



August 9, 2005

L-2005-174  
10 CFR 50.36b  
EPP 4.1

US 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: July 10, 2005  
Unusual or Important Environmental Event

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 causally related to plant operations at the St. Lucie Plant.

Very truly yours,

A handwritten signature in black ink, appearing to read "WJ", is written over the typed name.

William Jefferson, Jr.  
Vice President  
St. Lucie Plant

WJ/GRM

JE23

### EVENT DESCRIPTION

At approximately 1230 hours on July 9, 2005, an adult male green turtle was captured by tangle nets east of the primary barrier net. The turtle had severe lacerations to the right eye incurred during transit through one of the intake pipes. The turtle was sent to the Marine Life Center in Juno Beach for rehabilitation after consultation with personnel from Florida Fish and Wildlife Conservation Commission. On July 10, 2005, this turtle died and a necropsy was performed. The cause of death was determined to be from a subdural hematoma resulting from the severe injury to the right eye.

This is the first mortality this year at the St. Lucie power plant that can be attributed to plant operation. It is the third injury this year that was causal to plant operation. The limits for injuries/mortalities of these species, resulting from plant operation, were set by the National Marine Fisheries Service Incidental Take Statement issued and clarified by the NRC in 2001. These limits have currently not been exceeded.

### CAUSE OF EVENT

The mortality of this green turtle was caused by severe lacerations and trauma to the right eye resulting from being entrained through one of the plant's intake pipes. Since 2000, there has been an upward trend in the number of turtles negatively impacted during transit through the intake pipes into the cooling canal system. While minor scrapes may typically be incurred during entrainment and are recognized under the most recent Biological Opinion issued by the National Marine Fisheries Service, an increase in severity of injuries may indicate that bio-fouling or obstructions in the intake pipe have become more pronounced. The three causal events this year were caused during transit through the intake pipes.

### CORRECTIVE ACTIONS

1. FPL engineering is currently evaluating and preparing an inspection plan for the intake cooling water piping. This inspection plan will be complete and an inspection schedule developed by September 30, 2005. Other potential corrective actions will be determined following the performance of the internal piping inspections.
2. As an additional long-term corrective action, FPL will evaluate potential modifications to reduce the number of sea turtles entering the station's intake cooling water system. This evaluation will be complete by June 1, 2007.

### AGENCIES NOTIFIED

The Florida Fish and Wildlife Conservation Commission was notified of this event on July 9, 2005, in compliance with Marine Turtle Permit #125.

Follow-up notifications was made to the NRC on July 9, 2005, per the requirements of 10CFR 50.72(b)(2)(vi).