

# The Light company

Houston Lighting & Power

South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

May 15, 1991

ST-HL-AE-3761

File No.: G03.08

10CFR50.54(f)

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

South Texas Project Electric Generating Station  
Units 1 and 2

Docket Nos. STN 50-498, STN 50-499

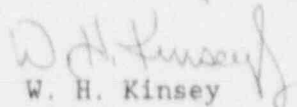
Supplemental Response to NRC Generic Letter 89-13,

"Service Water System Problems Affecting Safety-Related Equipment"

- References:
- 1) G. E. Vaughn, HL&P, to NRC Document Control Desk, January 29, 1990 (ST-HL-AE-3341)
  - 2) W. H. Kinsey, HL&P, to NRC Document Control Desk, March 27, 1991 (ST-HL-AE-3720)
  - 3) W. H. Kinsey, HL&P, to NRC Document Control Desk, April 3, 1991 (ST-HL-AE-3701)
  - 4) NRC Inspection Report (50-498/91-06; 50-499/91-06) dated March 4, 1991

As requested in NRC Generic Letter 89-13, Houston Lighting & Power Company (HL&P) submits the attached status of implementation of recommended actions at the South Texas Project Electric Generating Station (STPEGS). The STPEGS program for ensuring operability of the Essential Cooling Water System was previously described in reference (1). That response was subsequently corrected in reference (2), and the implementation schedule was updated in reference (3). References 2 and 3 were submitted in response to findings which resulted from an NRC inspection at STPEGS (Ref. 4).

If you should have any questions on this matter, please contact either Mr. P. L. Walker at (512) 972-8392 or me at (512) 972-7921.

  
W. H. Kinsey  
Vice President,  
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PLW/amp

Attachment

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\* Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company  
South Texas Project Electric Generating Station

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In the Matter

Docket Nos. 50-498  
50-499

AFFIDAVIT

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Vice President, Nuclear Operations

STATE OF TEXAS

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My Commission Expires 1-13-93

GLB\91-112.001

South Texas Project Electric Generating Station  
Supplemental Response to NRC Generic Letter 89-13,  
"Service Water System Problems Affecting Safety-Related Equipment"

- 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

During the recent STPEGS Unit 1 refueling outage, all three Essential Cooling Water (ECW) pump bays were dewatered and inspected for macroscopic biofouling, sediment, and corrosion. No indications of biological macrofouling were observed.

Plant procedures have been revised so that flow testing of ECW heat exchangers is required if they have been left idle for extended periods. Cleaning and/or flushing may be performed should the flow test not be satisfactory.

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

Response

Procedure OPEP07-EW-0001, "Performance Test for ECW Heat Exchangers", has been revised. This procedure, in conjunction with other procedures, meets the recommendations of Generic Letter 89-13, Enclosure 2.

The Unit 1 ECW heat exchangers were tested during the recent refueling outage. They will be tested again during the next two refueling outages. The final testing frequency will be determined by heat exchanger test results and data taken from a model ECW side stream heat exchanger.

The exception to the above is the ECW heat exchangers for the Component Cooling Water System. As noted in reference (2), the heat exchangers could not be tested during the recent outage. Testing will be performed during the next three refueling outages. The test frequency can be modified accordingly after the third test. Regardless, the interval between tests will be no greater than five years.

- 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.

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Response

The STPEGS preventive maintenance program meets the requirements of this recommended action for the Essential Cooling Water System. As noted in reference (4), the routine inspection and preventive maintenance programs were reviewed by the NRC and found satisfactory, with the exception discussed below. Generic Letter 89-13 is specifically referenced in procedure OPMP02-ZG-0008, "PM Development".

As noted in reference (4), biofouling controls were observed to be effective, with satisfactory inspections to detect biofouling being performed. However, a weakness was noted in regard to absence of procedural guidance for conducting the biofouling inspection activity. Inspection procedures for biofouling are currently under development. The approved procedures will be followed in subsequent inspections.

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

Response

As stated in HL&P's original response (Ref. 1) as modified by Ref. 2, HL&P performed an inhouse safety system functional inspection (SSFI) to assess the operational readiness of the STPEGS ECW system. A walkdown of the Unit 1 ECW system was performed during the SSFI to verify the details of equipment installation. The SSFI concluded that the ECW system will be able to perform its safety function.

As stated in reference (1), to confirm effectiveness of configuration control on the Component Cooling Water (CCW) System, HL&P was to walkdown one train of the Unit 1 CCW against the appropriate design documents prior to startup after the third refueling of Unit 1. Walkdowns of the other trains and the Unit 2 CCW system would be performed if any significant generic discrepancies were discovered. All three trains were walked down to confirm effectiveness of configuration control, and no significant generic deficiencies were observed.

- 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.

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Response

Procedures for ECW and CCW operation and the maintenance procedures specific to ECW and CCW components have been reviewed. Discrepancies found in operating procedures were of no significance to safety.

Maintenance practices involving service water systems are adequate to ensure that safety-related equipment cooled by the service water will function as intended.