FEB 2 7 2020

L-2020-028
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: February 08, 2020
Unusual or Important Environmental Event

On February 08, 2020 a lethargic subadult female green sea turtle (Chelonia mydas) was captured on the east side of the St. Lucie Plant Intake cooling canal five-inch barrier net. The turtle's health was immediately assessed and transported to a rehabilitation facility. The turtle died on the way to the rehabilitation facility. A necropsy was performed February 08, 2020. The necropsy determined that the mortality was causally related to plant operation.

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 to provide the descriptions of the sea turtle event.

Sincerely,

Wyatt Godes
Licensing Manager
St. Lucie Plant

WG/rcs

Attachment

cc: FDEP Siting Office

Event Date: February 08, 2020
Unusual or Important Environmental Event

DESCRIPTION OF THE EVENT
On February 08, 2020 St Lucie Plant biologists observed a subadult female green turtle (Chelonia mydas) become impinged on the primary five-inch barrier net. Biologists immediately responded and assessed the turtle's health. The turtle exhibited very poor health that required rehabilitation. The turtle was lethargic and struggling to breath.

The turtle had an extremely high load of marine leeches and leech eggs across the entire external surface of its body and shell. There was a high number of leeches and eggs in the turtle's eyes, with large numbers of leeches in the nostrils. The turtle also had a severe load of fibropapilloma tumors, a disease characterized by external tumors of the skin.

The staff biologists immediately implemented protocols to transport the turtle to a rehabilitation facility for treatment. The turtle died on the way to the rehabilitation facility. The sea turtle was then transported to Nancy S. Mettee, DVM for necropsy. The necropsy determined that the mortality was due to forced submergence, thus causal to plant operations.

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

CAUSE OF EVENT
While the leech infestation could have impacted breathing, and the fibropapilloma tumors could have restricted movement and feeding, the post mortem examination identified evidence of drowning. Therefore, the mortality was determined to be causal to plant activity due to forced submergence.

The most probable cause of the mortality is that the turtle was entrained in the plant's intake cooling system at the end of a breath cycle. The time required to traverse the intake pipe exceeded the turtle's air reserve.

CORRECTIVE ACTION
No issues were identified with the five-inch that could have contributed to the mortality. Hourly inspections of the five-inch net are performed during daylight hours, as well as constant surveillance of the tangle nets that are deployed east of the five-inch turtle net.

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.

AGIENCES NOTIFIED
The Florida Fish and Wildlife Conservation Commission was notified on February 12, 2020 in accordance with Marine Turtle Permit# MTP-125 and the Site Environmental Protection Plan. A notification was made to the NRC on on February 12, 2020 per the requirements of 10 CFR 50.72(b) (2)(xi).