



Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

January 07, 2009

L-2009-006  
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: December 9, 2008  
Unusual or Important Environmental Event – Turtle Mortality

On December 9, 2008, 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 12-10-2008, and determined that drowning was the most likely cause of the mortality.

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,

A handwritten signature in black ink, appearing to read 'Eric S. Katzman'.

Eric S. Katzman  
Licensing Manager  
St. Lucie Plant

ESK/CAA

Attachment

IE23  
NRR

### DESCRIPTION OF THE EVENT

On December 9, 2008, 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 12-10-2008, and determined that drowning is the most likely cause of the mortality. Post gross necropsy, the remains of the sea turtle will undergo a pathology tissue analysis to determine if there are additional factors that could have contributed to the turtle's death.

This is the second mortality attributed to St. Lucie plant operations in 2008. 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 THE EVENT

The probable cause of death was the entrainment of the sea turtle in the plant cooling water intake system just prior to requiring a breathing cycle. The travel time to traverse the intake pipe most likely exceeded the turtle's air reserve which resulted in its drowning.

### CORRECTIVE ACTIONS

- 1) The 5-inch turtle barrier net, and the additional weighted nets used to capture turtles were examined after the event, and determined to be free of any items that could entangle marine life.
- 2) Daily canal surveillances continue to determine the population of resident sea turtles to support their removal.

### ACTIONS TO PRECLUDE FUTURE EVENTS

In order to reduce the overall risk to the resident juvenile sea turtle population, the staff biologists continue to support boat surveillances in the area east of the 5-inch turtle barrier net to identify candidates for removal.

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AGENCIES NOTIFIED

The Florida Fish and Wildlife Conservation Commission was notified of this event on December 9, 2008, in compliance with marine permit # 125 and the Site Environmental Protection Plan.

A notification was made to the NRC on December 9, 2008, per the requirements of 10 CFR 50.72 (b)(2)(xi).