



January 28, 1983
L-83-47

Mr. James P. O'Reilly
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: St. Lucie Unit 2
Docket 50-389 10 CFR 50.55(e), 82-025
Ring Tongue Connectors

On November 10, 1982, Florida Power and Light Company (FPL) notified the Region II Office of Inspection and Enforcement in accordance with the requirements of 10 CFR 50.55(e) of a potential deficiency regarding the insulation of the Conax ring tongue connectors. Attached please find our final resolution of this issue.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Robert E. Uhrig", is written over a horizontal line.

Robert E. Uhrig
Vice President
Advanced Systems & Technology

Attachment

cc: Director of Enforcement and Inspection
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

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I. Summary

A potential deficiency was identified in the Conax supplied ring tongue connector assemblies at electrical penetration terminals, as documented in the Nonconformance Report No. 3379E, dated 3/5/82. The insulation installed on the assemblies, which was intended to cover the ring tongue connector barrels, also partially extended onto the ring tongue connector surface at the penetrations. The vendor, Conax, has conducted a test in which the results indicate that the ring tongue connectors will function properly if the terminal block nuts are torqued to a predetermined level. As a result, FPL decided to retorque all Class IE and certain non-IE vendor terminals on the penetrations. This effort has been completed.

FPL notified the NRC of this potential deficiency existing at the St. Lucie Unit 2 site as potentially reportable under 10 CFR 50.55(e) on November 10, 1982. This final report is submitted to advise the NRC of the description and corrective action that was taken.

II. Description

Heat Shrink Insulation Tubing which was intended to cover the ring tongue lug barrel only, was found in three penetrations to extend over the ring tongue face. This could reduce the surface contact area and impair the quality of the electrical connections.

The electrical penetration vendor, Conax Corporation, agreed to perform testing to determine contact integrity. The test results indicated that the above condition would not impair the safety related function of any equipment on St. Lucie 2. This test was performed and documented in Conax report IPS-910 dated June 18, 1982. This report was considered to be indicative of field conditions at St. Lucie 2, provided Conax could supply documentation that the ring tongue connector retaining nuts in the field were tightened to the same level as those in the Conax test. Conax could not provide such documentation. In order to make a positive correlation between the Conax test report and field conditions, it was decided to retorque all Class IE and certain non-IE terminal block retaining nuts.

III. Corrective Action

FPL advised Construction to retorque all safety terminal block retaining nuts, as well as certain non-safety block retaining nuts.

This retorquing will validate Conax's test report for St. Lucie Unit 2, and thus alleviate any safety concerns. The retorquing effort has been completed.

IV. Safety Implications

There have been no reported failures or malfunctions as a result of this potential deficiency. There was concern, however, that over longer periods of time, the condition described above could result in a degraded electrical connection that could affect operation of Class IE safety related equipment. To alleviate this concern, corrective action as indicated above has been carried out. Due to the potential safety implications, we have determined that this item is reportable under 10 CFR 50.55(e).

V. Conclusion

Corrective action as indicated in Section III of this report has been undertaken. This closes out this item for St. Lucie Unit 2 with regards to the NRC's reporting requirements.