October 26, 2020

L-2020-152

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

Re: Turkey Point Unit 3 and Unit 4
Docket Nos. 50-250 and 50-251
Flooding Focused Evaluation-Summary of Commitment Revisions for Flooding Protection Features Planned Changes

References:

1. NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012, ADAMS Accession Number ML12056A046.
2. FPL Letter, L-2014-087, Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flood Hazard Reevaluations for Recommendation 2.1, dated March 11, 2013, ADAMS Accession Number ML13095A216.
3. NRC Letter, Turkey Point Nuclear Generating, Unit Nos. 3 and 4 - Staff Assessment of Response to Title 10 CFR 50.54(f), Information Request –Flood Causing Mechanism Reevaluation (TAC NOS MF1114 and MF1115)," dated December 4, 2014, ADAMS Accession Number ML14324A816.
4. NRC Letter, Turkey Point Nuclear Generating, Unit Nos. 3 and 4 –Supplement to Staff Assessment of Response to 10 CFR 50.54(f) Information Request-Flood-Causing Mechanisms Reevaluation (CAC Nos. MF1114 and MF1115), dated November 4, 2015, ADAMS Accession Number ML15301A200.
5. NRC Staff Requirements Memoranda to COMSECY-14-0037, "Integration of Mitigating Strategies for Beyond Design-Basis External Events and Reevaluation of Flooding Hazards," dated March 30, 2015.
6. NRC Letter, Coordination of Requests for Information Regarding Flooding Hazard Reevaluations and Mitigating Strategies for Beyond-Design-Basis External Events, dated September 1, 2015.
7. NEI 16-05, Revision 1, External Flooding Assessment Guidelines, dated June 2016, ADAMS Accession Number ML16165A178.

8. U.S. Nuclear Regulatory Commission, JLD-ISG-2016-01, Guidance for Activities Related to Near-Term Task Force Recommendation 2.1, Flood Hazard Reevaluation; Focused Evaluation and Integrated Assessment, Revision 0, dated July 11, 2016, ADAMS Accession Number, ML16162A439.

9. FPL Letter, L-2017-124, Flooding Focused Evaluation Summary, dated June 29, 2017, ADAMS Accession Number ML17212B180.

10. FPL Letter L-2019-125, Flooding Protection Features Planned Changes Implementation Plan Commitment Update Notification, dated June 27, 2019, ADAMS Accession Number ML 19204A179

On March 12, 2012, the NRC issued Reference 1 to request information associated with Near Term Task Force (NTTF) Recommendation 2.1 for Flooding. Enclosure 2 of Reference 1 requested that licensees reevaluate flood hazards using present day methods and regulatory guidance and to submit the Flood Hazard Reevaluation Report (FHRR). For Turkey Point Units 3 and 4, the FHRR was submitted on March 11, 2013, Reference 2, and supplemented by FPL letters dated January 31, 2014, February 26, 2014, and April 25, 2014, and August 7, 2014, ADAMS Accession Numbers ML14055A365, ML14073A065, ML14149A479 and ML14234A085, respectively. The NRC Staff completed its review as documented in the Staff Assessment, Reference 3, and in the Supplement of the Staff Assessment, Reference 4.

Following the Commission's directive to NRC Staff in Reference 5, the NRC issued a letter to industry (Reference 6) indicating that new guidance is being prepared to replace instructions in Reference 5 and provide for a "graded approach to flooding reevaluations" and "more focused evaluations of local intense precipitation and available physical margin in lieu of proceeding to an integrated assessment."

NEI prepared the new "External Flooding Assessment Guidelines" in NEI 16-05 (Reference 7), which was endorsed by the NRC in Reference 8. NEI 16-05 indicates that each flood-causing mechanism not bounded by the design basis flood (using only stillwater and/or wind-wave runup level) should follow one of the following five assessment paths:

- Path 1: Demonstrate Flood Mechanism is Bounded Through Improve Realism
- Path 2: Demonstrate Effective Flood Protection
- Path 3: Demonstrate a Feasible Response to LIP
- Path 4: Demonstrate Effective Mitigation
- Path 5: Scenario Based Approach

Non-bounded flood-causing mechanisms in Paths 1, 2, or 3 would only require a Focused Evaluation (FE) to complete the actions related to external flooding required by the March 12, 2012 10 CFR 50.54(f) letter. Mechanisms in Paths 4 or 5 require an Integrated Assessment

Turkey Point Units 3 and 4 followed Path 2, Demonstrate Effective Flood Protection, in accordance with NEI 16-05, Rev. 1, and utilized Appendices B and C to that document for guidance on evaluating the site strategy.

On June 29, 2017, FPL submitted the Flooding Focused Evaluation for Turkey Point Units 3 and 4 (Reference 9), which included a list of planned changes (Reference 9, Table 2) to be implemented to ensure adequate Available Physical Margin (APM) and reliability of flood protection features credited for the reevaluated levels during a Probable Maximum Storm Surge (PMSS). The planned changes included changes to the manholes and conduit penetrations, which support the Local Intense Precipitation (LIP).

Based on the discussions with NRC Staff on May 22, 2019, FPL submitted a commitment revision letter L-2019-125, dated June 27, 2017 (Reference 10) to update the implementation plan for completing the flood protection features planned changes (Reference 9, Table 2).

The purpose of this letter is to provide an update to the planned changes as a result of the more efficient design modifications than those previously proposed for these flooding protection features. The commitments were evaluated and revised using the guidance provided in NEI 99-04, Guidelines for Managing NRC Commitment Changes. The enclosure to this letter provides the revised commitments (Reference 9, Table 2) delineating the corresponding justification for the design modifications and the related references for each revised flooding protection feature.

