



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

May 11, 2015

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy
P. O. Box 14000
Juno Beach, FL 33408-0420

**SUBJECT: ST. LUCIE PLANT, UNIT NOS. 1 AND 2 - REQUEST FOR ADDITIONAL
INFORMATION ON LICENSE AMENDMENT REQUEST FOR A PERMANENT
EXTENSION TO THE CONTAINMENT TYPE A LEAK RATE TESTING
(TAC NOS. MF4694 AND MF4695)**

Dear Mr. Nazar:

By letter dated August 26, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14241A496), as supplemented by letter dated January 14, 2015 (ADAMS Accession No. ML15029A496), Florida Power and Light Company (the licensee) requested changes to the technical specifications for the St. Lucie Plant, Unit Nos. 1 and 2. The proposed changes would permit the existing Containment Integrated Leak Rate Testing frequency to be extended from 10 years to 15 years on a permanent basis.

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the information provided by the licensee. The NRC staff determined that it needs additional information to complete the review of the subject license amendment request. The request for additional information is enclosed. This request was discussed with Ms. Atanya Lewis on April 22, 2015, and it was agreed that a response would be provided by May 14, 2015.

M. Nazar

- 2 -

If you have any questions, please contact me at (301) 415-1447 or farideh.saba@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Farideh E. Saba". The signature is written in a cursive style with a large, stylized 'F' and 'S'.

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:
Request for Additional Information

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REQUEST FOR ADDITIONAL INFORMATION
LICENSE AMENDMENT REQUEST FOR A PERMANENT EXTENSION
TO THE CONTAINMENT TYPE A LEAK RATE TESTING
FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-335 AND 50-389

Containment & Ventilation Branch Request for Additional Information No. 2

License Amendment Request (LAR) Section 3.1 "Previous Type A Test 3.1 Integrated Leak Rate Test (ILRT) Results" (pages 9 and 10, Enclosure, Reference 1) provides some details of the test results that satisfied the Technical Specification 6.8.4.h requirements from the two most recent ILRTs for both St. Lucie Plants, Unit Nos. 1 and 2 *(SL-1 and 2). For SL-1, the most recent successful ILRT was completed in December 2005. For SL-2, the most recent successful ILRT was completed in December 2007.

Florida Power and Light Company (FPL) concluded, in the last sentence of page 9, that "Any unplanned modifications to the containment prior to the next scheduled Type A test would be subject to the special testing requirements (Section IV.A of 10 CFR 50 [Title 10 of the *Code of Federal Regulations* Part 50], Appendix J, 'Containment Modification,'" which reads:

Containment modification. Any major modification, replacement of a component which is part of the primary reactor containment boundary, or resealing a seal-welded door, performed after the preoperational leakage rate test shall be followed by either a Type A, Type B, or Type C test, as applicable for the area affected by the modification. The measured leakage from this test shall be included in the summary report required by V.B. The acceptance criteria of III.A.5.(b), III.B.3., or III.C.3., as appropriate, shall be met. Minor modifications, replacements, or resealing of seal-welded doors, performed directly prior to the conduct of a scheduled Type A test do not require a separate test.

As indicated in LAR Section 3.2, "Type B and Type C Testing (LLRT) [Local Leak-Rate Test Program]" (page 10, Enclosure, Reference 1):

To permit operation at Extended Power Uprate (EPU) conditions, the NRC [U.S. Nuclear Regulatory Commission] issued Amendment 213 [Agencywide Documents Access and Management System (ADAMS) Accession No.] ML12156A208), which raised the Unit 1 P_a [accident pressure] value from 39.6 psig [pounds per square inch gauge] to 42.8 psig, and Amendment 163 (ML12235A463), which raised the Unit 2 P_a value from 41.8 psig to 43.5 psig.

Amendment 213 for SL-1 was issued on July 9, 2012, and Amendment 163 for SL-2 was issued on September 24, 2012. The NRC staff notes that FPL indicated that all SL-1 and 2

Enclosure

components within the scope of the LLRT program are being tested at these revised P_a values with the words:

Currently all components within the scope of the LLRT program are being tested at a test frequency of each refueling outage. This was commenced prior to approval of EPU operation for both units to ensure compliance with the requirements for performing LLRT at or above P_a pressure and to conservatively establish a new performance history even though the new P_a values are not significantly higher. Currently, St. Lucie has not begun the reevaluation process for extended test intervals."

Given the above regulatory requirement and the above sequence of events:

- a. The NRC staff notes that the last sentence of Section 9.2.3, "Extended Test Intervals," of Nuclear Energy Institute (NEI) 94-01 Revision 2-A (Reference 2) reads, "In the event where previous Type A tests were performed at reduced pressure (as described in 10 CFR 50, Appendix J, Option A), at least one of the two consecutive periodic Type A tests shall be performed at peak accident pressure (P_a)."

Based on this statement for both SL-1 and 2, confirm that at least one of the actual ILRT test pressures employed during the two most recent Type A tests (per the guidance of American National Standards Institute/American Nuclear Society (ANSI/ANS) 56.8-1994 (Reference 3) bound the revised P_a values of SL-1 Amendment 213 and SL-2 Amendment 163, respectively.

- b. As noted in LAR Section 3.2, SL1- and 2 implemented conducting Appendix J, Type B and Type C tests at the revised P_a values and at a frequency of each refueling outage, prior to NRC approval of EPU operation. The NRC staff requests that FPL provide a summary of the cumulative Type B and Type C test totals from each of the refueling outages since this implementation.

In addition to providing a historical comparison, the staff requests that FPL provide the cumulative Type B and Type C test totals associated with the most recent SL-1 ILRT (completed in December 2005) and the most recent SL-2 ILRT (completed in December 2007). The staff also requests for the "PSL-1 [Plant St. Lucie, Unit No. 1] and PSL-2 LLRT Failures 2005-2014" listed in the tables of LAR Attachment 6, that FPL explain what corrective actions have been taken to correct the problems of components with a history of repetitive failures.

References:

1. Letter L-2014-230, dated August 26, 2014, from Joseph Jensen, FPL to NRC regarding License Amendment Request for the St. Lucie Nuclear Plant Regarding Permanently Extending the Integrated Leak Rate Test Frequency to 15 Years (ADAMS Accession No. ML14241A496).

2. Topical Report NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," October 2008 (ADAMS Accession No. ML100620847).
3. ANSI/ANS-56.8-1994, "American National Standard for Containment System Leakage Testing Requirements."

M. Nazar

- 2 -

If you have any questions, please contact me at (301) 415-1447 or farideh.saba@nrc.gov.

Sincerely,

/RA/

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:
Request for Additional Information

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***by E-mail**

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