

NRC REGION II  
ATLANTA, GEORGIA



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April 18, 1983  
L-83-242

Mr. James 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) - 83-004  
Ground Fault in Reactor Protection System

On March 10, 1983, Florida Power & Light Company notified NRC Region II of a potential 10 CFR 50.55(e) condition existing at the site involving ground fault in the reactor protection system.

The RPS/ESFS instrumentation loops function as ungrounded floating systems. However Foxboro, the supplier of the instrumentation cabinets, has installed a ground cable in these cabinets, which ties all shields to the power supply common. The other end of the shields were subsequently tied to the instrument ground. As a result, the RPS/ESFS developed a ground fault in the measurement loop.

Our safety evaluation has revealed that there will be no adverse effect on the RPS or ESFS operation if this occurrence were left uncorrected and the Foxboro cables left in place. Assuming a Design Basis Accident coincident with a single failure (which could be another ground in the RPS instrumentation loop), and considering that another measurement channel could be in bypass condition, there would still be a minimum of two other measurement channels left available for actuation. Therefore, the RPS and ESFS will perform their intended functions of mitigating an accident and keep the plant in a safe condition. Yet, to maintain the full redundancy of the system logic the Foxboro cables between the power supply common and the shield have been removed.

An evaluation of this item for reportability under 10 CFR 50.55(e) and Part 21 has been performed. We deem this item to be non-reportable under both parts.

With the above mentioned corrective action, this response closes out this item with respect to the reporting requirements of 10 CFR 50.55(e). All pertinent documentaion will be maintained at the site.

Very truly yours,

*Robert E. Uhrig*  
Robert E. Uhrig  
Vice President  
Advanced Systems and Technology

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