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SUBJECT: Forwards description of reportable unusual occurrence of West Indian manatee (endangered species) in intake canal at St Lucie Plant, Unit 2, on 971214.

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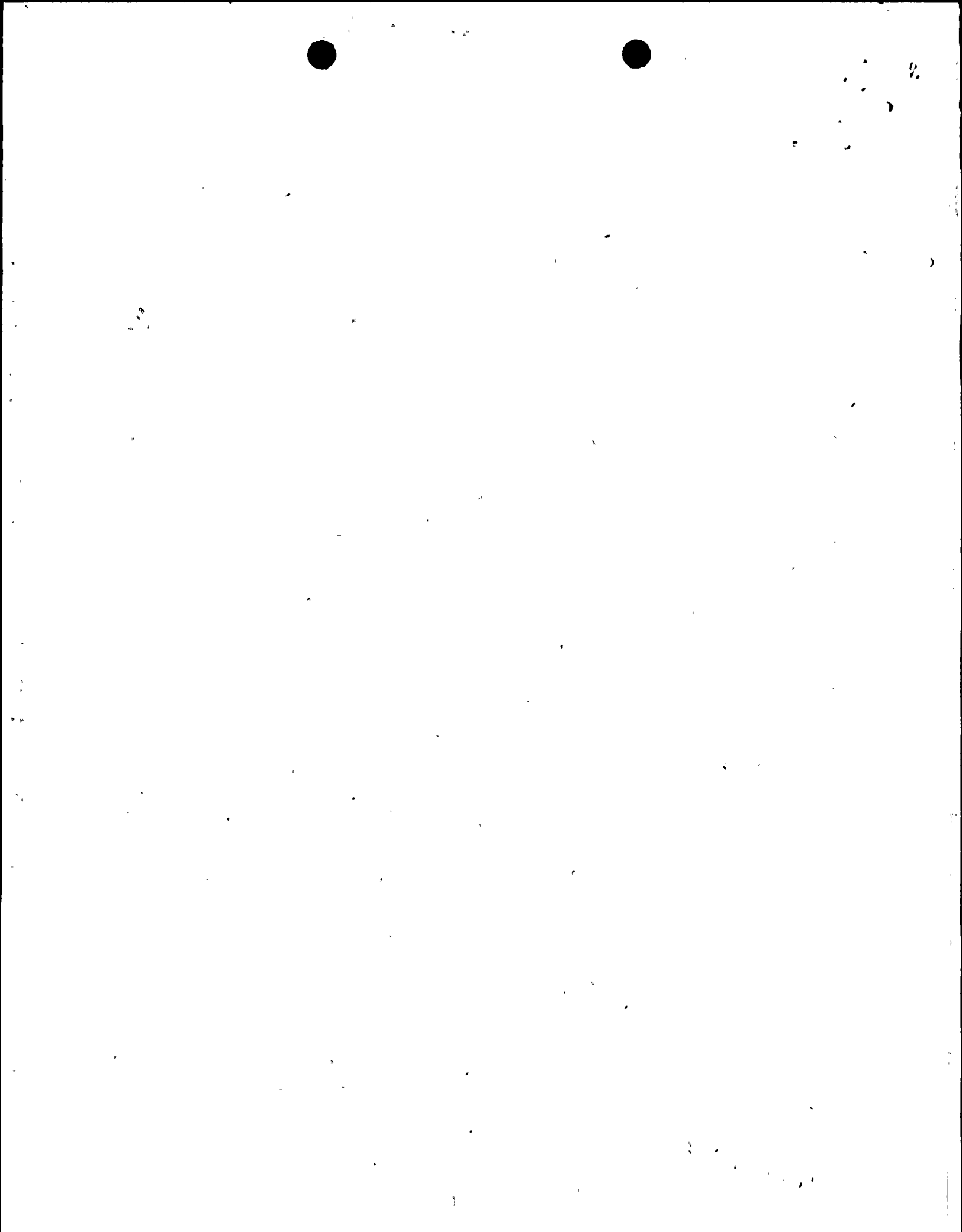
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January 8, 1998

L-98-3
10CFR50.36(b)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: St. Lucie Units 1 and 2
Docket No. 50-335 and 50-389
Environmental Protection Plan Report
Date of Event: December 14, 1997
West Indian Manatee in the Intake Canal
Unusual or Important Environmental Event

The attached report is being submitted pursuant to the requirements of Section 4.1 of the St. Lucie Unit 2 Environmental Protection Plan to provide a description of a reportable unusual occurrence of a West Indian manatee (endangered species) in the intake canal at the St. Lucie Plant.

