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

June 27, 1996
ST-HL-AE-5411
File No.: G20.02.01
10 CFR 50.90,
10 CFR 50.92,
10 CFR 51

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

South Texas Project
Units 1 & 2
Docket No. STN 50-498 and STN 50-499
Unit 1 and Unit 2 Technical Specifications 3.7.4, 3.7.14, 3/4.8.1, and 6.8.3

References:
1. Letter from T. H. Cloninger to the NRC Document Control Desk dated May 1, 1995 (ST-HL-AE-5076)
2. Letter from T. H. Cloninger to the NRC Document Control Desk dated August 28, 1995 (ST-HL-AE-5141)
3. Letter from T. H. Cloninger to the NRC Document Control Desk dated December 19, 1995 (ST-HL-AE-5259)

The South Texas Project revises the proposed amendment to its Operating Licenses NPF-76 and NPF-80 for the South Texas Project Electric Generating Station, Units 1 and 2 requested in the above correspondence, by incorporating the following changes to Technical Specifications 3.7.4, 3.7.14, 3/4.8.1, and 6.8.3 in lieu of the changes previously requested. The proposed changes would allow extension of the Standby Diesel Generator Allowed Outage Time to 14 days and extension of the Essential Cooling Water loop and the Essential Chilled Water loop to 7 days. The proposed change would add to Administrative Controls a description of the South Texas Project Configuration Risk Management Program (CRMP) used to assess and monitor changes in core damage probability and large early release frequency while in certain planned and unplanned maintenance configurations.

In Reference 1 updated by References 2 and 3, the South Texas Project Company proposed to amend its operating licenses by incorporating a proposed addition of Technical Specification 3.10.8. The proposed Special Test Exception would allow extension of the Standby Diesel Generator Allowed Outage Time for a cumulative 21 days on each Standby Diesel Generator once per fuel cycle. In addition, it would also extend the Allowed Outage Time on each Essential Cooling Water loop for a cumulative 7 days once per fuel cycle.

A001

Based on feedback from the Nuclear Regulatory Commission regarding the proposed Special Test Exception, the South Texas Project is submitting a revision to the previous submittals that will allow extension of the Standby Diesel Generator Allowed Outage Time for 14 days and will allow extension of the Allowed Outage Time of the Essential Cooling Water loop and the Essential Chilled Water loop for 7 days in lieu of the previously requested Special Test Exception.

The required affidavit (Attachment 1), along with a Safety Evaluation and No Significant Hazards Consideration Determination (Attachment 2) associated with the proposed changes, and the marked up affected pages of the Technical Specifications (Attachment 3) are included as attachments to this letter.

The supporting material in References 1 and 2 and the additional information regarding the proposed Special Test Exception provided by the referenced letters in Attachment 2 remain bounding for this amendment proposal except where updated in this letter. The amendment proposal provided by this letter therefore supersedes the amendment proposed in References 1 and 2.

The South Texas Project has reviewed the attached proposed amendment pursuant to 10CFR50.92 and determined that it does not involve a significant hazards consideration. In addition, the South Texas Project has determined that the proposed amendment satisfies the criteria of 10CFR51.22(c)(9) for categorical exclusion from the requirement of an environmental assessment. The South Texas Project Nuclear Safety Review Board has reviewed and approved the proposed changes.

If you should have any questions concerning this matter, please call Mr. M. A. McBurnett at (512) 972-7206 or myself at (512) 972-8787.

T. H. Cloninger
Vice President,
Nuclear Engineering

TCK/

Attachments:
1. Affidavit
2. Safety Evaluation and No Significant Hazards Consideration Determination
3. Mark-ups of Proposed Changes to Technical Specification 3.7.4, 3.7.14, 3/4.8.1, and 6.8.3.

