



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

September 24, 2021

Mr. Robert Coffey
Vice President, Nuclear and
Chief Nuclear Officer
Florida Power & Light Company
700 Universe Boulevard
Mail Stop: EX/JB
June Beach, FL 33408

SUBJECT: ST. LUCIE PLANT, UNITS 1 AND 2 – AGING MANAGEMENT AUDIT PLAN
REGARDING THE SUBSEQUENT LICENSE RENEWAL APPLICATION
REVIEW

Dear Mr. Coffey:

By letter dated August 3, 2021 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML21215A314), the Florida Power & Light Company (FPL or the applicant) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Units 1 and 2 (St. Lucie).

The NRC plans to conduct an Aging Management Audit from October 4–February 25, 2021, in accordance with the enclosed regulatory audit plan. The Aging Management Audit will be conducted at NRC Headquarters and St. Lucie site, as appropriate. If you have any questions, please contact Lois James at 301-415-3306 or by e-mail at Lois.James@nrc.gov.

Sincerely,

/RA/

Lauren K. Gibson, Chief
License Renewal Projects Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:
Aging Management Audit Plan

SUBJECT: ST. LUCIE PLANT, UNITS 1 AND 2 – AGING MANGAGMENT AUDIT PLAN
REGARDING THE SUBSEQUENT LICENSE RENEWAL APPLICATION
REVIEW DATED: SEPTEMBER 24, 2021

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ADAMS Accession No. ML21245A305***via e-concurrence****NRR-106**

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DATE	9/3/2021	9/3/2021	9/8/2021	9/24/21

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Audit Plan
St. Lucie Plant, Units 1 and 2
Subsequent License Renewal
Application
Aging Management Regulatory Audit
October 4, 2021 – February 25, 2021

Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

**Audit Plan
St. Lucie Plant, Units 1 and 2
Subsequent License Renewal Application
Aging Management Regulatory Audit**

1. Background

By letter dated August 3, 2021 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML21215A314), the Florida Power & Light Company (FPL or the applicant) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Units 1 and 2 (St. Lucie). The staff is reviewing this application in accordance with the guidance in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants," (SRP-SLR).

In accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," NRC staff will perform an aging management regulatory audit to gain a better understanding of (1) the applicant's methodology to identify the systems, structures, and components (SSCs) to be included within the scope of subsequent license renewal and subject to an aging management review (AMR), and (2) the applicant's aging management programs (AMPs), AMR items, time-limited aging analyses (TLAAs), and associated bases and documentation as applicable.

2. Regulatory Audit Bases

License renewal requirements are specified in 10 CFR Part 54. Guidance is provided in the SRP-SLR and NUREG-2191, Revision 0, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," dated July 2017.

3. Regulatory Audit Scope of Review

Scoping and Screening Review

The purpose of the scoping and screening review is to evaluate the applicant's scoping and screening methodology used to identify SSCs within the scope of subsequent license renewal and subject to AMR, as well as the results of the implementation of the methodology. The review is performed by evaluating the scoping and screening process and results, as documented in the subsequent license renewal application (SLRA), implementing procedures, reports, and drawings, such that the NRC staff:

- Obtains an understanding of the process used to identify the SSCs within the scope of license renewal and to identify the structures and components subject to an AMR; and
- Has sufficient docketed information to allow the NRC staff to reach a conclusion on the adequacy of the scoping and screening methodology and results, as documented in the SLRA.

AMP, AMR, and TLAA Review

The scope of the AMP, AMR, and TLAA review is to: (a) examine the applicant's AMPs, AMR items, and TLAAs; (b) verify the applicant's claims of consistency with the corresponding GALL-SLR Report AMPs, and AMR items; and (c) assess the adequacy of the TLAAs. Enhancements and exceptions will be evaluated on a case-by-case basis with the results documented in the safety evaluation.

The NRC staff will audit Program Elements 1 – 10 (scope, preventive actions, parameters monitored or inspected, detection of aging effects, monitoring and trending, acceptance criteria, corrective actions, confirmation process, administrative controls, and operating experience (OE)) of the AMPs against the elements of the associated AMP described in the GALL-SLR Report. In addition, the NRC staff will verify that the conditions at the plant are bounded by the conditions for which the GALL-SLR Report program was evaluated.

