L-2012-268
10 CFR 52.3

June 29, 2012

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Re: Florida Power & Light Company
Proposed Turkey Point Units 6 and 7
Docket Nos. 52-040 and 52-041
Response to NRC Request for Additional Information Letter No. 58 (eRAI 6434) - Concerning Implementation of Fukushima Near-Term Task Force Recommendations

References:

1. NRC Letter to FPL dated May 1, 2012, Request for Additional Information Letter No. 58 Concerning Implementation of Fukushima Near-Term Task Force Recommendations for the Turkey Point Units 6 and 7 Combined License Application
2. FPL Letter to NRC dated May 31, 2012, Schedule for Response to NRC Request for Additional Information Letter No. 58 (eRAI 6434) - Concerning Implementation of Fukushima Near-Term Task Force Recommendations

Florida Power & Light Company (FPL) provides, as attachments to this letter, its responses to the Nuclear Regulatory Commission's (NRC) requests for additional information (RAI) 01.05-2, RAI 01.05-3, and RAI 01.05-4 provided in the referenced letter. The attachments identify changes that will be made in a future revision of the Turkey Point Units 6 and 7 Combined License Application (if applicable).

Reference 2 provided the schedule for responding to RAI 01.05.-1.

If you have any questions, or need additional information, please contact me at 561-691-7490.

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NRO

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

Executed on June 29, 2012.

Sincerely,

William Maher
Senior Licensing Director – New Nuclear Projects

WDM/ETC

Attachment 1: FPL Response to NRC RAI No. 01.05-2 (RAI 6434)
Attachment 2: FPL Response to NRC RAI No. 01.05-3 (RAI 6434)
Attachment 3: FPL Response to NRC RAI No. 01.05-4 (RAI 6434)

cc:
PTN 6 & 7 Project Manager, AP1000 Projects Branch 1, USNRC DNRL/NRO
Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant 3 & 4

NRC RAI Letter No. PTN-RAI-LTR-058 Dated May 1, 2012

SRP Section: 01.05 – Other Regulatory Considerations

Question from Licensing Branch 4

NRC RAI Number: 01.05-2 (eRAI 6434)

Develop mitigation strategies for beyond-design-basis external events as described in Attachment 3 to Order EA-12-049, (ML12054A735).

FPL RESPONSE:

Attachment 3 to Order EA-12-049, (Reference 1) is identified as applicable to Vogtle Units 3 and 4 in SECY-12-0025, Enclosure 4 (Reference 2). The basis for different requirements for Vogtle Units 3 and 4 from the requirements for other plants was based on the passive design and other features characteristic to the AP1000 design. These AP1000 features are standard, and thus, are also applicable to the Turkey Point Units 6 & 7 design. Therefore, a license condition is proposed with similar content as was required for Vogtle Units 3 and 4 in Attachment 3 of SECY-12-0025, Enclosure 4 (NRC Letter EA-12-051, dated March 12, 2012, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation) (Reference 2). Performing these actions prior to initial fuel load is included as the required time of implementation. This would ensure the mitigation strategies for beyond design basis external events are in place prior to irradiation of fuel when the strategies could potentially be necessary.

This response is PLANT SPECIFIC.

References:

1. NRC Letter EA-12-049, dated March 12, 2012, Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events [ML12054A735].
2. NRC Letter EA-12-051, dated March 12, 2012, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation [ML12054A679].

ASSOCIATED COLA REVISIONS:

Turkey Point Units 6 & 7 COLA, Part 10, Proposed License Conditions (Including ITAAC), will be revised in a future COLA revision to include the following proposed License Condition:

12. FUKUSHIMA ACTIONS

PROPOSED LICENSE CONDITION:

A. MITIGATION STRATEGIES

Prior to initial fuel load, the licensee shall fully implement the following actions associated with mitigation strategies including procedures, guidance, training, and acquisition, staging, or installing of equipment needed for the strategies:

1. **Develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment and spent fuel pool (SFP) cooling capabilities following a beyond-design basis external event. These strategies must:**
   - **Be capable of mitigating a simultaneous loss of all ac power and loss of normal access to the normal heat sink and,**
   - **Have adequate capacity to address challenges to core cooling, containment, and SFP cooling capabilities at all units on the Turkey Point Units 6 & 7 site and,**
   - **Have the capability to be implemented in all modes.**
2. **Provide reasonable protection for the associated equipment from external events. Such protection must demonstrate that there is adequate capacity to address challenges to core cooling, containment, and SFP cooling capabilities at all units on the Turkey Point Units 6 & 7 site.**
3. **The licensee shall within one (1) year after issuance of the COL, submit to the NRC an overall integrated plan, including a description of how compliance with the requirements described in this license condition will be achieved.**
4. **The licensee shall provide to the NRC an initial status report sixty (60) days following issuance of the COL and updates at six (6) month intervals following submittal of the overall integrated plan described above which delineates progress made in implementing the requirements of this license condition.**

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. PTN-RAI-LTR-058 Dated May 1, 2012

SRP Section: 01.05 – Other Regulatory Considerations

Question from Licensing Branch 4

NRC RAI Number: 01.05-3 (eRAI 6434)

Provide sufficient reliable instrumentation, able to withstand design-basis natural phenomena, to monitor spent fuel pool water level, as described in Attachment 3 to Order EA-12-051 (ML12054A679).

