



February 28, 2014

L- 2014-061  
10 CFR 2.202

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

St. Lucie Units 1 and 2  
Dockets 50-335 and 50-389

Florida Power & Light/St. Lucie Second 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)

- 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 and 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 and 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 and Light St. Lucie Nuclear Plant, Units 1 and 2 - Interim Staff Evaluation and Request for Additional Information Regarding

ADD  
MLR

Spent Fuel Pool Instrumentation (TAC Nos. MF0990 and MF0991) dated November 19, 2013, Accession No. ML13274A473.

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 purpose of this letter is to provide the second six month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. Enclosure provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including changes to the compliance method, schedule, or need for relief and the basis, if any.

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 February 28, 2014.

Respectfully submitted

A handwritten signature in black ink, appearing to be 'Jensen', written over a large, stylized scribble or flourish.

Joseph Jensen  
Site Vice President  
St. Lucie Plant

Enclosure:

Second 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)

**ENCLOSURE**

**FLORIDA POWER & LIGHT  
ST. LUCIE NUCLEAR POWER PLANT**

**SECOND 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)**

**1. Introduction**

Florida Power & Light St. Lucie Plant Units 1 and 2 developed an Overall Integrated Plan (Reference 1) documenting the modification with regard to reliable Spent Fuel Pool (SFP) instrumentation in response to Reference 2. This enclosure provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

**2. Milestone Accomplishments**

St. Lucie has selected and entered into a purchase agreement to procure SFP level instruments that, when installed, will meet all the criteria designated in the Overall Integrated Plan submitted on February 28, 2013 (Reference 1).

**3. Milestone Schedule Status**

The Milestone Schedule initially provided in the Overall Integrated Plan (Reference 1 Attachment) has not been changed, except for correction of a typo changing completion of design for Unit 1 from 3Q 2015 to 3Q 2014 as noted in St. Lucie's First Six Month Update submitted on August 27, 2013 (Reference 3).

**4. Changes to Compliance Method**

There currently are no changes to the compliance method documented in the Overall Integrated Plan (Reference 1). Consistent with the requirements of Order EA-12-051 and the Order guidance documents, the six month reports will delineate any proposed changes to compliance methods.

**5. Need for Relief/Relaxation and Basis for the Relief/Relaxation**

St. Lucie is not requesting relief from the requirements of Order EA-12-051 (Reference 2) or guidance document JLD-ISG-2012-03 (Reference 4) at this time.

Consistent with the requirements of Order EA-12-051 (Reference 2) and the guidance in NEI 12-02 (Reference 5), the six month reports will delineate progress made, any proposed changes in compliance methods, updates to the schedule, and if needed, requests for relief and their bases.

## 6. Requests for Additional Information

An Interim Staff Evaluation (ISE) with Request for Additional Information (RAI) was received on November 19, 2013 (Reference 6). Due to ongoing efforts to work through vendor design issues, response to several of these latest RAIs will be deferred and shown "in progress."

The following table provides a summary of the status of Requests for Information received on November 19, 2013 (Reference 6).

RAI	Status
RAI – 1	In progress
RAI – 2 a, b, c	In progress
RAI – 3	In progress
RAI – 4	In progress
RAI – 5 a, b, c	In progress
RAI – 6	In progress
RAI – 7	In progress
RAI – 8	In progress
RAI – 9 a, b	In progress
RAI – 10	In progress
RAI – 11 a, b, c, d	In progress
RAI – 12	In progress
RAI – 13	Response provided
RAI – 14 a, b, c	Responses provided

The RAI responses showing "in progress" require design information that is not available at this time. Responses to these RAIs will be provided when available.

The following RAI responses are included:

### **RAI-13**

*Please provide a list of the procedures addressing operation (both normal and abnormal response), calibration, test, maintenance, and inspection procedures that will be developed for use of the spent SFP Instrumentation. The licensee is requested to include a brief description of the specific technical objectives to be achieved within each procedure.*

### **FPL Response to RAI-13**

The modification review process will be used to ensure all necessary procedures are developed for maintaining and operating the spent fuel level instruments upon installation. These procedures will be developed in accordance with the FPL procedural control process.