The NRC staff will also examine the applicant's program bases documents and related references for AMPs, AMR items, and TLAAs, and interview applicant representatives to obtain additional clarification.

The NRC staff will use risk insights to inform the prioritization of its review of documentation associated with AMPs, AMR items, and TLAAs and to focus the breadth and depth of its review of plant specific operating procedures and OE. However, the NRC staff's review is not limited to risk-significant systems and components because 10 CFR Part 54 is a deterministic rule and the NRC staff must conclude that there is reasonable assurance that activities will continue to be conducted in accordance with the current licensing basis and the effects of aging will be managed during the subsequent period of extended operation for all structures and components within the scope of 10 CFR Part 54.

The NRC staff has reviewed the list of risk-significant systems and components provided by the applicant to inform the establishment of priorities for the performance of the scoping and screening review.

4. Audit Activities

The Aging Management Audit will consist of three parts, to be scheduled and coordinated between the staff and the applicant. The three Aging Management Audit parts include:

- Part 1 – In-Office Technical Review Audit

During the In-Office Technical Review Audit, technical staff will review the SLRA, as supplemented and revised, the AMP basis documents and other FPL supporting documents, as appropriate and requested, on the applicant's electronic portal (ePortal). The project team would like continued FPL document review capability via the ePortal. Document requests for upload to the ePortal shall be made as needed via the NRC safety project manager to the appropriate applicant licensing manager.

Regarding OE portion of the audit, the staff will review:

(1) Applicant's Process to Identify OE Used in Development of AMPs. The staff requests that the applicant provides a presentation on the process used to

identify and evaluate the pertinent OE that was used to inform the development of the AMPs as discussed in the SLRA and basis documentation.

(2) Use of OE Contained in AMP Report-Out Documents. The staff requests that the applicant discuss how the OE contained in the AMP report-out documents (e.g., reports of inspections, assessments, AMP effectiveness reviews) is in alignment with information contained in the corrective action program (CAP) database and how the process described in (1) along with the use of the report-out information would include any pertinent OE otherwise contained in the CAP database. The applicant should demonstrate that OE identified by the process or included in the report-out documents is bounding of OE that should be considered for developing the SLRA. Additionally, the applicant should provide examples of the report-out documents and corresponding corrective action reports.

(3) Staff's Review of Age-Related OE Contained in the CAP Database. Following the applicant's presentations on the process to identify and evaluate OE as well as the information included in the report-out documents, the staff should determine if there are any specific areas of OE that have not been sufficiently addressed or if there is a need to sample the information discussed by the applicant to verify the applicant's results. If the staff identifies such a need, the staff will have an opportunity to perform an independent review of age-related OE contained in the CAP database, as necessary, to provide reasonable assurance that the applicant has adequately identified and evaluated pertinent OE in the development of the SLRA in Part 2 of the Aging Management Audit.

At the conclusion of the In-Office Technical Review Audit, the staff will identify any areas requiring inclusion in the On-Site Audit, Part 2 of the Aging Management Audit. The identified areas may include OE that should be further considered and the need for observation of areas, equipment conditions, or configurations.

- Part 2 – On-Site Audit

The purpose of the On-Site Audit is to make visual observations of areas, equipment conditions, and configurations, and conduct an OE review, as needed. Due to ongoing health guidelines related to travel and gatherings, the St. Lucie On-Site Audit may be conducted using telecommunications when appropriate.

The On-Site Audit is performed, in part, by an integrated review team, which will include an OE review as well as observations of areas, equipment conditions, and configurations, as needed.

On an as needed basis, the staff should perform an independent review of age-related OE contained in the CAP database to provide reasonable assurance that the applicant has adequately identified and evaluated pertinent OE in the development of the SLRA.

- Part 3 – In-Office Breakout Sessions

During the In-Office Breakout Sessions, the NRC staff will have the opportunity to discuss various basis documents, references, condition/corrective action reports, and to obtain additional clarification related to the SLRA safety review with applicant.

