



Florida Power & Light Company, 6351 S. Ocean Drive, Jensen Beach, FL 34957

June 27, 2000

L-2000-142
10 CFR 50.4
10 CFR 50.36

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Re: St. Lucie Unit 1
Docket No. 50-335
Technical Specification Special Report
Date of Event: May 29, 2000
Failure of Channel A Reactor Vessel Level Monitoring System (RVLMS)

The attached Special Report is being submitted pursuant to the requirements of St. Lucie Unit 1 Technical Specification 3.3.3.8, Action 4, and Technical Specification 6.9.2. This report provides notification that one channel of the Reactor Vessel Level Monitoring System (RVLMS) was out of service for greater than seven days. The channel A RVLMS was subsequently restored to service. This report includes the cause and corrective actions used to restore the inoperative channel.

Should there be any questions on this information, please contact us.

Very truly yours,

Rajiv S. Kundalkar
Vice President
St. Lucie Plant

RSK/EJW/KWF

Attachment

cc: Luis A. Reyes, Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, St. Lucie Plant

SPECIAL REPORT

I. TITLE

Failure of the Unit 1 Channel A Reactor Vessel Level Monitoring System (RVLMS) probe.

II. EVENT DESCRIPTION

On May 29, 2000, St. Lucie Unit 1 was in Mode 1 at 100% power. Each RVLMS channel consists of a probe that uses eight heated junction thermocouple (HJTC) sensors and reactor vessel level is calculated from the HJTC temperature outputs at the eight sensor levels in the reactor vessel. Technical Specification 3.3.3.8 requires a minimum four out of the eight sensors per channel operable for Modes 1, 2, and 3. Four sensors were out of service, when the fifth HJTC sensor failed at 1900 hours.

III. CAUSE OF THE EVENT

The cause of the failed HJTC sensors was determined to be induced noise on the signal cables. Troubleshooting efforts determined that the noise was eliminated by lifting the HJTC shield to ground connection in penetration A-10. It appeared that the shield ground connection had been previously lifted, but not properly insulated, resulting in intermittent contact with ground. This provided a source of noise and interference being experienced on multiple channels.

IV. ACTIONS TAKEN

The signal cable shield design associated with the channel A RVLMS was modified to provide the appropriate noise immunity necessary to minimize the effects of coupled noise on the HJTCs signals. The improved noise immunity has resulted in system performing without spurious/nuisance alarms.

V. SCHEDULE FOR RESTORING SYSTEM

On June 15, 2000, the channel A RVLMS was declared back in service. Three of the five failed HJTC sensors were restored to operable status, leaving six operable HJTC sensors. Because the channel A RVLMS has at least four operable HJTC sensors, the channel now complies with the limiting condition for operation (LCO) for Technical Specification 3.3.3.8.