



October 31, 2023
L-2023-156
10 CFR 50.90

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington D C 20555-0001

RE: Turkey Point Nuclear Generating Station, Units 3 and 4
Docket Nos. 50-250 and 50-251
Subsequent Renewed Facility Operating Licenses DPR-31 and DPR-41

Supplement to Response to Request for Additional Information Regarding License
Amendment Request No. 276, Revise Fire Protection Program in Support of Reactor
Coolant Pump Seal Replacement Project

References:

1. License Amendment Request No. 276, Revise Fire Protection Program in Support of Reactor Coolant Pump Seal Replacement Project, dated August 26, 2022 (ADAMS Accession No. ML22243A161)
2. NRC electronic memorandum dated August 14, 2023, Request for Additional Information – Turkey Point RCP Seal LAR (ADAMS Accession No. ML23226A075)
3. Response to Requests for Additional Information Regarding License Amendment Request No. 276, Revise Fire Protection Program in Support of Reactor Coolant Pump Seal Replacement Project, dated August 25, 2023 (ADAMS Accession No. ML23240A153)

In Reference 1 Florida Power & Light Company (FPL) submitted license amendment request 276 for Turkey Point Nuclear Generating Station, Units 3 and 4 (Turkey Point). The NRC requested additional information deemed necessary to complete its review in Reference 2. In Reference 3, FPL provided the requested information. After further consideration, FPL is offering supplemental information to one of the responses provided in Reference 3, specifically Request for Additional Information (RAI) 11.

Enclosure 1 provides FPL's supplemental information for RAI 11

The information included in this supplement provides additional information that clarifies the application, does not expand the scope of the application as originally noticed, and should not change the NRC staff's originally proposed no significant hazards consideration determination as published in the *Federal Register*.

This letter contains no new regulatory commitments.

Should you have any questions regarding this submittal, please contact Mr. Kenneth Mack, Fleet Licensing Manager at 561-904-3635.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 31st day of October 2023.

Sincerely,

A handwritten signature in black ink, appearing to read "Dianne Strand", is written over a horizontal line.

Dianne Strand
General Manager, Regulatory Affairs
Florida Power & Light Company

Enclosure

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Generating Station
USNRC Senior Resident Inspector, Turkey Point Nuclear Generating Station
Mr. Clark Eldredge, Florida Department of Health

Supplement to Response to Request for Additional Information (RAI)

Turkey Point Nuclear Plant Unit 3 and Unit 4
License Amendment Request, Revise Fire Protection Program in Support of Reactor Coolant
Pump Seal Replacement Project

ENCLOSURE 1

(1 page follows)

Supplemental to Response to Request for Additional Information (RAI)

Turkey Point Nuclear Plant Unit 3 and Unit 4
License Amendment Request, Revise Fire Protection Program in Support of Reactor Coolant
Pump Seal Replacement Project

In response to RAI-11 regarding a loss of seal cooling event, the operator response would be to:

- Manually trip the reactor
- Manually trip the RCPs
- Stabilize plant conditions
- Prepare for RCS cooldown via natural circulation
- Commence natural circulation RCS cooldown

This operator response requires that a multitude of procedure steps be completed within numerous procedures including annunciator response procedures, off-normal operating procedures and emergency operating procedures. Depending on the actual plant conditions and the procedural flow path required, anywhere from 30 to 45 minutes would be required before getting to the procedural step for initiating a controlled RCS natural circulation cooldown. During the controlled natural circulation cooldown of the RCS, the RCS temperature is gradually reduced at a rate that is well within Technical Specification limits; generally, at a rate of approximately 50°F per hour.

While the above operator response is taking place, the hot reactor coolant from the RCS cold leg begins to flow upward through the RCP, into the RCP seal housing, and through the No. 1 seal. The reactor coolant flashes after flowing through the No. 1 seal, but its temperature remains well above the actuation temperature of the PSDS. The time required for reactor coolant to reach the downstream side of the No. 1 seal and actuate the PSDS is dependent upon the initial No. 1 seal leak rate; a low initial leak rate will extend the PSDS actuation time while a high initial leak rate will shorten the PSDS actuation time. Even if the No. 1 seals were operating at their lowest leakage limit, the PSDS would actuate prior to any significant reduction in the RCS cold leg temperature that occurred from the commencement of the controlled natural circulation cooldown. Therefore, the operator actions taken to initiate a controlled natural circulation cooldown will not affect or delay PSDS actuation.

Operator actions other than commencing a controlled RCS natural circulation cooldown can take place while recovering from a loss of seal cooling which may have an adverse effect on a PSDS that has already actuated (e.g., the restart of an RCP). To account for this potential, the applicable Turkey Point procedures will be revised to include cautions for checking the status of PSDS actuation prior to taking such actions.