



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: RII:JPO
Docket No. 50-389, 10 CFR 50.55(e), 82-028
Defective Heat Trace Cabling

Dear Mr. O'Reilly:

On December 21, 1982, Florida Power & Light notified NRC Region II of a potential 10 CFR 50.55(e) condition existing at St. Lucie Unit #2 Site involving defective heat trace cabling.

Pursuant to the requirements of 10 CFR 50.55(e), a final report is attached.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/JO/cab

Attachment

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I. Summary

The heat tracing cable vendor for St Lucie Unit 2, Nelson Electric, provided the NRC with written notification that discontinuities were found in the brazed sleeves of Mineral Insulation heating cable assemblies supplied at St Lucie Unit 2.

Per the requirements of 10CFR50.55(e) this concern was evaluated and has been deemed reportable. This final report is being submitted to provide NRC with a description of the deficiency and the corrective actions which have been implemented.

II. Description

G.S. Nelson Electric reported via letter to NRC dated December 1, 1983, that discontinuities were found in the brazed sleeves of MI heating cable assemblies. These discontinuities are susceptible to opening during the thermal cycling of these cables and could permit moisture to penetrate during shutdown of the equipment. Presence of moisture will result in malfunction of the heater cable.

The Nelson heating cables are being used in the Chemical and Volume Control System (CVCS) piping. Upon performance of dye penetrant testing, 51 of 58 sleeves were found defective.

III. Corrective Action

All heat trace sleeves of the affected G.S. Nelson Electric batch will be subjected to a 100% non-destructive dye penetrant examination. Acceptance will be based on zero defects. Any assembly found to have discontinuity in the brazed sleeve will either be replaced or repaired per applicable procedure. The piping insulation will be removed and replaced as required.

IV. Safety Implications

We have evaluated this concern and determined that a deficiency in assembly construction exists which if left uncorrected could affect plant safety. Should a heating cable failure occur, it could cause the borated water to solidify and prevent the CVCS system from functioning properly. Since the CVCS is used to bring the plant to shutdown, the existence of the defective heating cable assemblies represented a potential safety hazard.

Corrective action as identified above has been undertaken.

V. Conclusion

With the above mentioned corrective actions, this item is resolved and closed regarding 10 CFR 50.55(e) reporting requirements.