Very truly yours,

J. A. Stall
Vice President
St. Lucie Plant

JAS/GRM

Attachment

cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, St. Lucie Plant

Handwritten note: 1-22-98

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Entrainment of a West Indian Manatee in the St. Lucie Intake Canal

EVENT DATE: December 14, 1997

EVENT DESCRIPTION:

A male West Indian manatee, 7 feet - 10 inches in length and weighing about 500 pounds, was discovered partially entangled in one of the sea turtle capture nets at approximately 1515 hours on December 14, 1997. The manatee freed itself from the net with assistance from one of the St. Lucie Plant sea turtle capture specialists. The manatee appeared to be in good condition and continued swimming in the east end of the intake canal.

At the time of the manatee sighting, all applicable reporting procedures were followed by plant personnel. At the request of Florida Department of Environmental Protection (FDEP), the turtle capture nets were removed from the canal to prevent entanglement of the manatee. On December 15, 1997, FDEP requested FPL to assist their contractor, Sea world, when capturing the animal. FDEP's contractor arrived on site at 1115 hours, the animal was captured, and loaded on a truck by 1300 hours. FDEP examined the manatee and based on its excellent condition, the determination was made to release the manatee into Big Mud Creek on the west side of the plant. The release effort was completed at 1330 hours.

The manatee entered the canal through one of the three ocean intake pipes. The cause of the event is that the concrete velocity caps that form the inlets to the ocean intake pipes have large openings to allow an unrestricted flow path for cooling water into the plant and no physical barrier to the entry of marine life into the canal system. The intent of the design was to create an enlarged entry area for the water flowing into the pipes. This would reduce the velocity encountered by marine life coming into the immediate area of the ocean inlets and decrease the possibility of their entrapment. The design also took into account the fact that marine life, upon feeling the increasing flow velocity as they neared the ocean inlet under the cap, would be startled by changing flow and leave the vicinity of the velocity caps. Although manatees do not usually inhabit the ocean, their migration habits are quite varied, and they are known to occasionally use the ocean to move from one inlet to another. It is basically a matter of chance and probability that a manatee will encounter the velocity caps as it migrates. It is also known that manatees are naturally curious, and they may enter the caps because they resemble the natural features they normally investigate, such as, a reef formation or cave.

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CORRECTIVE ACTIONS TO PRECLUDE REPETITION OF THE EVENT:

Annual inspections of the caps, with the last accomplished in February 1997, show no damage to the velocity caps. Plant divers were in the vicinity of the caps on December 12, 1997, while performing intake buoy maintenance. The sea conditions were calm, and no tell tale disturbances such as, a surface vortex, were apparent to indicate a potential problem with the ocean intake cap structure. Therefore, it is highly unlikely that structural problems contributed to the entrainment of the manatee. An additional inspection of the caps will be made as soon as diving conditions permit to ensure there is no damage that could cause short circuiting of the inlet flow.

As explained above, the ocean is not the usual habitat for manatees. When they are seen off the beach, it is thought by local FDEP officials that they are traveling between the inlets while moving to other foraging sites. Since the probability of them entering the intake canal is still very small, FPL has not judged it practical to install additional barriers at the velocity caps given the costs and risks associated with such installations.

AGENCIES NOTIFIED:

The plant Land Utilization Department (LU) notified the Florida Department of Environmental Protection (FDEP) on December 14, 1997. On December 15, 1997, FPL Environmental Services Department notified the U. S. Fish and Wild Life Service of the entrainment and again upon completion of the successful capture and release. Also on December 15, 1997, the 72-hour NRC notification was made pursuant to Section 4.1 of the Environmental Protection Plan (EPP) as an unusual occurrence of any species protected by the Endangered Species Act of 1973.



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