



JUN 04 2019

L-2019-115  
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 Dates: May 11, 2019 and May 13, 2019  
Unusual or Important Environmental Events

On May 11, 2019 a healthy olive ridley sea turtle (*Lepidochelys olivacea*) was recovered from the St. Lucie Plant intake cooling canal. The turtle was tagged and released unharmed per approved sea turtle protocol and with concurrence from the Florida Fish and Wildlife Conservation Commission (FWCC). Olive ridley sea turtles are not normally found in the North Atlantic, making this capture an unusual occurrence.

On May 13, 2019 a dead female sub-adult loggerhead sea turtle (*Caretta caretta*) was recovered near the suction port of the St. Lucie Plant intake cooling canal mangrove irrigation pump. A necropsy was completed on May 14, 2019. The necropsy determined that the mortality was causally related to station 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 events.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Snyder'.

Michael J. Snyder  
Licensing Manager  
St. Lucie Plant

MJS/rcs

Attachment

cc: FDEP Siting Office

#### DESCRIPTION OF THE OLIVE RIDLEY EVENT

On May 11, 2019 a healthy olive ridley sea turtle (*Lepidochelys olivacea*) was recovered from the St. Lucie Plant intake cooling canal. The turtle was tagged and released unharmed per approved sea turtle protocol and with concurrence from the Florida Fish and Wildlife Conservation Commission (FWCC), so no corrective actions are required.

Olive ridley sea turtles are not normally found in the North Atlantic, making this capture an unusual occurrence. The St. Lucie Plant Biological Opinion does not include an incidental take statement (ITS) permitting the capture or taking of olive ridleys. Therefore, this olive ridley event has initiated a consultation between the NRC and the National Marine Fisheries Service (NMFS) regarding the potential for future olive ridley takes at the St. Lucie Plant.

#### DESCRIPTION OF THE SEA TURTLE MORTALITY EVENT

On May 13, 2019 a dead female sub-adult loggerhead sea turtle (*Caretta caretta*) was recovered near the suction port of the St. Lucie Plant intake cooling canal mangrove irrigation pump. The sea turtle was sent to Nancy S. Mettee, DVM for necropsy on May 13, 2019. The necropsy was completed on May 14, 2019 and determined that the mortality was causally related to station operation due to forced submersion.

#### CAUSE OF THE EVENT

It is apparent that the turtle positioned itself in a manner that caused it to become stuck on the suction end of the mangrove pump with the inability to dislodge itself. This event is uncommon if not rare as this was the first mortality of this nature that has occurred since the construction of the plant and with over 18,000 total captures. Before this event, the mangrove irrigation pump suction was considered to be an insignificant risk to nearby turtles.

#### CORRECTIVE ACTIONS

The mangrove irrigation pump was shut off until a modified cover could be designed, constructed, and installed on the pump suction pipe. A three foot long curved screen was installed over the suction end of the pipe that eliminated flat surfaces and exposes only short-radius curved surfaces. This significantly reduced the suction force at the end of the pipe.

#### ACTIONS TO PRECLUDE FUTURE EVENTS

The new curved screen cover is designed to create a benign interface with the pipe and sea turtles, as well as other marine life. The modified suction pipe and its curved screen cover will be monitored daily until such time that the positive effects of the adaptor can be determined via observed interactions with marine life.

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#### AGIENCES NOTIFIED

Regarding the olive ridley, the FWCC was contacted on May 11, 2019 in accordance with Marine Turtle Permit MTP-125 and the Site Environmental Protection Plan. A notification was made to the NRC on May 14, 2019 per the requirements of Section 4.1 of the St. Lucie Units 1 and 2 Environmental Protection Plans to promptly report the unusual occurrence of a protected species.

Regarding the sea turtle mortality, the FWCC was contacted on May 13, 2019 in accordance with Marine Turtle Permit MTP-125 and the Site Environmental Protection Plan. Causality determination was deferred to the necropsy. The FWCC was updated on May 14, 2019 once the necropsy determined that the mortality was causal to plant operation. A notification was made to the NRC on May 14, 2019 per the requirements of 10 CFR 50.72(b)(2)(xi).