

The Light company

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

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10CFR50 App. J

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

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Short Duration Integrated Leak Rate Test

Houston Lighting & Power Company (HL&P) requests permission to perform short duration Integrated Leak Rate Tests (ILRTs) to satisfy the requirements of Technical Specification 4.6.1.2.a and 10CFR50 Appendix J. The length of the short duration ILRTs will be based on the Absolute Method described in Bechtel Corporation's Topical Report BN-TOP-1, Revision 1. The test duration of ILRTs performed using the Mass Point Method will remain at least 24 hours.

There is no engineering or scientific reason for a minimum leak test duration of 24 hours. Several industry reports have been prepared and submitted to the NRC justifying a minimum test period of 6 hours. The test should be concluded when an Upper Confidence Limit (UCL) of less than 0.75 times the maximum allowable leakage rate (L_a) is obtained (allowing for addition of applicable local leak rates).

Appendix J of 10CFR50 cites ANSI N45.4 as the standard to perform ILRTs. This standard states that:

"The leakage-rate test period, for any method, shall extend to 24 h of retained internal pressure. If it can be demonstrated to the satisfaction of those responsible for the acceptance of the containment structure that the leakage rate can be accurately determined during a shorter test period, the agreed-upon shorter period may be used".

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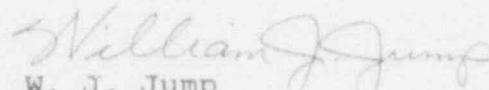
In addition, current industry reports are establishing test periods of considerably less than 24 hours. EPRI Report NP-2726 "Containment Integrated Leak Rate Testing Improvements" recommends:

"ILRT Duration. After a test period of at least six hours, the ILRT should be concluded when the UCL (leak rate +95% confidence interval) is sufficiently below 0.75 L_a to allow for the addition of any applicable local leak rates."

The NRC has approved Bechtel Corporation's Topical Report BN-TOP-1, Revision 1, which has similar testing requirements. These industry reports draw on the results of numerous ILRTs to justify that 6 hours is an adequate test period to demonstrate containment leak tightness.

STP requests permission from the NRC to conduct short time duration ILRTs in compliance with 10CFR Appendix J, Plant Technical Specifications and BN-TOP-1, Revision 1. No revision is required to Plant Technical Specifications or to the UFSAR.

If you have any questions concerning this matter, please contact Mr. A. W. Harrison at (512) 972-7298.


W. J. Jump
Manager,
Nuclear Licensing

MAB/lf

CC:

Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

George Dick, Project Manager
U.S. Nuclear Regulatory Commission
Washington, DC 20555

J. I. Tapia
Senior Resident Inspector
c/c U. S. Nuclear Regulatory
Commission
P. O. Box 910
Bay City, TX 77414

J. R. Newman, Esquire
Newman & Moltzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

D. E. Ward/T. M. Puckett
Central Power and Light Company
P. O. Box 2121
Corpus Christi, TX 78403

J. C. Lanier/M. B. Lee
City of Austin
Electric Utility Department
P.O. Box 1088
Austin, TX 78767

K. J. Fiedler/M. T. Hardt
City Public Service Board
P. O. Box 1771
San Antonio, TX 78296

Rufus S. Scott
Associate General Counsel
Houston Lighting & Power Company
P. O. Box 61867
Houston, TX 77208

INPO
Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339-3064

Dr. Joseph M. Hendrie
50 Bellport Lane
Bellport, NY 11710

D. K. Lacker
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

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