Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

FPL

December 16, 2008

L-2008-261
10 CFR 50.4
10 CFR 50.36

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Re: St. Lucie Unit 1
Docket No. 50-335
Date of Event: December 2, 2008
Technical Specification Special Report
Inoperable Containment Sump Wide Range Level Channel B

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 channel "B" of the containment sump wide range level instrument is inoperable.

As described in the attached special report, repair of the inoperable containment sump wide range level instrument could not be performed at power, and the instrument will be repaired at the next outage of sufficient duration, but no longer than the next refueling outage.

Please contact us if there are any questions on this information.

Sincerely,

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/CAA

Attachment

IE22
NRR

1. TITLE

St. Lucie Unit 1 Inoperable Containment Sump Wide Range Level Channel B – LIS-07-13B

2. EVENT DESCRIPTION

On December 2, 2008, with St. Lucie Unit 1 in Mode 1, the channel B of containment sump wide range level signal trended slightly higher with this channel being placed out of service. St. Lucie Unit 1 Technical Specification (TS) 3.3.3.8, Table 3.3-11, ACTION 4 was entered, which states:

ACTION 4 - With the number of OPERABLE Channels one less than the Total Number of Channels shown in the Table 3.3-11, either restore the inoperable channel to OPERABLE status within 7 days if repairs are feasible without shutting down or prepare and submit a Special Report to the Commission pursuant to the specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring OPERABLE status.

A containment sump wide range level channel utilizes three level probes. St. Lucie Unit 1 TS 4.3.3.8 requires each channel be demonstrated operable by performing both a channel check and a channel calibration.

3. CAUSE OF THE EVENT

Plant engineers and maintenance personnel investigated the channel B level signal and concluded that all portions of the instrument loop outside of containment is working correctly. The instrument loop malfunction is located inside containment, information is indicative of a possible sticking reed switch on the sensor in the sump. Elevated radiation levels at the instrument location area when operating preclude any further troubleshooting, and the precise problem will be located when access to containment is achieved.

4. ACTIONS TAKEN

Work order 38026756-01 was written for LIS-07-13B which documented a reading of +1.9 ft. The normal reading is -1.5 ft., 1-OSP-100.17 requires that a normal maximum reading of +0.5 ft. If this reading is out of the normal band then Operations is required to declare the channel inoperable.

The input leads to the transmitter were lifted to check the resistance readings from the field. This revealed that the input resistance had dropped on the B-C leg from a normal

reading (-1.0 ft.) of 331 ohms to 257 ohms. This is consistent with the issue that was experienced in 2007, reference work order 37016268-01 and in 2004, 34015567-01.

This indication is indicative of a problem at the instrument stalks in the containment sump. This information was passed on to the Engineering team and they concurred that the failure was in containment. The fact that the resistance decreased is indicative of a possible sticking reed switch on the sensor in the sump.

Recommendation is to troubleshoot the faulty sensor stalk during the next available shutdown and to replace that sensor assembly.

5. SCHEDULE FOR RESTORING SYSTEM

The Unit 1 containment sump wide range level channel B will be returned to service at the next outage of sufficient duration, and no later than the end of the next refueling outage (SL 1-23).