FPL RESPONSE:

The FPL response to this item is based on Attachment 3 of Order EA-12-051 (Reference 1). This attachment is identified as applicable to Vogtle Units 3 and 4 in SECY-12-0025, Enclosure 6 (Reference 2). The basis for different requirements for Vogtle Units 3 and 4 in Attachment 3 from the requirements for other plants was based on the design features of the AP1000. These AP1000 features are standard, and thus, are also applicable to the Turkey Point Units 6 & 7 design. Therefore, a license condition is proposed with similar content as was required for Vogtle Units 3 and 4 in Attachment 3 of SECY-12-0025, Enclosure 6 (Reference 2). Performing these actions prior to initial fuel load is included as the required time of implementation. This would ensure reliable spent fuel pool (SFP) level instrumentation is in place prior to irradiation of fuel when the instrumentation could potentially be necessary.

This response is PLANT SPECIFIC.

References:

1. NRC Letter EA-12-051, dated March 12, 2012, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation [ML12054A679].
2. NRC SECY-12-0025 dated February 17, 2012, - Enclosure 6: Order Modifying Licenses: Reliable Spent Fuel Pool Level Instrumentation at Operating Reactor Sites [ML12039A148].

ASSOCIATED COLA REVISIONS:

Turkey Point Units 6 & 7 COLA, Part 10, Proposed License Conditions (Including ITAAC), will be revised in a future COLA revision to include the following proposed License Condition:

12. FUKUSHIMA ACTIONS

PROPOSED LICENSE CONDITION:

B. RELIABLE SPENT FUEL POOL LEVEL INSTRUMENTATION

Prior to initial fuel load, the licensee shall fully implement the following requirements for spent fuel pool (SFP) level indication:

1. **The SFP level instrumentation shall include the following design features:**
   - **Arrangement: The SFP level instrument channels shall be arranged in a manner that provides reasonable protection of the level indication function against missiles that may result from damage to the structure over the SFP. This protection may be provided by locating the safety-related instruments to maintain instrument channel separation within the SFP area, and to utilize inherent shielding from missiles provided by existing recesses and corners in the SFP structure.**
   - **Qualification: The level instrument channels shall be reliable at temperature, humidity, and radiation levels consistent with the SFP water at saturation conditions for an extended period.**
   - **Power supplies: Power for instrumentation channels shall be supplied from sources independent of the plant alternating current (ac) and direct current (dc) power distribution systems, such as portable generators or replaceable batteries. Power supply designs should provide for quick and accessible connection of sources independent of the plant ac and dc power distribution systems. Onsite generators used as an alternate power source and replaceable batteries used for instrument channel power shall have sufficient capacity to maintain the level indication function until offsite resource availability is reasonably assured.**
   - **Accuracy: The instrumentation shall maintain its designed accuracy following a power interruption or change in power source without recalibration.**
   - **Display: The display shall provide on-demand or continuous indication of SFP water level.**
2. **The SFP instrumentation shall be maintained available and reliable through appropriate development and implementation of a training program. Personnel shall be trained in the use and the provision of alternate power to the safety-related level instrument channels.**

3. **The licensee shall within one (1) year after issuance of the COL, submit to the NRC an overall integrated plan, including a description of how compliance with the requirements described in this license condition will be achieved.**
4. **The licensee shall provide to the NRC an initial status report sixty (60) days following issuance of the COL and updates at six (6) month intervals following submittal of the overall integrated plan described above which delineates progress made in implementing the requirements of this license condition.**

ASSOCIATED ENCLOSURES:

None

NRC RAI Letter No. PTN-RAI-LTR-058 Dated May 1, 2012

SRP Section: 01.05 – Other Regulatory Considerations

Question from Licensing Branch 4

NRC RAI Number: 01.05-4 (eRAI 6434)

The NRC staff requests that Florida Power and Light address provisions for enhancing emergency preparedness as it relates to staffing and communications associated with Recommendation 9.3 outlined in Enclosure 5 of the March 12, 2012 letter "Request for information pursuant to Title 10 of the C*ode of Federal Regulations* 50.54(f) regarding Recommendations 2.1, 2.3, and 9.3, of the near-term task force review of insights from the Fukushima Dai-Ichi accident." (ML12053A340).

