



L- 2015-291 10 CFR 2.202

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

RE: St. Lucie Unit 2 Docket 50-389

Florida Power & Light/St. Lucie Unit 2 Final Compliance with EA-12-051 Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

#### References:

- 1. U.S. Nuclear Regulatory Commission, Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Effective Immediately), dated March 12, 2012, Accession No. ML12056A044.
- 2. U.S. Nuclear Regulatory Commission, Interim Staff Guidance JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation, Revision 0, dated August 29, 2012, Accession No. ML12221A339.
- 3. NEI 12-02, Revision 1, Industry Guidance for Compliance with NRC Order EA-12-051, To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated August, 2012, Accession No. ML12240A307.
- 4. FPL Letter L-2012-384, dated October 25, 2012, Florida Power & Light (FPL)'s Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Accession No. ML12300A420.
- 5. FPL Letter L-2013-079, dated February 28, 2013, Florida Power & Light/St. Lucie's Overall Integrated Plan in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Accession No. ML13063A026.
- 6. NRC Letter to Florida Power & Light St. Lucie Nuclear Plant, Units 1 and 2 Request for Additional Information Regarding Overall Integrated Plan for Reliable SFP Instrumentation (Order No. EA-12-051) (TAC Nos. MF00090 and MF0091), dated July 16, 2013, Accession Number ML13196A079.
- 7. FPL Letter L-2013-223, dated July 26, 2013, Florida Power & Light/St. Lucie's Response to Request for Additional Information Regarding Overall Integrated Plan in Response to Order EA-12-051, "Reliable Spent Fuel Pool Instrumentation," Accession No. ML13219A838.
- 8. FPL Letter L-2013-253, dated August 27, 2013, Florida Power & Light/St. Lucie's first Six-Month Status Report to the Overall Integrated plan in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to reliable Spent fuel Pool Instrumentation (Order Number EA-12-051), Accession No.ML13242A006.
- 9. NRC Letter to Florida Power & Light St. Lucie Nuclear Plant, Units 1 and 2 Interim Staff Evaluation and Request for Additional Information Regarding the Overall Integrated Plan

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- for Implementation of Order EA-12-051, Reliable Spent Fuel Pool Instrumentation (TAC Nos. MF0990 and MF0991) dated November 19, 2013, Accession No. ML13274A473.
- FPL Letter L-2013-061, dated February 28, 2014, Florida Power & Light/St. Lucie's Second Six-Month Status Report to the Overall Integrated plan in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to reliable Spent fuel Pool Instrumentation (Order Number EA-12-051), Accession No. 14064A193.
- 11. FPL Letter L-2014-275 dated August 27, 2014, Florida Power & Light/St. Lucie Third Six Month Status Report in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Accession No. ML14253A185.
- 12. FPL Letter L-2015-054 dated February 23, 2015, Florida Power & Light/St. Lucie Fourth Six Month Status Report in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Accession No. ML15071A265.
- 13. FPL Letter L-2015-115 dated May 12, 2015, Florida Power & Light/St. Lucie Unit 1 Final Compliance with EA-12-051 Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, Accession No. ML15140A393.
- 14. FPL Letter L-2015-214 dated August 25, 2015, Florida Power & Light/St. Lucie Fifth Six Month Status Report in Response to March 12, 2012 Commission Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Accession No. ML15246A143.
- 15. NRC letter to All Operating Reactor Licensees and Holders of Construction Permits, "Nuclear Regulatory Commission Audits of Licensee Responses to Mitigation Strategies Order EA-12-049," dated August 28, 2013, Accession No. ML13234A503.
- 16. NRC Letter dated February 27, 2015, St. Lucie Plant, Units 1 and 2, Report for the Onsite Audit Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Instrumentation Related to Orders EA-12-049 and EA-12-051 (TAC Nos. MF0984, MF0985, MF0990, and MF0991), Accession No. ML15035A670.

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an order (Reference 1) to FPL. Reference 1 was immediately effective and directs FPL to install reliable spent fuel pool level instrumentation. Specific requirements are outlined in Attachment 2 of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the FPL initial status report regarding mitigation strategies. Reference 5 provided the FPL Overall Integrated Plan.

Reference 1 requires submission of a status report at six month intervals following submittal of the Overall Integrated Plan. Reference 3 provides direction regarding the content of the status reports. The first, second, third, fourth, and fifth six month status reports were submitted in Reference 8, 10, 11, 12, and 14.

Condition C.3 of the Order required all Licensees to report to the Commission when full compliance with the requirements of the order is achieved. This letter provides notification that FPL has completed the requirements of EA-12-051 and is in full compliance with the Order for St. Lucie Unit 2. The attachment to this letter provides the summary of how the compliance requirements were met.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact Mr. Eric Katzman, Licensing Manager, at (772) 467-7734.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 10, 2015.

