

The Light company

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

May 1, 1995
ST-HL-AE-5076
File No.: G20.02.01
10CFR50.90,
10CFR50.92,
10CFR51

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 Specification 3.10.8

Houston Lighting & Power Company proposes to amend its Operating License NPF-76 and NPF-80 for the South Texas Project Electric Generating Station, Units 1 and 2, by incorporating the attached proposed addition of Technical Specification 3.10.8. This 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. These extended Allowed Outage Times will be used to perform required inspections and maintenance on the Standby Diesel Generators and Essential Cooling Water system during power operation.

Houston Lighting & Power has reviewed the attached proposed amendment pursuant to 10CFR50.92 and determined that it does not involve a significant hazards consideration. In addition, Houston Lighting & Power 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 Electric Generating Station Nuclear Safety Review Board has reviewed and approved the proposed changes.

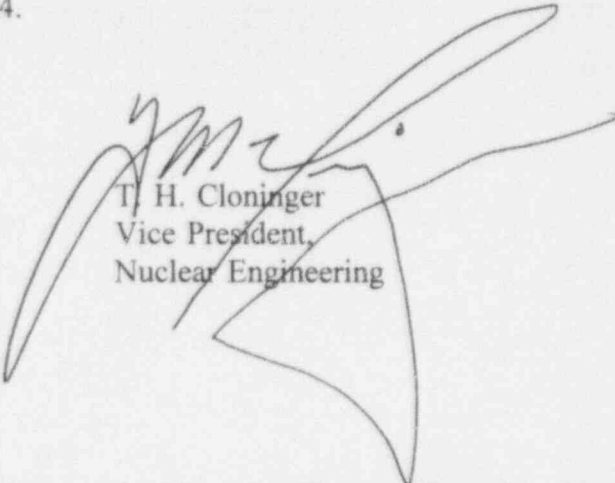
The required affidavit, along with a Safety Evaluation and No Significant Hazards Consideration Determination associated with the proposed changes, and the marked up affected pages of the Technical Specifications are included as attachments to this letter.

Houston Lighting & Power requests this amendment be approved and issued by August 1, 1995 to support the upcoming outage on Unit 2.

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Project Manager on Behalf of the Participants in the South Texas Project
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ADD 1

If you should have any questions concerning this matter, please call Mr. M. A. McBurnett at (512) 972-7206 or myself at (512) 972-8664.



T. H. Cloninger
Vice President,
Nuclear Engineering

TCK/lf

- Attachment:
1. Affidavit
 2. Safety Evaluation and No Significant Hazards Consideration Determination
 3. Mark-ups of Proposed Changes to Technical Specification 3.7.4, 3.8.1.1, 4.8.1.1.2 and 3.10.8.
 4. Evaluation of the Proposed Special Test Exception for Diesel Generator and Essential Cooling water Maintenance.

Houston Lighting & Power Company
South Texas Project Electric Generating Station

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c:

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ATTACHMENT 1

AFFIDAVIT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

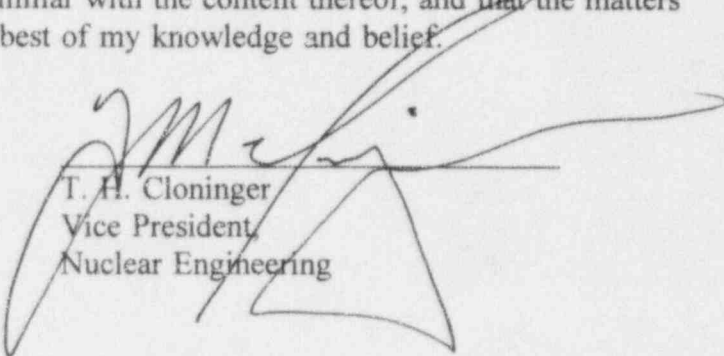
Houston Lighting & Power
Company, et al.,)

Docket Nos. 50-498 & 50-499

South Texas Project
Units 1 and 2)

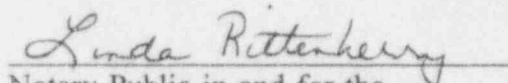
AFFIDAVIT

I, T. H. Cloninger, being duly sworn, hereby depose and say that I am Vice President, Nuclear Engineering, of Houston Lighting & Power Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached revision to proposed changes to Technical Specification 3.10.8; 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)
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Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this
1st day of May, 1995.


Notary Public in and for the
State of Texas



ATTACHMENT 2

**SAFETY EVALUATION
AND
NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION**

Background:

Houston Lighting & Power company (HL&P) requests the addition of Technical Specification (TS) 3.10.8. The purpose of this amendment is to provide a Special Test Exception that would extend the allowed outage times once per fuel cycle for the Standby Diesel Generator and the Essential Cooling Water systems at the South Texas Project Electric Generating Station.

Description of the Proposed Change:

The proposed Special Test Exception would allow a Standby Diesel Generator Allowed Outage Time for a cumulative 21 days on each Standby Diesel Generator once per fuel cycle. A footnote is added to Surveillance Requirement 4.8.1.1.2 to allow credit for events that satisfy these requirement. In addition, it would also allow an Allowed Outage Time on each Essential Cooling Water loop for a cumulative 7 days once per fuel cycle.