FPL RESPONSE:

FPL proposes the license condition summarized below to address provisions that shall be taken to enhance emergency preparedness related to staffing and communications per Recommendation 9.3 provided in the March 12, 2012 letter (Reference 1) to licensees and construction permit holders. The current regulatory environment is one best described as "in transition." A new emergency planning rule is currently being implemented by the industry with some aspects of the new rule not required to be fully implemented for several years. Industry-developed staffing assessment guidance (Reference 2; NEI 10-05; endorsed by NRC and Reference 3; NEI 12-01; pending NRC endorsement) are awaiting full NRC endorsement. Onsite Emergency Response Capabilities - Advance Notice of Proposed Rulemaking (Reference 4) (based on the Fukushima Task Force Report), published in April 2012, describes additional considerations for rulemaking that may significantly affect emergency response facility requirements. Current licensees are implementing the orders issued as a result of Fukushima and will acquire empirical data, generate lessons learned, and identify efficiencies beneficial to subsequent emergency response facility implementation.

FPL's proposed license condition is written to allow for a more efficient assessment and implementation of corrective actions identified as a result of the Fukushima events. By committing to perform assessments after regulatory guidance has been established and after lessons learned, allows for a more efficient, regulatory compliant result. In addition, this approach allows for consideration of improvements in technology as part of the assessment of communications capabilities.

The proposed license condition requires FPL to perform an assessment of onsite and augmented staffing capability that satisfies regulatory requirements for response to a multi-unit event at least two years prior to scheduled initial fuel load. The 2-year timeframe is sufficient to address additional staffing needs and/or organizational changes that may be identified in the assessment (e.g., hiring and training of new employees, changes to the emergency response organization, etc.) prior to the full participation exercise and subsequent initial fuel loading.

The proposed license condition requires FPL to perform an assessment of the onsite and off-site communications systems at least two years prior to scheduled initial fuel load, but allows for the performance and implementation as soon as the regulatory environment stabilizes. The communications assessment will likely be accomplished at an earlier date (pending rulemaking and regulatory guidance development) to support equipment procurement and installation, development and training of the emergency response organization, and performance of the full participation exercise. Corrective actions from the assessment shall be identified and implemented at least 180 days prior to scheduled initial fuel load. The timeframe of 180 days prior to scheduled initial fuel load for completion of the corrective actions is also consistent with the completion milestones for program implementation described in Chapter 13 of the Final Safety Analysis Report.

This response is PLANT SPECIFIC.

References:

1. NRC Letter dated March12, 2012, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident [ML12053A340].
2. Nuclear Energy Institute, NEI 10-05, Rev. 0, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities [ML111751698]; June 2011.
3. Nuclear Energy Institute, NEI 12-01, Rev. 0, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities [ML12110A204]; April 2012.
4. Onsite Emergency Response Capabilities - Advance Notice for Proposed Rulemaking (FR 23161, Vol. 77, No. 75, April 18, 2012).

ASSOCIATED COLA REVISIONS:

Turkey Point Units 6 & 7 COLA Part 10, Proposed License Conditions (Including ITAAC), will be revised in a future COLA revision to include the following proposed License Condition:

12. FUKUSHIMA ACTIONS

PROPOSED LICENSE CONDITION:

C. EMERGENCY PLANNING ACTIONS

Staffing

At least two (2) years prior to scheduled initial fuel load, the licensee shall have performed an assessment of the onsite and augmented staffing capability to satisfy the regulatory requirements for response to a multi-unit event. The staffing assessment will be performed in accordance with NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and

Communications Capabilities, or other NRC endorsed guidance in effect six months prior to commencement of the assessment.

At least two (2) years prior to scheduled initial fuel load, the licensee will revise the Emergency Plan to include the following:

- **Incorporation of corrective actions identified in the staffing assessment described above.**
- **Identification of how the augmented staff will be notified given degraded communications capabilities.**

Communications

At least two (2) years prior to scheduled fuel load, the licensee shall have performed an assessment of on-site and off-site communications systems and equipment required during an emergency event to ensure communications capabilities can be maintained during prolonged station blackout conditions. The communications capability assessment will be performed in accordance with NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, or other NRC approved guidance in effect six (6) months prior to commencement of the assessment.

At least one hundred eighty (180) days prior to scheduled initial fuel load, the licensee shall complete implementation of corrective actions identified in the communications capability assessment described above, including any related emergency plan and implementing procedure changes and associated training.

ASSOCIATED ENCLOSURES:

None