October 23, 2014

L-2014-323
10 CFR 2.201

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

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Response to Preliminary White Finding in NRC Inspection Report
05000335/2014009 and 05000389/2014009; EA-14-131

Reference:

1. NRC Letter from Joel T. Munday to Mano Nazar dated September 24, 2014, "St. Lucie Plant – NRC Inspection Report 05000335/2014009 and 05000389/2014009; Preliminary White Finding and Apparent Violations." ADAMS accession number ML14267A337.

On September 24, 2014, Florida Power & Light (FPL) received the NRC Inspection Report (Reference 1) describing a preliminary white finding associated with a water intrusion event at the St. Lucie Plant on January 9, 2014. Reference 1 provided FPL an option of responding to the preliminary white finding within 30 days. This letter provides FPL's response.

FPL concurs with the categorization and basis for the finding. FPL recognizes that there were previous opportunities to identify the degraded flood protection features and fully comprehends the significance associated with the actual rain event and other postulated precipitation events. Follow-up inspections were performed and all discrepancies were promptly addressed. Additionally, a root cause evaluation (RCE) was performed that identified opportunities for additional corrective actions.

As discussed in Reference 1, the degraded conduits have been sealed and the condition no longer exists. The causal factors associated with this event are known and corrective actions were established to prevent recurrence. FPL continues to pursue completion of corrective actions to improve flood mitigation margin. The attachment to this letter summarizes the important insights gained from our significance determination review and RCE.

Please contact Eric Katzman, St. Lucie Licensing Manager, at (772) 467-7734 if there are any questions regarding this response.

Sincerely,

Joseph Jensen
Site Vice President
St. Lucie Nuclear Plant

JJ/rcs

Attachment

cc: NRC Region II Administrator
St. Lucie Plant NRC Senior Resident Inspector

IE01
NRR

L-2014-323 Attachment

30-Day Written Response to Preliminary White Finding

Safety Significance Determination

The Internal Events Model was used to evaluate the risk associated with the potential loss of the high pressure safety injection (HSPI) pumps, the low pressure safety injection (LPSI) pumps and the charging pumps as a result of postulated flooding of the emergency core cooling system rooms. Based on FPL's analysis, the calculated overall significance was identified as low to moderate, consistent with the NRC assessment.

RCE Insights

The RCE identified that a legacy plant modification installed conduit penetrations in the reactor auxiliary building (RAB) below the flood level without flood barrier seals. The modification did not follow the requirements of ANSI N45.2.11, Requirements and Guidance for a Quality Assurance Program for the design of nuclear power plants Systems, Structures and Components (SSCs) that affect the final design of the plant. This created a latent design weakness that went undetected until the rain event of January 9, 2014.

Additionally, the station had several opportunities to identify the open penetrations but did not identify and correct the missing barriers. Previous inspections did identify the degraded conduits, however; the evaluations focused on the condition of the non-safety related cabling in the degraded conduits and did not consider flooding hazards.

Corrective Actions Completed

- Implemented permanent flood seal design and repair for the subject conduits,
- Revised flood response procedures to improve mitigation of internal and external flooding,
- Re-performed the Fukushima walkdowns incorporating lessons learned from the root cause evaluation and submitted Revision 1 to the Fukushima walkdown report, FPL060-PR-001, per L-2014-297 on 9/26/14, and
- Restored and improved internal and external flood barrier integrity identified as part of the extensive extent of condition review for Unit 1 and 2.

Corrective Actions in Progress:

St. Lucie is in the process of completing several additional corrective actions. These include:

- Revising the St. Lucie procedure for plant barrier control to strengthen the focus on external flooding,
- Updating plant drawings to identify all the flood barrier seals,
- Developing preventative maintenance for flood seals and other equipment important for flood mitigation, and
- Performing extensive upgrades to the site storm drainage system and purchasing of additional high capacity water removal equipment.