



January 18, 2018

L-2018-016  
10 CFR 50.4  
10 CFR 50.36.b  
EPP 4.1

U.S. 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: January 4, 2018  
Unusual or Important Environmental Event - Turtle Mortality

On January 4, 2018, a dead juvenile green sea turtle (*Chelonia mydas*) was recovered from the east side of the St. Lucie Plant intake cooling canal eight-inch barrier net. A necropsy was performed that same day and determined cause of the mortality to be drowning.

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 description of a reportable sea turtle mortality.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Snyder', is written over a white background.

Michael J. Snyder  
Licensing Manager  
St. Lucie Plant

MJS/rcs

Attachment

cc: FDEP Siting Office

#### DESCRIPTION OF THE EVENT

On January 4, 2018, a dead juvenile green sea turtle (*Chelonia mydas*) was recovered from the east side of the St. Lucie Plant intake canal eight-inch turtle barrier net. The sea turtle was sent to Nancy S. Mettee, DVM for necropsy. The necropsy determined that the mortality was due to drowning.

The limits for sea turtle injuries and mortalities resulting from plant operations were set by the National Marine Fisheries Incidental Take Statement, issued by the NRC in 2016. These limits have not been exceeded.

#### CAUSE OF EVENT

While the ultimate cause of the mortality was drowning, contributing causal factors were that the turtle was underweight with fat reserves depleted and water temperature was acutely lower at the time due to a cold front. The contributing causal factors resulted in the turtle being in a weakened cold-stunned condition.

#### CORRECTIVE ACTION

The eight-inch and five-inch turtle nets were immediately inspected by staff biologists directly after discovery of the turtle. No additional issues were identified with the net that could have contributed to the mortality. Hourly inspections of the five-inch net continue during daylight hours as well as constant surveillance of the intake canal's two tangle nets. The inspection frequency was increased between the five-inch and eight-inch nets.

#### ACTIONS TO PRECLUDE FUTURE EVENTS

The inspection frequency was increased between the five-inch and eight-inch nets. Aggressive turtle monitoring and removal protocols remain in place. Hourly inspections of the five-inch net and continuous surveillance of the intake canal's two 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.

#### AGENCIES NOTIFIED

The Florida Fish and Wildlife Conservation Commission was notified on January 4, 2018, in accordance with Marine Turtle Permit MTP-125 and the Site Environmental Protection Plan.

A notification was made to the NRC on January 4, 2018, per the requirements of 10 CFR 50.72(b) (2) (xi).