



**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 NO. 1 – ONE-TIME INSPECTION OF CLASS 1
SMALL-BORE PIPING INSPECTION PLAN (TAC NO. MF4754)**

Dear Mr. Nazar:

By letter dated September 3, 2014, Florida Power and Light Company (FPL, the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC) a document titled, "License Renewal One-Time Inspection of Class 1 Small Bore Piping Inspection Plan Submittal" for St. Lucie Plant, Unit No. 1. The licensee submitted this document to meet the commitment in the Unit No. 1 Updated Final Safety Analysis Report, Section 18.1.5, Small Bore Class 1 Piping Inspection, which states that a report describing the details of the one-time inspection plan will be submitted prior to implementation of the inspection. This inspection was originally provided as part of the FPL license renewal application and was addressed as Commitment 7 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. By letter dated March 19, 2014, the licensee revised Commitment 7 for Unit No. 1 so that the inspection would follow the NRC's guidance provided in AMP XI.M35, "One-time Inspection of ASME [American Society of Mechanical Engineers] Code Class 1 Small-bore Piping, of Generic Aging Lessons Learned (GALL) Report," NUREG-1801, Revision 2.

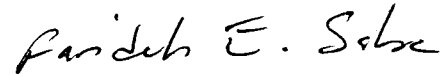
The NRC staff reviewed the licensee's submitted revised commitment and inspection plan and concluded that the revised commitment and the inspection plan are consistent with the NRC's guidance provided in AMP XI.M35 of the GALL Report, Revision 2. Details are set forth in the enclosed safety evaluation.

M. Nazar

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

Sincerely,

A handwritten signature in black ink, reading "Farideh E. Saba". The signature is written in a cursive, flowing style.

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

Docket No. 50-335

Enclosure:
Safety Evaluation

cc w/enclosure: Distribution via Listserv



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ONE-TIME INSPECTION OF CLASS 1 SMALL-BORE PIPING INSPECTION PLAN

RENEWED FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

1.0 INTRODUCTION

By letter dated September 3, 2014 (Agencywide Document Access and Management System (ADAMS) Accession No. ML14261A107), Florida Power and Light Company (FPL, the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC) a document titled, "License Renewal One-Time Inspection of Class 1 Small Bore Piping Inspection Plan Submittal" for St. Lucie Plant, Unit No. 1. The licensee submitted this document to meet the commitment in the Unit No. 1 Updated Final Safety Analysis Report (UFSAR), Section 18.1.5, Small Bore Class 1 Piping Inspection that states that a report describing the details of the one-time inspection plan will be submitted prior to implementation of the inspection. This inspection was originally provided as part of the FPL license renewal application and was addressed as Commitment 7 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 (ADAMS Accession No. ML032940205). By letter dated March 19, 2014 (ADAMS Accession No. ML14087A007), the licensee revised Commitment 7 for Unit No. 1 so that the inspection would follow the NRC's guidance provided in AMP XI.M35, "One-time Inspection of ASME [American Society of Mechanical Engineers] Code Class 1 Small-bore Piping, of Generic Aging Lessons Learned (GALL) Report," NUREG-1801, Revision 2.

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. Section 54.21(a)(3) of 10 CFR 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 current licensing basis for the period of extended operation." The NRC staff reviewed the information included in the St. Lucie Plant license renewal application regarding the licensee's inspection of small bore Class 1 Aging Management Program to ensure that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis throughout the period of extended operation.

Enclosure

Commitments 6 and 7 in Table 1 of Appendix D of the NRC staff's safety evaluation of FPL's license renewal application require that the licensee, prior to the end of the initial operating licensing term, perform volumetric inspections of a sample of small bore Class 1 piping and submit a report summarizing the inspection plan for small bore Class 1 piping prior to implementation. The licensee submitted documents to the NRC dated March 19 and September 3, 2014, to meet these requirements as captured in Section 18.1.5 of the St. Lucie Plant UFSAR.

3.0 TECHNICAL EVALUATION

The licensee stated in its September 3, 2014, submittal:

This plan augments the requirements in American Society of Mechanical Engineers (ASME) Code, Section XI, 1998 edition with Addenda through 2000, and is applicable to small-bore ASME Code Class 1 piping and systems less than 4 inches nominal pipe size (less than NPS 4) and greater than or equal to NPS 1. The plan includes pipes, fittings, branch connections, and all full and partial penetration (socket) welds.

The NRC staff reviewed the revised commitment and inspection plan submitted in the licensee's March 19, 2014, and September 3, 2014, letters. Based on this review, the NRC staff concluded that the revised commitment and the inspection plan are consistent with the NRC staff guidance provided in AMP XI.M35 of the GALL Report, Revision 2. The bases for this conclusion are summarized as follows:

1. Program applicability: The licensee committed to using a one-time program instead of a periodic inspection program. Since there have been no age-related failures in its Class 1 small-bore piping based on the licensee's plant-specific operating experience, the one-time program is applicable according to the recommendation of AMP XI.M35 of the GALL Report, Revision 2.
2. Schedule: The licensee indicated that the inspection will be performed within 6 years prior to entering the period of extended operation. This is consistent with AMP XI.M35 of the GALL Report, Revision 2, for timely inspection.
3. Program scope: The licensee stated that the program scope includes ASME Code Class 1 small-bore piping, less than 4 inches and greater than, or equal to, 1 inch NPS size. This is consistent with AMP XI.M35 of the GALL Report, Revision 2, regarding program scope.
4. Sample selection methodology: The licensee indicated that it will inspect weld locations that are susceptible to cracking for the small-bore piping sample selection. This is consistent with AMP XI.M35 of the GALL Report, Revision 2, regarding inspection sample selection.
5. Inspection sample size: The licensee indicated that the sample size is at least 3 percent up to 10 welds for each weld type (full penetration welds and socket welds). This is

consistent with the inspection sampling guidance provided in AMP XI.M35 of the GALL Report, Revision 2.

6. Examination methodology: The licensee indicated that the examination will be volumetric for full penetration welds. This is consistent with AMP XI.M35 of the GALL Report, Revision 2, regarding examination of full penetration welds. For socket welds, the licensee indicated that the examination will be destructive. The NRC staff guidance for socket weld examination allows volumetric or destructive examinations, or a combination of both. Also, the GALL Report guidance indicates that, for socket weld examination, destructive examination in lieu of volumetric examination will get credit on a two-for-one basis. Therefore, the proposed examination methodology is consistent with AMP XI.M35 of the GALL Report, Revision 2, regarding examination methodology.

Principal Contributor: Bart Fu

Date: May 11, 2015

M. Nazar

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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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