



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

December 23, 2015

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

SUBJECT: ST. LUCIE PLANT, UNIT NOS. 1 AND 2 - CLOSEOUT OF REVIEW OF  
THE REVISED CLASS I SMALL-BORE PIPING LICENSE RENEWAL  
COMMITMENTS AND INSPECTION PLAN (CAC NOS. MF6317 AND MF6318)

Dear Mr. Nazar:

By letter dated May 11, 2015 (Agencywide Documents Access and Management System Accession No. ML15140A394), Florida Power and Light Company (FPL) (the licensee) submitted to the Nuclear Regulatory Commission (NRC) revised commitments and inspection plan for one-time inspection of small bore piping. This inspection was originally provided as part of the FPL license renewal application and was addressed as Commitment 7 for Unit 1, and Commitment 6 for Unit 2 in Table 1 of Appendix D of the NRC staff's "Safety Evaluation Report Related to the License Renewal of St. Lucie Nuclear Plant, Units 1 and 2," NUREG-1779, September 2003. In its letter dated May 11, 2015, the licensee revised Commitment 7 for Unit 1, and Commitment 6 for Unit 2 to clarify that a destructive examination may be performed in lieu of volumetric examinations, if an opportunity presents itself.

The NRC staff reviewed the licensee's revised commitments and inspection plan and concluded that the revised commitments and the inspection plan met the NRC's guidance provided in Aging Management Program XI.M35 of the Generic Aging Lessons Learned Report, Revision 2. Details are set forth in the enclosed safety evaluation.

M. Nazar

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If you have any questions regarding this letter, please contact me at (301) 415-1447.

Sincerely,

A handwritten signature in black ink, appearing to read 'F. Saba', written over a faint, dotted grid background.

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:  
Safety Evaluation

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SAFETY EVALUATION LICENSE RENEWAL COMMITMENT CHANGE

ST. LUCIE NUCLEAR PLANT, UNIT NOS. 1 AND 2

FLORIDA POWER AND LIGHT COMPANY

DOCKET NOS. 50-335 AND 50-389

CAC NOS. MF6317 AND MF6318

1.0 INTRODUCTION

By letter dated May 11, 2015 (Agencywide Documents Access and Management System Accession No. ML15140A394), Florida Power and Light Company (FPL) (the licensee) submitted to the Nuclear Regulatory Commission (NRC) revised commitments and inspection plan for one-time inspection of small bore piping at St. Lucie Plant, Unit Nos. 1 and 2. This inspection was originally provided as part of the FPL license renewal application and was addressed as Commitment 7 for Unit 1, and Commitment 6 for Unit 2 in Table 1 of Appendix D of the NRC staff's "Safety Evaluation Report Related to the License Renewal of St. Lucie Nuclear Plant, Units 1 and 2," NUREG-1779, September 2003. In its letter dated May 11, 2015, the licensee revised Commitment 7 for Unit 1, and Commitment 6 for Unit 2 to clarify that a destructive examination may be performed in lieu of volumetric examinations, if an opportunity presents itself.

The NRC staff reviewed the licensee's revised commitments and inspection plan and concluded that the revised commitments and the inspection plan met the NRC's guidance provided in Aging Management Program (AMP) XI.M35 of the Generic Aging Lessons Learned (GALL) Report, Revision 2. Details are set forth in the following evaluation.

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," provides requirements for license renewal applications. Paragraph 10 CFR 54.21(a)(3) requires that "For each structure and component identified in paragraph (a)(1) of this section, demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained consistent with the CLB [current licensing basis] for the period of extended operation." The NRC staff reviewed the information provided in the St. Lucie Plant License Renewal Application regarding the licensee's One-Time Inspection of Class 1 Small-Bore Piping AMP to ensure that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the CLB throughout the period of extended operation.

Enclosure

Commitment 7 for Unit 1 and Commitment 6 for Unit 2, in Table 1 of Appendix D of the NRC staff's safety evaluation of the FPL's license renewal application, state that the licensee, prior to the end of the initial operating licensing term, perform volumetric examinations of a sample of Class 1 small-bore piping and submit a report summarizing the inspection plan for Class 1 small bore piping prior to implementation. The licensee submitted documents dated March 19 and September 3, 2014, to meet these requirements as captured in the St. Lucie Updated Final Safety Analysis Report Section 18.1.5. In its letter dated May 11, 2015, the licensee revised Commitment 7 for Unit 1, and Commitment 6 for Unit 2, to clarify that a destructive examination may be performed in lieu of volumetric examinations, if an opportunity presents itself.

### 3.0 TECHNICAL EVALUATION

In its letter dated May 11, 2015, regarding volumetric examination of socket welds, the licensee revised its commitment to state that "a destructive examination may be performed in lieu of the volumetric examination." It also states that "For each socket weld that is destructively examined, credit may be taken as being equivalent to volumetrically examining two socket welds."

The NRC staff noted that the guidance was updated by Revision 2 of the GALL Report for AMP XI.M35. The current guidance for socket weld examination allows volumetric or destructive examinations, or a combination of both. The GALL Report guidance also specifies that for socket weld examination, destructive examination in lieu of volumetric examination can credit on a two-for-one basis because more information can be obtained from a destructive examination than from nondestructive examination. The staff finds the proposed revision of the commitment is consistent with the guidance in AMP XI.M35 of the GALL Report, Revision 2 regarding examination methodology.

In regards to volumetric examination of butt welds, the licensee revised its commitment to state that "A destructive examination may be performed on a butt weld instead of volumetric examination, if an opportunity presents itself."

The NRC staff noted that the current guidance in Revision 2 of the GALL Report for AMP XI.M35 only specifies volumetric (e.g., UT) examination for butt welds since there are well established qualified procedures and techniques for such examinations. A licensee is nonetheless allowed to use opportunistic destructive examinations if so desired as more information can be obtained from a destructive examination than from a nondestructive examination. However, for butt weld examination, destructive examination in lieu of volumetric examination can be credited on a one-for-one basis. The staff finds the proposed commitment change to opportunistic destructive examinations appropriate in this case because it provides the same level of detection of aging effects.

#### 4.0 CONCLUSION

The NRC staff reviewed the revised commitments and inspection plan submitted by the licensee's letter dated May 11, 2015. Based on this review, the NRC staff concluded that the revised commitments and the inspection plan are consistent with the NRC staff guidance provided in AMP XI.M35 of the GALL Report, Revision 2.

Principal Contributor: Bart Fu

M. Nazar

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If you have any questions regarding this letter, please contact me at (301) 415-1447.

Sincerely,

***/RA PBuckberg for/***

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:  
Safety Evaluation

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