

The Light company

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

November 8, 1994
ST-HL-AE- 4926
File No.: G09.06
10CFR50.90,
10CFR50.92, 10CFR51

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

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Unit 1 and Unit 2 Technical Specification 3.9.2

Houston Lighting & Power Company (HL&P) proposes to amend its Operating Licenses NPF-76 and NPF-80 for the South Texas Project Electric Generating Station (STPEGS), Units 1 and 2, by incorporating the attached proposed change to Technical Specification 3.9.2. The purpose of this amendment is permit the substitution of an Extended Range Neutron Flux Monitor for one of the Source Range Neutron Flux Monitor during refueling operations.

HL&P has reviewed the attached proposed amendment pursuant to 10CFR50.92 and determined that it does not involve a significant hazards consideration. In addition, HL&P has determined that the proposed amendment satisfies the criteria of 10CFR51.22(c)(9) for categorical exclusion from the requirement for 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 effected pages of the Technical Specifications are included as attachments to the letter.

150059

TSC-94/94-311.001

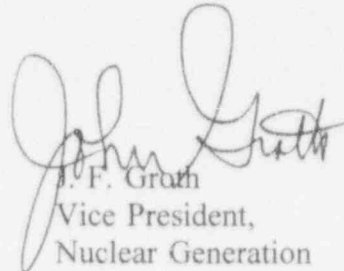
9411150296 941108
PDR ADDCK 05000498
P PDR

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

ADD 1

In accordance with 10CFR50.91(b), HL&P is providing the State of Texas with a copy of this proposed amendment.

If you should have any questions concerning this matter, please call Mr. S. H. Head at (512) 972-7136 or myself at (512) 972-8664.



J. F. Groth
Vice President,
Nuclear Generation

LW/pas

- Attachment:
1. Affidavit
 2. Safety Evaluation and No Significant Hazards Consideration Determination
 3. Mark-ups of Proposed Change to Technical Specifications 3.9.2

Houston Lighting & Power Company
South Texas Project Electric Generating Station

ST-HL-AE-4926
File No.: G09.06
Page 3

C:

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

Thomas W. Alexion
Project Manager
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001 13H15

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

J. R. Newman, Esquire
Newman, Bouknight & Edgar, P.C.
STE 1000, 1615 L Street, N.W.
Washington, DC 20036

K. J. Fiedler/M. T. Hardt
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

G. E. Vaughn/C. A. Johnson
Central Power and Light Company
P. O. Box 2121
Corpus Christi, TX 78403

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

ATTACHMENT 1

AFFIDAVIT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

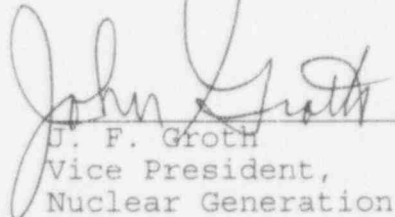
Houston Lighting & Power)
Company, et al.,)

Docket Nos. 50-498
50-499

South Texas Project)
Units 1 and 2)

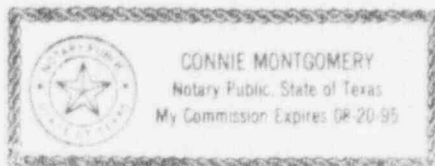
AFFIDAVIT

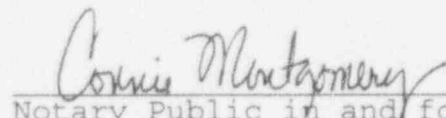
I, J. F. Groth, being duly sworn, hereby depose and say that I am Vice President, Nuclear Generation, of Houston Lighting & Power Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached revision to proposed changes to Technical Specification 3.9.2; that 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.


J. F. Groth
Vice President,
Nuclear Generation

STATE OF TEXAS)
)
)

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 9 day of November, 1994.




Notary Public in and for the
State of Texas

Background

Technical Specification 3/4.9.2 governs the nuclear instrumentation required to be operable during refueling in Mode 6. The current Specification requires two Source Range Neutron Flux Monitors be operable to provide redundant capability to detect changes in core reactivity. The detectors provide continuous visual indication in the control room and an audible indication in containment and the control room to alert operators to an increase in subcritical neutron multiplication due to a positive reactivity addition (e.g. boron dilution, improperly loaded fuel assembly, coolant temperature change, etc.).