The NRC staff would like to hold breakout sessions, via electronic means, of communication with FPL and St. Lucie subject matter experts to discuss various basis documents, references, condition/corrective action reports, and interview FPL representatives to obtain additional clarification related to the license renewal review. Breakout sessions for various technical review areas will occur at predesignated time slots during the audit, with preassigned NRC and FPL representatives. NRC staff will provide discussion topics and technical requests and questions to the NRC safety project manager, who will then relay the information to the FPL licensing manager. Any information requests transmitted to the applicant will be included in the audit report. All breakout sessions will be coordinated via the NRC safety project manager and the FPL licensing manager.

5. Information and Other Material Necessary for the Regulatory Audit

Throughout the Aging Management Audit, the staff will review the SLRA, as supplemented and revised, the AMP basis documents and other applicant supporting documents as appropriate and requested, which have been uploaded to the ePortal.

The staff may request additional applicant documents to be added to the ePortal during the course of the audit. The staff requests for ePortal additions shall be made, as needed, to the safety project manager, who will provide the requests to the applicant.

All documents used as the basis for the staff's review will be documented in the audit report.

6. Team Members

Team Member	Branch/Division
Hector Rodriguez-Luccioni	License Renewal Projects Branch/Division of New and Renewed Licenses (DNRL)
Naeem Iqbal	PRA Licensing B (APLB)/Division of Risk Assessment (DRA)
Thinh Dinh	APLB/DRA
Duc Nguyen	Long Term Operations and Modernization Branch (ELTB)/Division of Engineering and External Hazards (DEX)
Matthew McConnell	ELTB/DEX
Jorge Cintron	ELTB/DEX
Gucharan Matharu	ELTB/DEX
Liliana Ramadan	ELTB/DEX
Hari Kodali	Electrical Engineering Branch (EEEEB)/DEX
Adakou Foli	EEEEB/DEX
Andrew Prinaris	Structural, Civil, Geotech Engineering (ESEB)/DEX
Bryce Lehman	ESEB/DEX
George Thomas	ESEB/DEX
George Wang	ESEB/DEX
Ata Istar	ESEB/DEX
Zuhan Xi	ESEB/DEX
Juan Lopez	ESEB/DEX
Andrew Johnson	Corrosion and Steam Generator (NCSG)/DNRL

Brian Allik	NCSG/DNRL
Greg Makar	NCSG/DNRL
Jim Gavula	NCSG/DNRL
Leslie Terry	NCSG/DNRL
Lydiana Alvarado	NCSG/DNRL
Matt Yoder	NCSG/DNRL
Paul Klein	NCSG/DNRL
Tony Gardner	NCSG/DNRL
Andrew Johnson	NCSG/DNRL
David Pratt	NCSG/DNRL
Ali Rezai	Piping and Head Penetrations (NPHP)/DNRL
Bart Fu	NPHP/DNRL
Eric Reichelt	NPHP/DNRL
Jay Collins	NPHP/DNRL
Var Kalikian	NPHP/DNRL
Seung Min	NPHP/DNRL
Carolyn Fairbanks	Vessels and Internals (NVIB)/DNRL
Isaac Anchondo	NVIB/DNRL
David Dijamco	NVIB/DNRL
Jim Medoff	NVIB/DNRL
John Tsao	NVIB/DNRL
Karen Sida	NVIB/DNRL
On Yee	NVIB/DNRL
David Nold	Containment and Plant Systems (SCPB)/Division of Safety Systems (DSS)
Danny Chien	SCPB/DSS
Derek Scully	SCPB/DSS
Raul Hernandez	SCPB/DSS
Steve Jones	SCPB/DSS
Diana Woodyatt	Nuclear Systems Performance (SNSB)/DSS
Jeremy Dean	Nuclear Methods and Fuels (SFNB)/DSS
Kent Wood	SFNB/DSS

7. Logistics

The Aging Management Audit will be conducted primarily using telecommunications from October 4, 2021 to February 25, 2021, with potentially a portion of the On-Site Audit (Aging Management Audit Part 2), as determined appropriate, conducted at the applicant's facility. Entrance and exit briefings will be held at the beginning and end of the audit via telecommunications.

8. Special Requests

The NRC staff requests the applicant to make available the license renewal application program basis documentation and drawings, and other documents as requested.

9. Deliverables

An audit report should be issued to the applicant within 90 days from the end of the Aging Management Audit.