Leonard J. Callan
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

Thomas W. Alexion
Project Manager, Mail Code 13H3
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

David P. Loveless
Sr. Resident Inspector
c/o U. S. Nuclear Regulatory Comm.
P. O. Box 910
Bay City, TX 77404-0910

J. R. Newman, Esquire
Morgan, Lewis & Bockius
1800 M Street, N.W.
Washington, DC 20036-5869

M. T. Hardt/W. C. Gunst
City Public Service
P. O. Box 1771
San Antonio, TX 78296

J. C. Lanier/M. B. Lee
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

Central Power and Light Company
ATTN: G. E. Vaughn/C. A. Johnson
P. O. Box 289, Mail Code: N5012
Wadsworth, TX 77483

Rufus S. Scott
Associate General Counsel
Houston Lighting & Power Company
P. O. Box 61067
Houston, TX 77208

Institute of Nuclear Power
Operations - Records Center
700 Galleria Parkway
Atlanta, GA 30339-5957

Dr. Joseph M. Hendrie
50 Bellport Lane
Bellport, NY 11713

Richard A. Ratliff
Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3189

U. S. Nuclear Regulatory Comm.
Attn: Document Control Desk
Washington, D. C. 20555-0001

J. R. Egan, Esquire
Egan & Associates, P.C.
2300 N Street, N.W.
Washington, D.C. 20037

J. W. Beck
Little Harbor Consultants, Inc.
44 Nichols Road
Cohassett, MA 02025-1166

ATTACHMENT 1

AFFIDAVIT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter	)	
	)	
South Texas Project, et al.,	)	Docket Nos. 50-498
	)	50-499
South Texas Project Unit 1 & 2	)	

AFFIDAVIT

I, T. H. Cloninger, being duly sworn, hereby depose and say that I am Vice President, Nuclear Engineering, of the South Texas Project; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached revision to proposed changes to Technical Specifications 3.7.4, 3.7.14, 3/4.8.1, and 6.8.3; that I am familiar with the content thereof; and that the matters set forth therein are true and correct to the best of my knowledge and belief.

T. H. Cloninger
Vice President, Nuclear Engineering

STATE OF TEXAS)
)
COUNTY OF MATAGORDA)

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 27th day of June, 1996.

Linda Rittenberry
Notary Public in and for the State of Texas

LINDA RITTENBERRY
Notary Public, State of Texas
My Commission Expires 10/9/97

ATTACHMENT 2

SAFETY EVALUATION
AND
NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION

SAFETY EVALUATION
AND
NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION

References:

1. Letter from T. H. Cloninger to the NRC Document Control Desk dated May 1, 1995 (ST-HL-AE-5076)
2. Letter from T. H. Cloninger to the NRC Document Control Desk dated August 28, 1995 (ST-HL-AE-5141)
3. Letter from D. A Leazar to the NRC Document Control Desk dated November 22, 1995 (ST-HL-AE-5208)
4. Letter from T. H. Cloninger to the NRC Document Control Desk dated December 19, 1995 (ST-HL-AE-5259)
5. Letter from D. A Leazar to the NRC Document Control Desk dated January 4, 1996 (ST-HL-AE-5261)
6. Letter from D. A Leazar to the NRC Document Control Desk dated January 8, 1996 (ST-HL-AE-5271)
7. Letter from D. A Leazar to the NRC Document Control Desk dated January 23, 1996 (ST-HL-AE-5280)

BACKGROUND

In Reference 1 updated by References 2 and 4, the South Texas Project proposed to amend its operating licenses by incorporating a proposed addition of Technical Specification 3.10.8. The proposed Special Test Exception would allow extension of the Standby Diesel Generator Allowed Outage Time for a cumulative 21 days on each Standby Diesel Generator once per fuel cycle. In addition, it would also extend the Allowed Outage Time on each Essential Cooling Water loop for a cumulative 7 days once per fuel cycle. References 3, 5, 6 and 7 provided additional information regarding the proposed Special Test Exception 3.10.8.

Based on feedback from the Nuclear Regulatory Commission regarding the proposed Special Test Exception, the South Texas Project is submitting a revision to the previous submittals that will allow extension of the Standby Diesel Generator Allowed Outage Time for 14 days and will allow extension of the Allowed Outage Time of the Essential Cooling Water loop and the Essential Chilled Water loop for 7 days in lieu of the previously requested Special Test Exception.