Mustopher R. Costanzo

Respectfully submitted,

Christopher R. Costanzo

Site Vice President

St. Lucie Plant

CRC/KWF

cc:

USNRC Regional Administrator, Region II

USNRC Senior Resident Inspector, St. Lucie Units 1 and 2

#### Attachment:

Florida Power & Light/St. Lucie Unit 2 Final Compliance Summary with EA-12-051 Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation

# FLORIDA POWER & LIGHT/ST. LUCIE UNIT 2

Final Compliance Summary with EA-12-051 Order

Modifying Licenses with Regard to Reliable

Spent Fuel Pool Instrumentation

# St. Lucie Plant, Unit 2 Order EA-12-051 Compliance Requirements Summary

### **BACKGROUND**

The St. Lucie Plant developed an Overall Integrated Plan (OIP) (Reference 5), documenting how the requirements for reliable spent fuel pool level instrumentation (SFPLI) would be achieved, in response to Order EA-12-051, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," (Reference 1). The St. Lucie Plant Units 1 and 2 OIP was submitted to the NRC on February 28, 2013 and was supplemented by Six-Month Status Reports (References 6, 7, 10, 11, and 15), in accordance with Order EA-12-051 (the Order). By letter dated November 19, 2013, the NRC provided its Interim Staff Evaluation and Request for Additional Information Regarding Order EA-12-051 (Reference 12).

Each St. Lucie unit is provided with a dedicated Spent Fuel Pool (SFP). St. Lucie Unit 2 had two independent SFP level measurement channels, supplied and qualified by Westinghouse, installed in response to Reference 1.

On October 25, 2015, St. Lucie Unit 2 achieved full compliance with Order EA-12-051 and commenced reactor startup. Completion of the elements identified below for St. Lucie Unit 2, as well as References 5, 6, 7, 10, 11, and 15 constitutes full compliance with Order EA-12-051 for St. Lucie Unit 2.

The design features for the Unit 2 spent fuel pool level instrumentation are identified in Engineering Change EC 280520. This document has previously been provided to the NRC and is available for their review.

#### **COMPLIANCE SUMMARY**

### NRC RAI, ISE and Audit Items - Status: Complete

During the audit process (Reference 13), Florida Power & Light's (FPL) provided responses for the following items for St. Lucie Unit 2:

- Request for Additional Information (RAI)
- Interim Staff Evaluation (ISE) Open Items
- ISE Confirmatory Items
- Licensee Identified Open Items
- Audit Questions
- Safety Evaluation Review Items

The "St. Lucie Plant, Units 1 and 2 - Report for the Onsite Audit Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Orders EA-12-049

and EA-12-051," (Reference 14) delineated the items reviewed during the St. Lucie onsite audit. Reference 14 identified no open audit item(s) related to SFPLI within the Safety Evaluation.

As requested by the NRC, FPL responses, or references to the source document for the responses, to the SFPLI RAIs were provided in the St. Lucie Unit 1 SFP Order final compliance letter (Reference 16). It is FPL's position that no further actions related to the SFPLI RAIs are required.

### Milestone Schedule Items - Status: Complete

St. Lucie Unit 2 Milestone	Completion Status
Submit OIP	Complete
Commence Engineering and Design	Complete
Complete Engineering and Design	Complete
Complete Procurement of SFP Instruments	Complete
Commence Installation of SFP Instruments	Complete
Level Measurement System Functional	Complete

### Identification of Levels of Required Monitoring – Status: Complete

St. Lucie Plant has identified the three required levels for monitoring spent fuel pool (SFP) level in compliance with Order EA-12-051. These levels have been integrated into the site processes for monitoring level during events and responding to loss of SFP inventory.

## **Instrument Designed Features - Status: Complete**

The design of the SFP level measurement instrumentation system installed at St. Lucie Unit 2 complies with the requirements specified in Order EA-12-051 and described in NEI 12-02 "Industry Guidance for Compliance with NRC Order EA-12-051." The instrumentation system has been installed in accordance with the station design control process.

The instruments have been arranged to provide reasonable protection against missiles. The instruments have been mounted to retain design configuration during and following the maximum expected ground motion. The instruments will be reliable during expected environmental and radiological conditions when the SFP is at saturation for extended periods.

The instruments are independent of each other and have separate and diverse power supplies. The instruments will maintain their designed accuracy following a power interruption and are designed to allow for routine testing and calibration. The instrument display is readily accessible during postulated events and allows for SFP level information to be promptly available to decision makers.

# **Program Features - Status: Complete**

Training of personnel performing maintenance functions including calibration and surveillance associated with the SFP level instrument channels at St. Lucie Unit 2 has been completed in accordance with an accepted training process as recommended in NEI 12-02, Section 4.1. Operating and maintenance procedures for the St. Lucie Unit 2 SFP level instrument channels have been developed, and integrated with existing procedures. These procedures have been verified and are available for use in accordance with the site procedure control program. Site processes have been established to ensure the instruments are maintained at their design accuracy.

#### REFERENCES

The following references support the St. Lucie Unit 2 SFPLI Compliance Summary:

- 1. U.S. Nuclear Regulatory Commission, Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Effective Immediately), dated March 12, 2012, Accession No. ML12056A044.
- 2. U.S. Nuclear Regulatory Commission, Interim Staff Guidance JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation, Revision 0, dated August 29, 2012, Accession No. ML12221A339.
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- 12. NRC Letter to Florida Power & Light St. Lucie Nuclear Plant, Units 1 and 2 Interim Staff Evaluation and Request for Additional Information Regarding the Overall Integrated Plan for Implementation of Order EA-12-051, Reliable Spent Fuel Pool Instrumentation (TAC Nos. MF0990 and MF0991) dated November 19, 2013, Accession No. ML13274A473.
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- 16. FPL Letter L-2015-115, dated May 12, 2015, Florida Power & Light/St. Lucie Unit 1 Final Compliance with EA-12-051 Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, Accession No. ML15140A393.