



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

November 23, 2021

LICENSEE: Florida Power & Light Company
FACILITY: Turkey Point Nuclear Generating Units 3 and 4
SUBJECT: SUMMARY OF PRE-APPLICATION MEETINGS WITH FLORIDA
POWER & LIGHT CONCERNING A PROPOSED DIGITAL
INSTRUMENTATION AND CONTROL UPGRADE ON TURKEY
POINT UNITS 3 AND 4 (EPID L-2021-LRM-0007)

On June 9 and July 22, 2021, partially closed observation public meetings were held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Florida Power & Light Company (the licensee) via teleconference. The purpose of the partially closed meetings was to discuss the licensing process proposed for the Turkey Point Nuclear Generating Units 3 and 4 digital instrumentation and control (DI&C) license amendment request. The meeting notices and agendas, dated June 9 and July 22, 2021, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession Nos. ML21148A172 and ML21193A141. A list of attendees is provided as Enclosure 1.

The licensee presented information for both meetings which are available in ADAMS. The slides for the public portion of the meetings can be found under ADAMS Accession Nos. ML21159A171, ML21159A189, ML21200A156 and ML21200A147.

JUNE 9, 2021

The licensee provided an update regarding the intent to submit a licensing amendment request for a digital upgrade on two vertical panels in the control room for Turkey Point Units 3 and 4, using the Tricon Platform approved by the NRC in a safety evaluation dated April 12, 2012 (ADAMS Accession No. ML120900890). The focus for this meeting was in the areas proposed architecture for the system (including the diversity and defense-in-depth (D3) analyses), details regarding the Vendor Oversight Plan (VOP), the proposed associated technical specification (TS) change reducing/extending instrumentation related surveillances (SRs), and the various follow-up items from the April 8, 2021 meeting.

The licensee provided an update on ongoing design lifecycle activities and discussed the proposed quality assurance (QA) program elements related to the DI&C upgrade. The necessity of a failure modes effect analyses (FMEA) in support of the proposed TS SRs reduction/extension request was discussed. The NRC staff reiterated the importance of ensuring relevant information related to the proposed submittal would be placed on the docket consistent with the NRC documentation requirements in Title 10 to the *Code of Federal Regulations* (10 CFR) Part 50.

Additional discussions during the meeting covered assumptions related to the D3 analyses, describing the engineered safety features actuation system (ESFAS) architecture, the safety/non-safety system interface, the potential elimination of an identified equipment vulnerability, the utility of self-diagnostics, commercial dedication of components, and aspects related to environmental qualification testing and summary activities. The NRC staff had comments relating to the lack of applicability of some of the plant specific action items to the proposed TS SRs reduction/elimination changes, the proper scope and application of certain analyses in support of the potential removal of an equipment vulnerability, and the need for any self-diagnostics employed having a means to periodically evaluate its functionality.

It was discussed that the scope of the proposed technical specification surveillance reduction change, a summary of the scope of issues that may be covered as implementation items, the boundary for component replacement, further discussion regarding the diverse actuation system (DAS), and reliability related to the architecture, and command prioritization were proposed to be discussed at a future pre-submittal meeting.

JULY 22, 2021

The July 22nd pre-submittal meeting primarily focused on the licensee providing an update on the VOP and lifecycle phase, the DAS, and a discussion of the proposed elimination of an equipment vulnerability as part of the D3 analyses. The licensee provided an update on lifecycle activities and the proposed submittal schedule. The NRC staff provided some key messages regarding the proposed submittal:

- The Turkey Point amendment request will be the first-of a kind in terms of scope, technology, and relatively new alternate review process.
- The licensee has requested a 12-month review to support implementation during the Spring 2023 outage.
- The technical review staff considers the schedule aggressive due to (1) larger size and complexity of the design change than has reviewed previously, (2) review time of the specific analyses, design approaches, and design activities associated with the configuration and the topical report platform selected by Turkey Point, and (3) the necessity of briefing the Advisory Committee for Reactor Safeguards (ACRS); and (4) potential competing resources in implementing NRC inspections in parallel with the license review (i.e., same staff)
- The staff feels that 15 months, at best, is a more reasonable schedule given the above considerations.
- The NRC staff will perform an in-depth review and provide a more accurate estimate, when the application is submitted as part of its acceptance review.
- Maintaining current on the lifecycle schedule will be critical in allowing the NRC staff to support the NRC staff's review schedule.

