

NRC REGION II
ATLANTA, GEORGIA



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April 18, 1983
L-83-245

Mr. J. P. O'Reilly, Director Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

RE: St. Lucie Unit 2
Docket No. 50-389/50.55(e) - 83-008
DEFECTIVE WELD ON SI TEST PIPING

On March 18, 1983, Florida Power & Light Company notified NRC, Region II, (J. C. Orlowski and K. Landis, via telecon) of a potential 10 CFR 50.55(e) condition existing at the site involving a defective weld on safety injection test piping. Pursuant to the requirements of 10 CFR 50.55(e), a final report is attached.

Very truly yours,

J. A. De Mentry
Robert E. Uhrig
Vice President
Advanced Systems and Technology

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I. Summary

During Hot Operational Testing a weld was found to be defective on vent piping on the Safety Injection System (SIS). This weld had previously passed inspection. The weld (SI-234-901) and associated piping materials were removed, replaced and subsequently tested to the design requirements.

II. Description

A weld was found to be defective during hot-ops testing. This weld was located on a 3/4" vent piping on the SIS and was supported by a hanger. The subject weld passed full hydrostatic testing and a liquid penetrant examination. The failure of this weld has been attributed to the lack of contact area on the support hanger. This lack of contact caused an unsynchronized vibration of the vent piping thereby weakening the weld to the point that it failed.

III. Corrective Action

The weld, associated piping and fitting have been replaced. Also the hanger has been re-installed to required specifications with the proper contact surface area.

Upon repair of the subject weld a hydrostatic test was performed at 2330 psig and the median temperature of 85°F. This test assured system integrity so the Hot Operational testing could proceed but did not satisfy hydrostatic test requirements. Therefore in order to satisfy hydrostatic test requirements, valve V-3624 was disassembled, a hydrostatic test plug inserted into the opening in line SI-148 and a hydrostatic test was performed.

All other similar arrangements have been re-examined for correct hanger installations.

IV. Safety Implications

We have evaluated this concern and determined that it is a deficiency in construction, which if left uncorrected could have resulted in the potential loss of the required number of Safety Injection Tanks. Therefore, we deem this concern to be reportable under 10 CFR 50.55(e).

V. Conclusion

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