

The Light company

Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

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

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498; STN 50-499
Inspection of Bottom Mounted Instrumentation
NRC Bulletin 88-09
"Thimble Tube Thinning in Westinghouse Reactors"

Reference: Correspondence from Mr. S. L. Rosen to the Document Control Desk, dated July 25, 1991 (ST-HL-AE-3780)

The referenced correspondence committed South Texas Project to perform Bottom Mounted Instrumentation inspections for Unit 2 during the fourth refueling outage. This letter provides the results of the recent inspection for Unit 2.

During the fourth refueling outage for Unit 2, the eddy current inspection of the Unit 2 Bottom Mounted Instrumentation flux thimble tubes revealed detectable wear from 12% to 72% wall loss on 47 of the 58 thimble tubes. No detectable defects were found on the remaining 11 thimble tubes. The minimum wall loss that the eddy current technique is capable of accurately detecting is ten percent. The total Unit 2 thimble tube operating time from installation in 1988 until the start of the fourth refueling outage was 240 weeks. The operating time is based on the amount of time the thimble tubes are subjected to flow from 3 or 4 reactor coolant pumps.

The maximum acceptable wear value is 80 percent wall loss. This acceptance criteria was developed by Westinghouse in WCAP-12866 ("BMI Flux Thimble Wear"; January 1991) and was discussed in the referenced letter. Since all Unit 2 thimble tubes met the acceptance criteria, no thimble tubes were removed from service.

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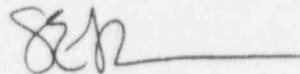
GLB-95\5234 Project Manager on Behalf of the Participants in the South Texas Project
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Twelve of the Unit 2 thimble tubes were repositioned to resolve the as found wear conditions. These thimble tubes were shortened by 2.5 inches to place fresh thimble tube material in the area that is subject to wear. The decision to reposition thimble tubes was based on the goal of not having any thimble tubes in operation with a known wear spot that was projected to exceed the 80% wear value prior to the next Unit 2 refueling outage. A projected wear rate based on the maximum thimble tube wear rate observed to date was used. Thimble tubes with greater than 50 percent wall loss were repositioned.

The next inspection of Unit 2 Bottom Mounted Instrumentation thimble tubes is planned for the next (fifth) refueling outage scheduled for Spring, 1997. The next inspection of Unit 1 Bottom Mounted Instrumentation thimble tubes is now planned for the next refueling outage (sixth) scheduled for Spring, 1996. Scheduling of other future inspections for both Unit 1 and Unit 2 will be based on the results of the inspections during the respective upcoming refueling outages.

If you should have any questions, please contact Mr. W. E. Schulz (512) 972-8724 or me at (512) 972-7162.



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