PROPOSED CHANGE DESCRIPTION

The proposed change will revise Technical Specification 3.8.1.1 ACTIONs b, c, and f to allow extension of the Standby Diesel Generator Allowed Outage Time from 72 hours to 14 days for one Standby Diesel Generator out of service. Technical Specification 3.8.1.1.d will also be revised to allow for continued operation for 24 hours if components in another train are out of service. Additionally, Technical Specification 3.8.1.1 Action f will be revised to allow two Standby Diesel Generators out of service for 24 hours. A footnote is added to Surveillance Requirement 4.8.1.1.2 to allow credit for events (e.g. actual loss of offsite power) that satisfy these surveillance requirements. In addition, a footnote is added to Surveillance Requirement 4.8.1.1.2.e.(1) to allow performance inspections of the Standby Diesel Generator at power that were previously required to be performed during shutdown.

The proposed change will also allow extension of the Allowed Outage Times (AOT) of the Essential Cooling Water loop (Technical Specification 3.7.4) and the Essential Chilled Water loop (Technical Specification 3.7.14) to 7 days.

An additional programmatic requirement will be added to the administrative section of the Technical Specification (6.8.3) requiring a Configuration Risk Management Program. This program will ensure the overall risk levels of plant operations are maintained within acceptable limits.

SAFETY ANALYSIS

The Technical Specification amendment proposal does not modify any plant hardware or operational procedures. It simply changes the time frame in which existing authorized activities can be performed; thus, the design basis of the plant is unaffected.

The previously docketed amendment requests justified an allowed outage of each Diesel Generator for 21 days and each Essential Cooling Train and supported systems (including Essential Chilled Water) for 7 days once each operating cycle in addition to the normal 72 hour allowed outage time. The revision proposed by this letter provides a simplified approach to the Technical Specifications by allowing longer Allowed Outage Times and recognizing that existing regulations (e.g. Maintenance Rule) will prevent the abuse of the longer limits and the proposed administrative program (Configuration Risk Management Program) will evaluate and manage the risk associated with plant configurations during these Allowed Outage Times. The total time out of service projected for the associated equipment is enveloped by that previously requested, therefore, the previously submitted deterministic and probabilistic bases remain bounding.

The STP Probabilistic Safety Assessment was re-evaluated to assess the impact of an allowed outage time of 14 days for a Diesel Generator and 7 days for a Essential Cooling Water train. This also included dependent systems: Essential Chillers, EAB HVAC, Component Cooling Water, etc. All assumptions contained in the previous 21 Day AOT were retained (Reference ST-HL-AE-5076), including that the

Configuration Risk Management Program would provide for appropriate compensatory measures such as those discussed in the previous submittals when necessary. The risk quantification for this application is based on the nominally expected out of service times described below. The South Texas Project plans to conduct the extended outages on a nominally once per train per cycle basis. It is expected the Diesel Generator work will take on the average 7 days to complete, while the Essential Cooling Water and any dependent system is expected to be completed within 5 days. While some of the AOTs will be less than these estimates, others will be slightly longer. Therefore, the average number of days used for completion is reasonable. The attached graph (Figure 1) represents the cumulative change in the Core Damage Probability for the extended Essential Cooling Water/Diesel Generator planned maintenance. As can be seen the cumulative change in risk does not exceed the 1E-6 threshold established via the Configuration Risk Management Program at the South Texas Project.

The 14/7 Day Allowed Outage Times results in an average Core Damage Frequency of 2.18E-05 per reactor year. This corresponds to 5.2% decrease in the Core Damage Frequency calculated for the previously submitted 21 Day AOT. The Large, Early Release Frequency is quantified as 4.69E-07 per reactor year which represents a decrease of 7.5% from the value calculated for the previously submitted 21 Day AOT. The Risk Achievement Worth for one Diesel Generator during the modeled configuration is 1.02 and for one train of Essential Cooling Water during the modeled configuration is 2.9. These values are consistent with the previous 21 Day Diesel Generator STE submittal (Reference ST-HL-AE-5076).

