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 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.      05000335  
       50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co.      05000389

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SUBJECT: Forwards response to Generic Ltr 89-13, "Svc Water Sys Problems Affecting Safety Related Equipment."

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JANUARY 24 1990.

L-90-28  
10 CFR 50.54 (f)

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


Gentlemen:

Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Service Water System Problems Affecting  
Safety Related Equipment - Generic Letter 89-13

Generic Letter 89-13, dated July 18, 1989, requested each licensee to confirm that the utility has established a program to implement NRC recommendations one through five of the generic letter. Provided, as an attachment, is the St. Lucie Units 1 and 2 plan and schedule for implementing the recommendations found in this generic letter.

Should there be any questions regarding this subject please contact us.

Very truly yours,

  
J. H. Goldberg  
Executive Vice President

JGH/RG/rh

Attachment

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

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**ST. LUCIE UNITS 1 AND 2  
RESPONSE TO GENERIC LETTER 89-13**

The St. Lucie Plant uses water from the Atlantic Ocean as the ultimate heat sink for the open-cycle portion (intake cooling water-ICW) of the service water system. The open-cycle system consists of two 100% capacity loops per unit with one heat exchanger per loop. Each open-cycle heat exchanger serves a 100% capacity chemically controlled closed-cycle loop (component cooling water-CCW) that in turn removes plant heat loads.

St. Lucie Plant's plan and schedule for implementing the recommendations of the NRC Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment" are as follows:

**RECOMMENDED ACTION I.**

For open-cycle service water systems, implement and maintain an ongoing program of surveillance and control techniques to significantly reduce the incidence of flow blockage problems as a result of biofouling.

Response

St. Lucie Plant presently follows the NRC recommended program to resolve Generic Issue 51 "Proposed Requirements for Improving the Reliability of Open-Cycle Service Water Systems", which includes inspecting the intake structure and piping for macroscopic biological fouling every refueling outage, cleaning, if necessary, and chlorinating the system up to the limits allowed by environmental laws. This program is implemented on both Unit 1 and Unit 2.

**RECOMMENDED ACTION II.**

Conduct a test program to verify the heat transfer capability of all safety related heat exchangers cooled by service water.

Response

- A. The St. Lucie Plant plans to perform an initial CCW heat exchanger performance test to verify that heat removal would be adequate for the system operation with the most limiting combination of flow and temperature. The initial testing will be performed both before and after regular scheduled maintenance to verify the adequacy of the current maintenance frequency and the closed-loop chemistry control program. This test will be completed prior to the end of the Fall 1991 outage for Unit 1 and the end of the Fall 1990 outage for Unit 2.



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- B. The St. Lucie Plant plans to continue a program of frequent regular maintenance for open-cycle heat exchangers in lieu of performance testing and trending. In addition, heat exchanger differential pressure will be periodically monitored to provide indication of flow blockage and heat removal capability. This program will be implemented prior to the end of the Fall 1991 outage for Unit 1 and the end of the Fall 1990 outage for Unit 2.

**RECOMMENDED ACTION III.**

Ensure by establishing a routine inspection and maintenance program for open-cycle service water system piping and components that corrosion, erosion, protective coating failure, silting, and biofouling cannot degrade the performance of the safety-related systems supplied by service water.

Response

St. Lucie Plant currently has a program that performs a 100% inspection of the ICW system piping and components. As found conditions are documented and repairs made, as required. This program is implemented on both Unit 1 and Unit 2.

**RECOMMENDED ACTION IV.**

Confirm that the service water system will perform its intended function in accordance with the licensing basis for the plant.

Response

St. Lucie Plant plans to perform reviews and inspections of the ICW and CCW systems to document that they perform as described in the Final Safety Analysis Report (FSAR). These inspections and reviews will be completed prior to the end of the Fall 1991 outage for Unit 1 and the end of the Fall 1990 outage for Unit 2.

**RECOMMENDED ACTION V.**

Confirm that maintenance practices, operating and emergency procedures, and training that involves the service water system are adequate to ensure that safety related equipment cooled by the service water system will function as intended and that operators of this equipment will perform effectively.

Response

A review to assure the adequacy of maintenance practices, operating and emergency procedures and training involving service water systems will be completed prior to the end of the Fall 1991 outage for Unit 1 and the end of the Fall 1990 outage for Unit 2.

STATE OF FLORIDA            )  
  ) ss.  
COUNTY OF PALM BEACH )

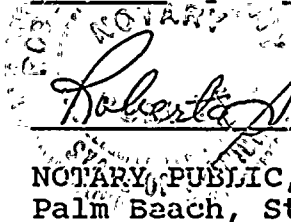
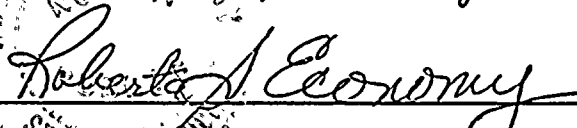
J. H. Goldberg being first duly sworn, deposes and says:

That he is Executive Vice President, of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

  
\_\_\_\_\_  
J. H. Goldberg

Subscribed and sworn to before me this  
25 day of January, 1990.

  
  
\_\_\_\_\_  
NOTARY PUBLIC, in and for the County of  
Palm Beach, State of Florida

My Commission expires \_\_\_\_\_  
Notary Public, State of Florida  
My Commission Expires June 1, 1993  
Bonded Thru Troy Fain - Insurance Inc.