Should you have any questions regarding this submittal, please contact Mr. Robert J. Hess, Turkey Point Licensing Manager, at 305-246-4112.

Sincerely,

Robert J. Hess
Licensing Manager
Turkey Point Nuclear Plant

Enclosure

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Senior Resident Inspector, Turkey Point Nuclear Plant

Enclosure to L-2020-152

Turkey Point Units 3 and 4

Flooding Focused Evaluation Summary of Commitment Revisions for the Flooding Protection Features Planned Changes

Item	Flooding Protection Feature (Reference 9)	Planned Changes (Reference 9, Table 2) Original Commitment (Tracked via condition report AR 01977483-03)	Revised	Revised Commitment	Justification	Implementation Complete Due Date
1	Jersey Barriers	Install a removable 4 ft concrete block barrier at Stoplogs 1, 2, 16, 17, 18, 19, 20, 21, 22, 23, 24, SL-1, SL-2, and SL-4.	Yes	Install a permanent stronger/taller reinforced concrete wall. Modify stoplogs 1 and 2 to withstand full loading conditions as new wall. Qualify stoplogs 16, 17, 18, 19, 20, 21, 22, 23, 24, SL-1, SL-2, and SL-4 by analysis to withstand the same loading conditions as the new wall.	New loading conditions for flood barrier features were established during development of EC294356 for maximum bounding flood level hydrostatic and hydrodynamics loads resulting from beyond design basis flooding in response to NRC 50.54 (f), that included consideration of 100-year postulated sea level rise and hurricane wind loads. • Stoplogs 1 and 2 were redesigned to withstand full loading conditions such that placement of Jersey Barrier is not required. These stoplogs are integral to the new reinforced concrete flood barrier wall described in Item 2 below. • Stoplogs 16, 17, 18, 19, 20, 21, 22, 23, 24, SL-1, SL-2, and SL-4 were qualified by analysis to withstand the same loading conditions and didn't require modification. As such, removable Jersey Barrier placement is not required. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-20-002, Rev 1, "Design of North & South Turbine Building Flood Walls" • Calculation PTN-BOHC-14-001, Rev 2, "Evaluation of Stop Logs for Flooding Integrated Assessment"	06/01/21
2	Flood Barrier Wall	Replace the existing CMU wall with a stronger/taller CMU wall.	Yes	Replace the existing CMU wall with a stronger/taller reinforced concrete wall.	A new four-foot tall reinforced concrete wall was constructed along the north and south flood barrier perimeter to replace the existing two-foot tall CMU wall. Use of reinforced concrete in lieu of a CMU allowed for easier construction while also providing greater strength. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-20-002, Rev 1, "Design of North & South Turbine Building Flood Walls"	06/01/21
3	Stoplogs	Add additional weld metal to Stoplogs 16-22.	Yes	Qualify stoplogs 16-22 by analysis to withstand the same loading conditions as the new wall.	Stoplogs 16-22 were qualified by analysis to withstand the same loading conditions and didn't require modification. As such no weld metal is added to stoplogs 16-22. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-14-001, Rev 2, "Evaluation of Stop Logs for Flooding Integrated Assessment"	06/01/21

Item	Flooding Protection Feature (Reference 9)	Planned Changes (Reference 9, Table 2) Original Commitment (Tracked via condition report AR 01977483-03)	Revised	Revised Commitment	Justification	Implementation Complete Due Date
4	Stoplogs	Add reinforcing stiffeners to Stoplogs 16-24.	Yes	Qualify stoplogs 16-24 by analysis to withstand the same loading conditions as the new wall.	Stoplogs 16-24 were qualified by analysis to withstand the same loading conditions and didn't require modification. As such no reinforcing stiffeners were added to stoplogs 16-24. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-14-001, Rev 2, "Evaluation of Stop Logs for Flooding Integrated Assessment"	06/01/21
5	Stoplogs	Replace existing anchors on Stoplogs 23 and 24 with higher capacity mechanical/epoxy anchors.	Yes	Qualify stoplogs 23 and 24 by analysis to withstand the same loading conditions as the new wall.	Stoplogs 23 and 24 and associated anchorage were qualified by analysis to withstand the same loading conditions and didn't require modification. As such, replacement of the anchors was not necessary. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-14-001, Rev 2, "Evaluation of Stop Logs for Flooding Integrated Assessment"	06/01/21
6	Stoplogs	Reinforce the CMU flood wall with rebar around Stoplogs 1 and 15.	Yes	Modify stoplogs 1 and 15 to withstand full loading conditions as the new wall.	Stoplogs 1 and 15 are integral to the new reinforced concrete flood barrier wall installed per Item 2 above. The new wall and associate stop logs have been modified to withstand full loading conditions. Reference: • EC294356 Attachment 3, "Flood Loading Summary due to Fukushima Flooding for South Mod-4/5 and North Mod-4/5 Walls and East Mod Walls" • Calculation PTN-BOHC-20-002, Rev 1, "Design of North & south Turbine Building Flood Walls"	06/01/21
7	Stoplogs	Caulk/seal the identified Stoplogs before a flooding event.	No	N/A	N/A	06/01/21
8	Drain Plug	Procure a new 12 in. drain plug rated for at least 10 ft of back pressure.	No	N/A	N/A	06/01/21
9	Manholes	Install watertight sealing solution on the 23 manholes identified in NEE016-PR-001.	No	N/A	N/A	06/01/21
10	Conduit Penetrations	Install watertight seals on the 209 conduits identified in the Flooding Hazards Modifications	No	N/A	N/A	06/01/21