

The Light company

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June 17, 1983
ST-HL-AE-965
File Number: G9.17/C11.1

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington D.C. 20555

Dear Mr. Denton:

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Pipe Break Design Considerations

Houston Lighting & Power Company has followed with interest the activities of the Nuclear Regulatory Commission Staff and nuclear industry on the general question of load combinations and pipe break design basis. In particular, it is noted that the Staff has expressed a very positive intent to modify the criteria for considering double-ended pipe breaks in primary coolant piping for nuclear steam supply systems of the type incorporated in the South Texas Project (STP). NRC and industry discussions with the ACRS Subcommittee on Load Combinations on March 29th have provided strong indications of general agreement that there would be a net safety benefit from the deletion of whip restraints and other provisions currently incorporated in plants to accommodate, mechanistically, the effects of postulated double-ended pipe breaks.

Houston Lighting & Power Company concurs with the NRC technical staff and nuclear industry position that provisions for mechanistic double-ended pipe breaks in the primary coolant loop and many other locations in the plant provide no identifiable safety benefit and in many cases have a negative safety impact. In all cases these design provisions are complex and costly and hamper access for operation, maintenance and inspection.

On the South Texas Project many of these restraints have been designed and fabricated. The Project schedule and budget provide fully for their installation. Installation of primary coolant loop pipe whip restraints for Unit 1 is scheduled to begin in the immediate future.

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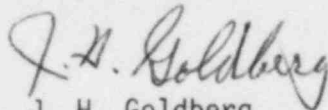
It is understood that within the next few months, and certainly prior to the scheduled completion of construction for Unit 1, the Commission will have adopted the changes necessary to permit elimination of primary coolant pipe breaks. Criteria to permit selective elimination of breaks at other locations in nuclear class piping systems may also be forthcoming in the near future.

The objective of this letter is to obtain NRC guidance regarding the following issues:

1. Elimination of double-ended breaks in Reactor Coolant Loop (RCL) piping by leak-before-break criteria.
2. Elimination of double-ended breaks in piping in systems other than the RCL by leak-before-break criteria.
3. Elimination of all intermediate break postulations arbitrarily selected although otherwise meeting defined stress criteria.

In view of the status of the project, HL&P would welcome NRC advice on how to proceed to take advantage of the new technical information available regarding pipe break consistent with NRC activities to change regulatory criteria. We, therefore, suggest that a meeting with members of your staff may be the appropriate forum for obtaining that guidance in a timely manner. We will contact Mr. H. Schierling, the Licensing Project Manager for STP, to arrange such a meeting if acceptable to the NRC.

Very truly yours,



J. H. Goldberg
Vice President
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LJK/mg

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Washington, D. C. 20555

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