The objectives of each procedural area are described below:

Inspection, Calibration, and Testing - Guidance on the performance of periodic visual inspections, as well as calibration and testing, to ensure that each SFP channel is operating and indicating level within its design accuracy.

Preventative Maintenance - Guidance on scheduling of, and performing, appropriate preventative maintenance activities necessary to maintain the instruments in a reliable condition.

Maintenance - To specify troubleshooting and repair activities necessary to address system malfunctions.

Programmatic Controls - Guidance on actions to be taken if one or more channels is out of service.

System Operations - To provide instructions for operation and use of the system by plant staff.

Response to inadequate levels - Action to be taken on observations of levels below normal level will be addressed in site Off Normal procedures and/or FLEX Support Guidelines

#### **RAI-14**

*Please provide the following:*

- a) *Further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements. Include a description of your plans for ensuring that necessary channel checks, functional tests, periodic calibration, and maintenance will be conducted for the level measurement system and its supporting equipment.*
- b) *A description of how the guidance in NEI 12-02 Section 4.3 regarding compensatory actions for one or both non-functioning channels will be addressed.*
- c) *A description of the compensatory actions to be taken in the event that one of the instrument channels cannot be restored to functional status within 90 days.*

#### **FPL Response to RAI-14.a**

SFP instrument channel/equipment maintenance/preventative maintenance and testing program requirements to ensure design and system readiness will be established in accordance with FPL's processes and procedures. The design modification process will take into consideration the vendor recommendations to ensure that appropriate regular testing, channel checks, functional tests, periodic calibration, and maintenance are performed (and available for inspection and audit).

Once the maintenance and testing program requirements for the SFP are determined, the requirements will be documented in Maintenance program documents.

Performance checks, described in the Vendor Operator's Manual, and the applicable information will be contained in plant procedures. Operator performance tests will be performed periodically as recommended by the vendor.

Channel functional tests with limits established in consideration of vendor equipment specifications will be performed at appropriate frequencies.

Channel calibration tests per maintenance procedures with limits established in consideration of vendor equipment specifications are planned to be performed at frequencies established in consideration of vendor recommendations.

**FPL Response to RAI-14.b**

Both primary and backup SFP instrumentation channels incorporate permanent installation (with no reliance on portable, post-event installation) of relatively simple and robust augmented quality equipment. Permanent installation coupled with stocking of adequate spare parts reasonably diminishes the likelihood that a single channel (and greatly diminishes the likelihood that both channel(s) is (are) out-of-service for an extended period of time. Planned compensatory actions for unlikely extended out-of-service events are summarized as follows:

# Channel(s) Out-of-service	Required Restoration Action	Compensatory action
1	Initiate actions to restore channel to functional status within 90 days.	Initiate actions in accordance with Note 1.
2	Initiate action to restore at least one channel to functional status within 24 hours.	Initiate compensatory actions for monitoring Spent Fuel Pool level within 72 hours. (Note 2)

Note 1: If channel restoration is not expected to be completed within 90 days initiate compensatory action. Initiate an evaluation in accordance with the corrective action program. The evaluation shall determine compensatory actions required if a second channel becomes inoperable. The evaluation shall include a planned schedule for restoring the instrument channel(s) to functional status.

Note 2: Initiate an evaluation in accordance with the corrective action program. The evaluation shall document compensatory actions taken or planned to be taken to implement an alternate method of monitoring and schedule required actions for restoring the instrumentation channel(s) to functional status.

**FPL Response to RAI 14.c**

See RAI-14.b response above.

## 7. References

The following references support the updates to the Overall Integrated Plan described in this enclosure.

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.
- (6) NRC Letter to Florida Power and 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.