

# The Light company

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

February 25, 1982  
ST-HL-AE-785  
SFN: V-0530

Mr. John T. Collins  
Regional Administrator, Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Dr., Suite 1000  
Arlington, Texas 76012



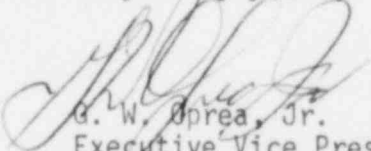
Dear Mr. Collins:

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
First Interim Report Concerning the Westinghouse  
Steam Generator Tube Rupture Analysis

On January 19, 1982, Houston Lighting & Power Company (HL&P), pursuant to 10CFR50.55(e), notified your office of an item concerning the existing Steam Generator Tube Rupture (SGTR) analysis which was performed by Westinghouse (W). Please find attached our first interim report on this subject. The next report concerning this item will be submitted to your office by May 26, 1982.

If you should have any questions concerning this item, please contact Mr. Michael E. Powell at (713) 676-8592.

Very truly yours,

  
G. W. Oprea, Jr.  
Executive Vice President

MEP/blt  
Attachment

IE-27  
5/11

Houston Lighting & Power Company

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(Lowenstein, Newman, Reis, & Axelrad)

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STP RMS

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Revision Date 2-22-82

First Interim Report Concerning  
the Westinghouse Steam Generator  
Tube Rupture Analysis

On January 19, 1982, Houston Lighting & Power Company (HL&P), pursuant to 10CFR50.55(e), notified your office of an item concerning the Steam Generator Tube Rupture (SGTR) analysis which was performed by Westinghouse (W) and is referenced in FSAR Section 15.6.3.

The accident scenario in question is the SGTR (complete severance of one (1) tube) concurrent with a loss of offsite power. The existing FSAR Section 15.6.3.2 indicates that the break flow from the primary side to the secondary side can be terminated within thirty (30) minutes after initiation of the accident. The mechanism used to terminate the break flow is the depressurization of the primary side to a pressure less than or equal to the set pressure of the Main Steam safety valves.

The analysis assumes you can depressurize the primary side. This can be accomplished by either (1) utilizing normal pressurizer spray, (2) utilizing auxiliary pressurizer spray or (3) utilizing the Pressurizer Powered Operated Relief Valves (PORV's).

For the scenario of a loss of offsite power condition, the RCP's will not be running and therefore normal pressurizer spray is not available. Use of the auxiliary pressurizer spray and the pressurizer PORV's requires use of air operated valves. A loss of offsite power would result in the loss of air to these valves rendering them inoperable. In order to account for this possibility, W has interface criteria requiring the capability to manually load the instrument air compressor on a redundant emergency power supply. Powering the instrument air compressors from an emergency power supply allows operation of the valves required for depressurization of the primary side within the time frame established in the FSAR SGTR analysis.

The present South Texas Project (STP) design does not have the capability to power the instrument air compressor from the redundant Class 1E emergency power supply. STP design does have the capability to power the instrument air compressors on a non Class 1E BOP diesel that is used primarily for equipment protection. However, since STP does not have a redundant emergency power supply to support the operation of the instrument air system, further analysis is necessary to evaluate what modifications, if any, will be implemented.