The NRC staff questioned the scope of licensee inspection/audit activities as it relates to their subcontractors. The licensee indicated that those activities are primarily in the cybersecurity portion, will not necessarily be conducted under their Appendix B to 10 CFR Part 50 program, but are intended to be conducted consistent with NRC guidance in Regulatory Guide 5.71, "Cyber Security Programs for Nuclear Facilities." The engineering change process (ECP) was discussed. The NRC staff questioned where the change/oversight requirements will be captured and whether the VOP will contain that information. The licensee indicated that a discussion of the interface between the VOP and ECP will be provided in the VOP summary and an additional review will be conducted to determine whether additional detail needs to be

added to the VOP summary. The NRC discussed obtaining a better understanding of the change control process to the VOP and how the licensee intends to determine the significance of a proposed change.

The NRC staff indicated the desire to better understand the scope of the VOP summary. Some critical characteristics the NRC staff was interested in are the relevant change control, and the document review and acceptance processes.

In the closed session, the potential for the proposed change to affect certain design bases event (DBE) related functions were discussed. The licensee described the review of all the relevant events and how they identified the affected functions. Additionally, the appropriateness of the use of an aging management related analyses to support the elimination of an equipment vulnerability was discussed. The NRC staff commented that the licensee should be mindful of the scope of the NRC staff's review and approval to determine whether that approval is consistent with the licensee's intended use.

It was discussed that the status of analyses and the use of self-diagnostics related to the proposed TS SRs reduction/elimination change, the human factors engineering aspects, including a review of the style guide and related manual actions, and the scope of DBEs that may need to be reviewed to support the D3 were proposed to be discussed at a future pre-submittal meeting.

One member of the public was in attendance during the open session on June 9, 2021. No Public Meeting Feedback forms were received. Questions asked by the public during the June 9th session were answered during the session.

Please direct any inquiries to me at 301-415-2315, or eva.brown@nrc.gov.

/RA/

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Office of Nuclear Reactor Regulation

Docket Nos.: 50-250 and 50-251

Enclosure: List of Attendees

cc w/enclosure: Listserv

PARTICIPANT LIST FOR PRE-APPLICATION MEETING WITH
NEXTERA-FLORIDA POWER AND LIGHT
TO DISCUSS PENDING SUBMITTALS
RELATED TO DIGITAL INSTRUMENTATION AND CONTROLS AND
JUNE 9 AND JULY 22, 2021

U.S. Nuclear Regulatory Commission

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Justin Vazquez*
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Ted Quinn
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John Hefler*
Carl Fisher**
Phil Opsal**
Ron LeGrand**
Brian Haynes
Jack Nowakowski**
Mike Matchinis**
John McCaque
William Maher

Public

Thomas Saporito*

* June 9th only

** July 22nd only

SUBJECT: SUMMARY OF PRE-APPLICATION MEETINGS WITH FLORIDA POWER AND LIGHT CONCERNING A PROPOSED DIGITAL INSTRUMENTATION AND CONTROL UPGRADE ON TURKEY POINT UNITS 3 AND 4 (EPID L-2021-LRM-0007) DATE: NOVEMBER 23, 2021

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**ADAMS Accession Nos.: Meeting Notice: ML21148A172 and ML21193A141
Meeting Summary: ML21246A021
Handouts: ML21159A171, ML21159A189,
ML21200A156, and ML21200A147**

* via e-mail

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DATE	9/7/21	9/7/21	10/5/21	11/23/21

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