



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

January 21, 1992

Docket Nos. 50-498
and 50-499

Mr. Donald P. Hall
Group Vice-President, Director
Houston Lighting & Power Company
P. O. Box 1700
Houston, Texas 77251

Dear Mr. Hall:

SUBJECT: PROBABILISTIC SAFETY ASSESSMENT, SOUTH TEXAS PROJECT, UNITS 1 AND 2
(TAC NOS M73009 AND M73010)

By letter dated April 14, 1989, (ST-HL-AE-3059), Houston Lighting & Power Company (HL&P) submitted the South Texas Project Probabilistic Safety Assessment Summary Report. In that letter, HL&P informed the NRC staff that the Probabilistic Safety Assessment (PSA) would be used as a basis for proposing certain changes to the plants' Technical Specifications. Consequently the staff requested a copy of the PSA which was submitted by letter dated June 15, 1989 (ST-HL-AE-3137).

We, along with technical assistance from our contractor, Sandia National Laboratories, have evaluated the models and results for the internal events and internal fire analysis portions of the PSA. We have concluded that the PSA is a state-of-the-art Level 1 risk assessment. While the staff review identified both modeling optimism and pessimism in the PSA, they had a negligible impact on the overall estimate of core damage frequency of $1.7E-4$ per reactor-year. Further, our review indicates that there is no unique outlier that contributes significantly (a single sequence exceeding well above $1E-4$ per reactor-year) to the overall mean core damage frequency at the South Texas Project (STP).

With regard to our review of the fire analysis, we conclude that fires in areas outside the control room contribute less than one percent to the overall core damage frequency. The fire risk for the STP control rooms is an order of magnitude less than that found in the analysis for other plants. While a sensitivity study showed that the severity factor assignments are a function of postulated fire size, the fire risk in the STP control room is not significantly increased by assuming a more conservative fire size.

The results of our review of the internal events and fire analysis are contained in the enclosed Safety Evaluation with the attached supporting Technical Evaluation Report, "A Review of the South Texas Project

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Probabilistic Safety Analysis for Accident Frequency Estimates and Containment Binning," (NUREG/CR-5606) prepared by our contractor, Sandia National Laboratories. The external events portion of the PSA continues under staff review. Upon completion, the results will be provided to you by a separate Safety Evaluation.

Sincerely,

Original Signed By
George F. Dick, Jr., Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosure:
Safety Evaluation

cc w/enclosure:
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no significant objection
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