In the event a source range detector were to become inoperable during refueling, scenarios exist where it may be impractical to repair the detector without relief from the current Technical Specification. Use of the Extended Range Neutron Flux Monitors would allow orderly completion of core alterations such that a favorable configuration for detector repair could be achieved. The requirement of one audible indication in containment and the control room can be satisfied by the operable Source Range channel. The current Extended Range channel design is capable of providing the required additional visual indication in the control room. By providing reliable, redundant indications of core reactivity changes, the intent of the specification is preserved.

In addition, the proposed change will alter the Surveillance Requirements. The Analog Channel Operational Test (ACOT) requirements will be replaced by a Channel Calibration (Ref. NUREG 1431, "Standard Westinghouse Technical Specifications). The current ACOTs are unnecessary since no trips are required during core alterations. The combination of the Channel Check and the Channel Calibration are sufficient to ensure that the detectors are capable of monitoring core reactivity changes.

Description of Proposed Change

HL&P proposes to change Technical Specification 3/4.9.2 to allow use of an extended range neutron flux detector as an additional indication for core reactivity monitoring as follows:

3.9.2 As a minimum, two Source Range Neutron Flux Monitors* shall be OPERABLE, each with a continuous visual indication in the control room and one with audible indication in the containment and control room.

4.9.2.b. A CHANNEL CALIBRATION, excluding the neutron detectors, every 18 months.

* An Extended Range Neutron Flux Monitor may be substituted for one of the Source Range Neutron Flux Monitor provided the OPERABLE Source Range Neutron Flux Monitor is capable of providing audible indication in the containment and control room.

Bases of Technical Specification 3.9.2 would also be changed to include the use of the Extended Range Monitors.

Safety Evaluation

The Extended Range Neutron Flux Monitors provide reliable neutron flux measurement from reactor shutdown to full power. The detector is of rugged design and is capable of operation in high gamma radiation and electrical noise environments. The detector features a fission chamber design with a source range of 0.1 to 1.0E5 cps. Multiple displays are available in the control room for Extended Range count rate.

The Extended Range Neutron Flux Monitors are capable of detecting changes in core reactivity during refueling operations. When neutronically coupled with a fuel assembly cluster, they provide a reliable indication of neutron flux equal to the Source Range Monitors. With the current design, one Source Range channel must be operable to provide an audible indication in containment and in the control room in order to satisfy the intent of the Specification. However, the second monitor is required to provide only a continuous visual indication in the control room. This function could be satisfied by an Extended Range Monitor, maintaining the required core monitoring capability and redundancy.

The proposed change would require revision of STP refueling procedures. However, the physical movement of the fuel assemblies are within the scope of the present refueling procedures. No new mechanism for fuel misloading or damage or boron dilution would be created by the change.

The current ACOTs are unnecessary since no trips are required during core alterations. The combination of the present Channel Check and the proposed Channel Calibration are sufficient to ensure that the detectors are capable of monitoring core reactivity changes.

No Significant Hazards Consideration Determination

Pursuant to 10CFR50.91, this evaluation provides a determination that the proposed change does not involve a significant hazards consideration as defined in 10CFR50.92:

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

During refueling operations, the Source Range channels are used only for monitoring changes in core reactivity, and do not provide inputs for automatically actuated equipment. The same function could be performed by an Extended Range channel. The combination of the present Channel Check and the proposed Channel Calibration are sufficient to ensure that the detectors are capable of monitoring core reactivity changes. By providing the intended redundant core reactivity monitoring, neither the possibility or consequences of an accident previously evaluated are increased.

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

During refueling operations, the Source Range Monitors are used simply as monitoring instrumentation. Extended Range Monitors are capable of performing this function. The combination of the present Channel Check and the proposed Channel Calibration are sufficient to ensure that the detectors are capable of monitoring core reactivity changes.

The proposed change would require revision of STP refueling procedures. However, the physical movement of fuel assemblies is within the scope of current refueling procedures. No new mechanism for fuel misloading or damage or boron dilution would be created by the change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

The proposed change provides core reactivity monitoring comparable to that provided by the use of the Source Range channels. The Extended Range channel is capable of detecting core reactivity changes and provides the intended redundancy. The combination of the present Channel Check and the proposed Channel Calibration are sufficient to ensure that the detectors are capable of monitoring core reactivity changes. No margin of safety is compromised by this change.

Based on the reasoning above, HL&P has determined that the requested change does not involve a significant hazards consideration.