the device. This would appear to mean that non-self announcing failures could impact response time by causing delays in the processing function of the electronics module. It is not clear whether the licensee is referring to issues such as errors in code or component failure within the electronics module. Please describe the non-specific failures that could affect response time.

EICB-4:

Please revise the proposed TSs to remove reference to approved methodological approach, and reflect only elimination of response times for the specific equipment justified in this LAR.

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