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Pursuant to 10CFR50.91, this analysis provides a determination that the proposed change to the Technical Specifications described previously, does not involve any significant hazards consideration as defined in 10CFR50.92, as described below:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The Standby Diesel Generators are not accident initiators, therefore the increase in Allowed Outage Times for this system does not increase the probability of an accident previously evaluated. The three train design of the South Texas Project ensures that even during the seven days the Essential Cooling Water loop or the Essential Chilled Water loop is inoperable there are still two complete trains available to mitigate the consequences of any accident. If the Essential Cooling Water and the Essential Chilled Water loops are operable during the 14 days the Standby Diesel Generator is inoperable, the Engineered Safety Features bus and equipment in the train associated with the inoperable Standby Diesel Generator will be operable. This ensures that all three redundant safety trains of the South Texas Project design are operable. In addition the Emergency Transformer will be available to supply the Engineered Safety Features bus normally supplied by the inoperable Standby Diesel Generator. These actions will ensure that the changes do not involve a significant increase in the consequences of previously evaluated accidents.

The addition of the Configuration Risk Management Program to the Administrative Section of the Technical Specifications does not affect current accident analyses.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes affect only the magnitude of the Standby Diesel Generator, Essential Cooling Water and the Essential Chilled Water Allowed Outage Times as identified by the marked-up Technical Specification. As indicated above, the proposed change does not involve the alteration of any equipment nor does it allow modes of operation beyond those currently allowed. Therefore, implementation of these proposed changes does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

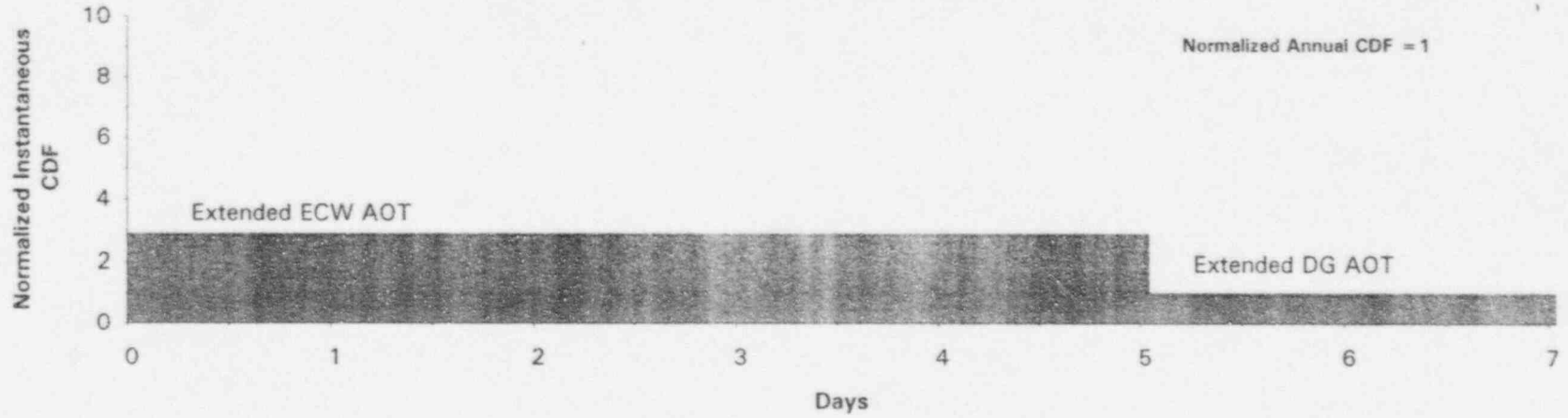
The proposed changes result in no significant increase in core damage or large early release frequencies. Three sets of PSA results have been presented to the NRC for the South Texas Project. One submitted in 1989 from the initial Level 1 PSA of internal and external events with a mean annual average CDF estimate of 1.7E-4, a second one submitted in 1992 to meet the IPE requirements from the Level 2 PSA/IPE with a CDF estimate of 4.4E-5, and an update of the PSA that was reported in the August 1993 Technical Specifications submittal with a variety of CDF estimates for different assumptions regarding the rolling maintenance profile and different combinations of modified Technical Specifications. The South Texas Project PSA was updated in March of 1995 to include the NRC approved Risk-Based AOTs and STIs, Plant Specific Data and incorporate the Emergency Transformer into the model. This update resulted in a CDF estimate of 2.07E-5 per reactor year. When the requested changes are modeled, the resulting CDF estimate is 2.18E 10-5 per reactor year. This corresponds to 5.2% decrease in the Core Damage Frequency calculated for the previously submitted 21 Day AOT. The Large, Early Release Frequency is quantified as 4.69E-07 per reactor year which represents a decrease of 7.5% from the value calculated for the previously submitted 21 Day AOT. Therefore, it is concluded that there is no significant reduction in the margin of safety.

