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April 08, 2025

U.S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Subject: GE Over/Under Voltage time delay relay PN: 12IAV69A1A

Dear Sir or Madam:
This letter serves as an official report in accordance with 10CFR Part 21.21 on a failure of a Curtiss Wright (CW) supplied GE Time Delay Relay PN: 12IAV69A1A, Mfg. SN: AIAV111700032, CW Tag # CJ678001, CW SN: 03.

On 2/13/25 Curtiss Wright (CW) received from Constellation the failed, CW supplied, GE Time Delay Relay PN: 12IAV69A1A, Mfg. SN: AIAV111700032, CW Tag # CJ678001, CW SN:03 for CW to begin its evaluation of the failure.

On 12/10/24 Constellation notified Curtiss-Wright about the failure of a relay provided under CW project CJ6780 (Tag number CJ678001 S/N 03) which was seismically qualified in the EPRI/SQURTS report S1333.0 dated 12/19/2013. The Relay was dedicated by CW and shipped 4/13/2017 to Constellation.

Constellation stated the relay failed a planned maintenance test. The induction disc was unable to complete the full travel towards the UV trip due to obstruction from the stationary contact which slipped down along the shaft onto which it was mounted and made contact on the induction disc. Constellation stated this relay was in a relatively static state as it had not seen an undervoltage or overvoltage condition in four years. The failed unit was sent by Constellation for a failure analysis to Constellation Power Labs facility. Constellation Power Labs report dated 11/5/2024 confirmed the failure.

Further research discovered that LaSalle had a similar failure in 2002 (Report provided to CW from Constellation on 1/16/25) but there haven't been any other reported failures in the nuclear industry until this one. CW did not provide this relay.

On 2/6/2025 CW issued a Return Authorization Form per Constellations request and the relay was received by CW on 2/13/2025

On 4/7/25, Revision 2 was generated (attached) of the failure analysis that was written by the Constellation Power Labs Facility which stated that the induction disc was unable to complete the full travel towards the UV trip due to the obstruction from the stationary contact which had slipped down along the shaft onto which it was mounted and made contact on the induction disc. The bracket, even when fully tightened could not hold its position on the shaft. The root cause of the failure could not be determined.

Because CW cannot establish a root cause, the following checks are recommended:

1) CW has modified the dedication plan to apply mild vertical force to assure that the clamp is secure as part of the dedication process.
2) End user should provide a similar mechanical test to be sure that the clamp remains secure during periodic surveillance and maintenance activities.

These actions should preclude a possible recurrence of this failure mechanism.

Sincerely:

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