

# The Light company

Houston Lighting & Power

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May 31, 1988  
ST-HL-AE-2649  
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 & 2  
Docket Nos. STN 50-498, STN 50-499  
Response to Generic Letter 88-03  
Resolution of Generic Safety Issue 93,  
"Steam Binding of Auxiliary Feedwater Pumps"

Reference: Response to IEB 85-01, "Steam Binding of Auxiliary Feedwater Pumps," J. H. Goldberg, HL&P; Letter to Robert D. Martin, NRC; October 28, 1986, ST-HL-AE-1703.

Pursuant to 10CFR50.54(f), Houston Lighting & Power Company (HL&P) provides the following response to Generic Letter 88-03, "Resolution of Generic Safety Issue 93, 'Steam Binding of Auxiliary Feedwater Pumps'". The issue concerns the potential disabling of auxiliary feedwater (AFW) pumps by steam binding that is caused by backleakage past the isolation check valves downstream of the AFW pumps. HL&P has previously addressed this concern in response to IE Bulletin 85-01 (Reference 1).

The South Texas Project Electric Generating Station (STPEGS) AFW system contains design features that reduce the potential for steam binding to occur. The STPEGS AFW system consists of four independent trains that are normally not cross-connected. This eliminates the potential for steam binding affecting more than one train from a single event. In addition, two check valves and one normally closed motor-operated stop check valve are located in each AFW line between the AFW pumps and the steam generators. Each AFW line is provided with a cross-connect to the Main Feedwater System. This pathway includes one check valve, a normally closed motor-operated stop check valve, and a normally closed flow control valve. When the cross-connect is in use (for low-load and filling operations), each pathway includes one check valve and one normally closed motor-operated stop check valve.

NL.88.127.01

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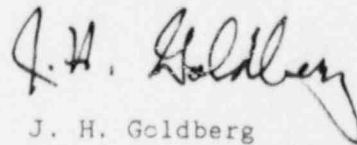
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To further reduce the probability of AFW pump failure as a consequence of steam binding if backleakage occurs, HL&P has implemented a method for monitoring AFW piping temperatures for indication of possible backleakage. A thermocouple, located in the AFW piping between the check valve nearest the AFW pump and the normally closed motor-operated stop check valve, provides temperature data to the Emergency Response Facilities Data Acquisition and Display System (ERFDADS). An alarm is included with a setpoint of 200°F. In the event the ERFDADS alarm indicates AFW pump discharge header temperature greater than 200°F, operating procedures address local monitoring of the affected pump and associated piping, and purging the affected piping.

As requested by Generic Letter 88-03, this response confirms that monitoring equipment to detect conditions favorable to the formation of auxiliary feedwater pump steam binding and procedures to restore the AFW system to operable status should steam binding occur are in place and will be maintained.

If you should have any questions on this matter, please contact Mr. M. A. McBurnett at (512) 972-8530.



J. H. Goldberg  
Group Vice President, Nuclear

JHG/PLW/lis

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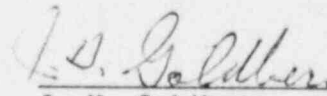
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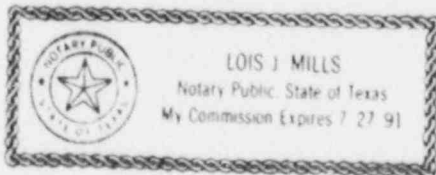
In the Matter	)	
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Houston Lighting & Power	)	Docket Nos. 50-498
Company, et al.,	)	50-499
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South Texas Project	)	
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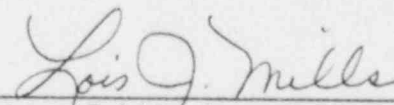
AFFIDAVIT

J. H. Goldberg being duly sworn, hereby deposes and says that he is Group Vice President, Nuclear of Houston Lighting & Power Company; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the attached response to NRC Generic Letter 88-03; is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge and belief.

  
\_\_\_\_\_  
J. H. Goldberg  
Group Vice President, Nuclear

Subscribed and sworn to before me, a Notary Public in and for The State of Texas this 31<sup>st</sup> day of *May*, 1988.



  
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Notary Public in and for the  
State of Texas