Based on the above evaluation, the South Texas Project has concluded that these changes do not involve any significant hazards considerations.

IMPLEMENTATION SCHEDULE

The South Texas Project requests an implementation time of 30 days from the effective date of the approved license amendment to facilitate distribution and to make appropriate changes to plant documents.

Estimated Risk Profile for the Expected Planned Work Week given 14 Day DG & 7 Day ECW AOT



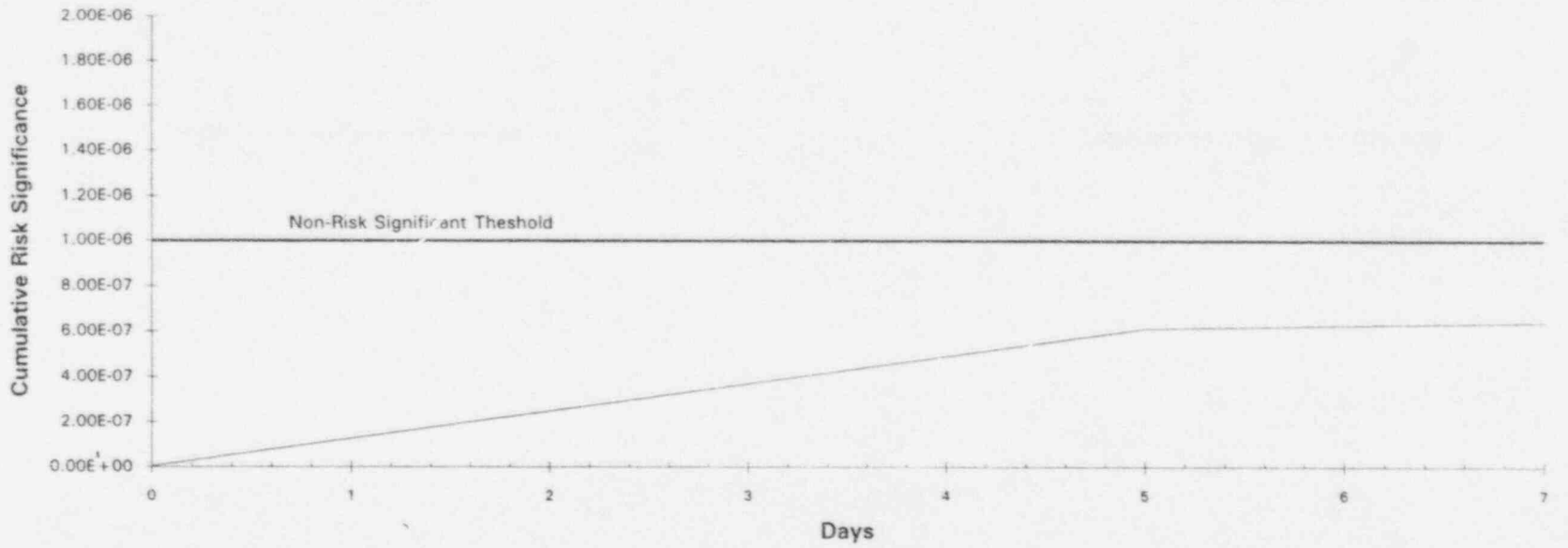


Figure 1

ATTACHMENT 3

MARK-UPS OF PROPOSED CHANGES

TO TECHNICAL SPECIFICATIONS

3.7.4, 3.7.14, 3/4.8.1, AND 6.8.3