



August 11, 2011

L-2011-321
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: August 1, 2011
Unusual or Important Environmental Event – Turtle Mortality

On August 1, 2011, a dead juvenile green sea turtle (*Chelonia Mydas*) was recovered from the east side of the St. Lucie plant intake cooling canal five-inch turtle barrier net. A gross necropsy was performed on August 1, 2011 and determined that the compromised physical state of the sea turtle may have caused or contributed to the mortality; however, the mortality will remain classified as causal to plant operations until a more detailed analysis clarifies the cause of death.

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 that was causal to plant operations at the St. Lucie Plant.

Sincerely,

Eric S. Katzman
Licensing Manager
St. Lucie Plant

ESK/kdr

Attachment

IE 23
NRR

DESCRIPTION OF THE EVENT

On August 1, 2011 a dead juvenile green sea turtle (*Chelonia mydas*) was recovered from the east side of the St. Lucie Plant Intake Canal five-inch turtle barrier net. The mortality appeared to be from drowning, and thus was determined to be causal to plant operations. The sea turtle was sent to the Loggerhead Marinelife Center located in Juno Beach, Fl. for a necropsy that same day.

The gross necropsy revealed that the health of the sea turtle was extremely compromised prior to death. The physical state of the sea turtle may have caused the mortality or was a significant contributing factor. This mortality will remain classified as causal to plant operations until a more detailed analysis, a histopathology, clarifies the cause of death.

The limits for sea turtle injuries and mortalities resulting from plant operations were set by the National Marine Fisheries Incidental Take Statement, issued and clarified by the NRC in 2001. These limits have not been exceeded.

CAUSE OF EVENT

The probable cause of death was the entrainment of the sea turtle in the plant intake water cooling system at end of a breath cycle. The travel time to traverse the intake pipe most likely exceeded the turtle's air reserve. The weak physical condition of the turtle as defined in the gross necropsy may have been a contributing factor.

CORRECTIVE ACTIONS

The five-inch turtle barrier net was inspected by staff biologists, no irregularities were identified. The biologists also inspected the area east of the barrier net to identify and capture any at risk sea turtles, none were identified.

ACTIONS TO PRECLUDE FUTURE EVENTS

An aggressive campaign to either dip net or hand capture entrained sea turtles continues at St. Lucie in the area east of the five-inch barrier net. This effort significantly reduces the residence time of sea turtles in the canal, thus reducing their risk.

AGENCIES NOTIFIED

The Florida Fish and Wildlife Conservation Commission were notified of this event on August 1, 2011 in accordance with marine permit #125 and the Site Environmental Protection Plan.

A notification was made to the NRC on August 1, 2011 per the requirements of 10 CFR 50.72(b)(2)(xi).