December 19, 2022

L-2022-188
10 CFR 50.4
10 CFR 50.36.b
EPP 4.1

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

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Environmental Protection Plan Report
Event Date: November 20, 2022
Unusual or Important Environmental Event - Turtle Mortality

On November 20, 2022, a deceased juvenile green sea turtle (Chelonia mydas) was recovered from the St. Lucie Plant intake cooling canal. A necropsy was performed with results provided to Florida Power & Light (FPL) on November 28, 2022. The determination is that the mortality was causal to plant operations.

The attached report is being submitted pursuant to the requirements of Section 4.1 of the St. Lucie Units 1 and 2 Environmental Protection Plans.

If you should have any questions, please contact Vince Munné at 772-263-2847.

Sincerely,

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

Attachment

cc: FDEP Siting Office
Audra Livergood, National Marine Fisheries Service
Briana Grange, Biologist, U.S. Nuclear Regulatory Commission
Meghan Koperski, Florida Fish and Wildlife Conservation Commission

DESCRIPTION OF THE EVENT

On November 20, 2022, a deceased juvenile green sea turtle (Chelonia mydas) was recovered from the St. Lucie Plant 1B2 Intake well. The sea turtle was sent to Nancy S. Mettee, DVM for necropsy.

The necropsy was indeterminate on causality due to the advanced state of decomposition.

The limits for green sea turtle injuries and mortalities resulting from plant operations have not been exceeded.

CAUSE OF EVENT

Due to advanced decomposition and loss of all soft tissue, the exact cause of death could not be determined; however, due to the location of the turtle retrieval, and its condition, the prevailing consensus between Inwater Research Group and the supporting agencies (Fish and Wildlife Commission) was that causality was due to plant operations.

CORRECTIVE ACTION

The five-inch turtle net was inspected by staff biologists directly after the mortality. No issues were identified that could have contributed to the mortality. Additionally, FPL dive contractor Underwater Engineering Services Inc. inspected the net to evaluate any net anomalies; none were discovered. Hourly inspections of the five-inch net are performed during daylight hours, as well as constant surveillance of the two tangle nets that are deployed east of the five-inch turtle net. A biologist also inspects the net daily at 2200 hours to evaluate net condition and determine intrusion rates of biota that could impact net health.

ACTIONS TO PRECLUDE FUTURE EVENTS

Aggressive turtle monitoring and removal protocols remain in place; hourly inspections of the five-inch net and constant observations on the tangle nets occur during daylight hours. When visibility allows staff biologists perform hand and dip net turtle captures in an effort to minimize turtle residence time. Plant Intake Wells are inspected 4 times/day to look for marine life. The action threshold for net cleaning have been lowered, thus the net is generally kept free of accumulated debris that could impact sea turtles.

AGIENCES NOTIFIED

The Florida Fish and Wildlife Conservation Commission was notified on November 29, 2022 in accordance with Marine Turtle Permit MTP-125 and the Site Environmental Protection Plan. A notification was made to the NRC on November 29, 2022 per the requirements of 10 CFR 50.72(b)(2)(xi).