Safety Analysis:

The requested Technical Specification special test exception addition does not modify any plant hardware or operational procedures. It simply changes the time frame in which existing authorized activities can be performed. Consequently, the design basis of the plant is unaffected and therefore, risk-based analysis can be an appropriate decision basis.

The risk basis is anchored to the results of Houston Lighting and Power Company's (HL&P) state-of-the-art and plant-specific Probabilistic Safety Assessment (PSA) model, which has been reviewed by the Nuclear Regulatory Commission. This model was updated and extended to Level 2 standards to meet the Individual Plant Evaluation (IPE) requirements contained in Generic Letter 88-20. It was further refined and updated to provide the assessment of the risk impacts of test and maintenance activities at the South Texas Project Electric Generating Station and to provide the information requested by the Nuclear Regulatory Commission for reviewing the risk-based evaluation of Technical Specifications submitted in 1993.

The South Texas Project Electric Generating Station and the Nuclear Regulatory Commission staff mutually agreed to use South Texas Project Level 2 PSA/IPE as the baseline for the risk-based evaluation of Technical Specifications. It is now further updated and enhanced in this submittal to incorporate revision to Technical Specifications granted by the Nuclear Regulatory Commission and to incorporate plant specific failure data, and other plant features not previously included (e.g., emergency transformer). The previously reported Level 2 PSA/IPE mean core damage frequency (CDF) was found to be about $4.4\text{E-}5$ per reactor year and the mean large early release frequency (LERF) was found to be about $1\text{E-}6$ per reactor year.

This submittal is an extension of that baseline to reflect the current licensing basis at South Texas Project Electric Generating Station. The requantification of the risk-based evaluation of the Technical Specification's Special Test Exception section using the updated Level 2 PSA/IPE models has now been completed and is included in this submittal as Attachment 4.

The decision criteria used in this evaluation is to accept only those changes that do not result in a significant increase in CDF or in LERF. In addition to the proposed Special Test Exception, the planned maintenance program is being procedurally modified and is explicitly accounted for in this submittal with the intention of reducing risk levels and achieving equipment performance improvements that are cost effective. This has been demonstrated by the combined effects of maintaining at-power risk levels below that which was reported for Generic Letter 88-20 and implementing improvements in outage scheduling which will increase the overall availability of on-site power sources during shutdown conditions. The results in Section 3 of Attachment 4 show that through the combination of the proposed technical specification change, the incorporation of quantified compensatory measures, the incorporation of plant features not previously credited in the PSA, and the incorporation of plant specific data (which more closely reflects the current plant experience), there are no significant increases in CDF or LERF over those reported in the South Texas Project Level 2 PSA/IPE submission or the previous risk based evaluation of Technical Specifications. The effect of the changes would actually result in a small net decrease in CDF. The very small net increase in LERF due to the combination of these changes is insignificant in relation to the underlying uncertainties. The current mean point estimates of CDF and LERF for the new base case plus the proposed Special Test Exception are $2.30\text{E-}5$ and $5.07\text{E-}7$ per year, respectively. Hence, the proposed technical specification changes meet the decision criteria selected for this evaluation. Moreover, considering the unquantified reduction in risk due to the increased onsite power sources available during shutdown conditions, a larger decrease in CDF is conceivable as a result of these Technical Specification changes.

The requested change provides plant operations and maintenance personnel additional flexibility to plan Standby Diesel Generator and Essential Cooling Water System train maintenance, testing, troubleshooting activities, and optimize overall plant conditions, from a risk perspective, while avoiding administrative requirements for power reduction transients that could increase the potential for plant trips which challenge safety systems. It is anticipated that unquantified benefits to the plant's operations and maintenance activities relative to the Standby Diesel Generator and Essential Cooling Water System will also be realized by the proposed Special Test Exception. These benefits which will be the result of improved maintenance effectiveness due to the removal of competing plant maintenance and refueling tasks, improved human performance due to a more balanced workload on the maintenance personnel, better root cause analysis and enhanced corrective actions implementation due to a focused workforce, and improved equipment performance due to better maintenance effectiveness. The impact of all the above effects is expected to contribute to long term reductions in risk to the public, which can be confirmed as future performance data is collected and trended.

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 is inoperable there are still two complete trains available to mitigate the consequences of any accident. If the Essential Cooling Water loop is not inoperable during the 21 days the Standby Diesel Generator is inoperable, the Standby Diesel Generator's Engineered Safety Features bus and equipment in the train 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.

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 and Essential Cooling Water Allowed Outage Times once per fuel cycle 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 1.7×10^{-4} , a second one submitted in 1992 to meet the IPE requirements from the Level 2 PSA/IPE with a CDF estimate of 4.4×10^{-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 Technical

Specifications, Plant Specific Data and incorporate the Emergency Transformer into the model. This update resulted in a CDF estimate of 2.07×10^{-5} . When the requested changes are modeled along with the compensatory actions, the resulting CDF estimate is 2.30×10^{-5} . While this is slightly higher (approx. 11%) than the updated results, it is still significantly lower (approx. 46%) than the previous Risk-Based Evaluation of Technical Specification submitted in 1993. Therefore, it is concluded that there is no significant reduction in the margin of safety.

Based on the above evaluation, Houston Lighting & Power has concluded that these changes do not involve any significant hazards considerations.

Implementation Schedule:

Houston Lighting & Power 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.