

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

February 18, 1991

ST-HL-AE-3686

File No.: G9.17, J34,
9.14, J41.3

10CFR50

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

South Texas Project Electric Generating Station
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Rescheduling of the Resolution of Category
C Human Engineering Deficiencies Originally
Scheduled for the Unit 1 Third Refueling Outage

- Reference:
- A. Control Room Design Review Status; M. A. McBurnett, HL&P, Letter to the NRC; ST-HL-AE-3319; dated December 28, 1989.
 - B. Reforecast of Category C Human Engineering Deficiencies (HEDs) Originally Scheduled for Unit 1 Refueling; M. A. McBurnett, HL&P, Letter to the NRC; ST-HL-AE-3074; dated May 11, 1989.
 - C. Completion of Modifications to the Safety Parameter Display System (SPDS) for the First Refueling Outage; M. A. McBurnett, HL&P, Letter to the NRC; ST-HL-AE-3320; dated January 5, 1990.

Because of a forced outage late in the fuel cycle, the STP Unit 1 third refueling outage schedule was advanced to January 15, 1991 from March 2, 1991. Corrective action for a number of Category C (equipment/plant reliability enhancement) Human Engineering Discrepancies (HEDs) previously scheduled for the third refueling outage (References A, B, & C) must be deferred until the Unit 1 fourth refueling outage. The design change packages are not complete and their completion cannot be expedited by the almost two months necessary to fit into the new outage schedule.

9102270048 910218
PDR ADDCK 05000498
P PDR

ADD 1
10

None of these HEDs represents a safety concern, as evidenced by their Category C classifications. Their correction will provide an enhancement in the operator interface within the Control Room. The NRC staff previously concurred with HL&P's program for categorization and implementation of corrective action for HEDs (NUREG-0781, Supplement No. 4). HL&P remains committed to the Control Room Design Review as an ongoing program. HL&P has chosen to implement these design changes after a thorough review of the affected systems and their usage by the plant operators. The evolution of procedures and plant operating experience over the past two years is also a factor in assessing the need for and appropriateness of proposed changes. Specific HEDs were discussed in the attachments to Reference A. The remaining unresolved Category C HEDs can generally be classified as Control Panel or Computer discrepancies.

1. Control Panel HEDs

Discrepancies were identified by Engineering, Operations, consultant, and NRC personnel. Resolution generally involves the modification or addition of labels, demarcation painting, and/or process mimic. These changes are being prepared for work on a non-outage basis where practical; however, completion of the changes will be extended until the end of the Unit 1 fourth refueling outage.

2. Computer System HEDs

General areas of concern were identified as above; however, the specific discrepancies were mostly identified through a lengthy detailed review by a task force composed of Engineering, Operations, and Training personnel. Design changes to correct these deficiencies have been grouped into three interrelated plant modifications as follows:

A. Qualified Display Processing System (QDPS) Changes

The QDPS displays were reviewed in detail, considering known minor discrepancies, usage by the operators, appropriateness and completeness of information displayed, alarm conditions, and interface with plant procedures. Specific changes were identified and are being implemented by Westinghouse for installation at STP during upcoming outages. While the majority of the changes only affect the Display Units, the addition of several calculated points also affects the Database Processing Units (DPUs).

B. Emergency Response Facilities Data Acquisition and Display System (ERFDADS) Algorithm Changes

The QDPS Displays are duplicated in ERFDADS, to the extent practical. ERFDADS receives the individual sensor data from QDPS via datalink and performs calculations corresponding to those in QDPS. The results of calculations displayed on the two systems sometimes differ because of (1) differences in the algorithms used in the two systems, and (2) hardware limitations of the systems. This modification will provide the results of calculations performed in the QDPS DPUs to the ERFDADS, thus minimizing differences in the values displayed. This change must be implemented during an outage and will be completed by the end of the Unit 1 fourth refueling outage.

C. ERFDADS Display Changes

In a letter dated August 3, 1990, the staff concluded that STP has satisfactorily met all the requirements for an SPDS specified in NUREG-0737, Supplement 1. The result of the changes currently in progress will be an enhancement to the operator interface with the ERFDADS which is separate from the minimum requirements for the SPDS.

The ERFDADS version of the QDPS displays and the remaining Safety Parameter Display System (SPDS) displays were reviewed in detail (Some of the ERFDADS QDPS displays are also part of the SPDS). This review considered known minor discrepancies, usage by the operators, appropriateness and completeness of information displayed, alarm conditions, calculations performed, and interface with plant procedures.

Display and database changes will be implemented for the SPDS and QDPS groups of displays during the Unit 1 fourth refueling outage, and in conjunction with the other two modifications discussed above. Review of the remaining group of ERFDADS displays is ongoing, and any changes needed will be implemented at a future date.

An update to the SPDS Safety Analysis Report will be provided after these changes are completed, as stated in Reference C.

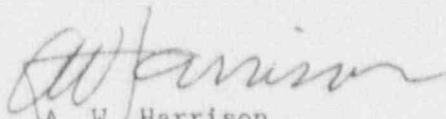
Houston Lighting & Power Company
South Texas Project Electric Generating Station

ST-HL-AE-3686

File No.: G9.17, J34,
9.14, J41.3

Page 4

If you should have any questions on this matter, please contact
Mr. S. D. Phillips at (512) 972-8472 or myself at (512) 972-7298.



A. W. Harrison
Manager,
Nuclear Licensing

SDP/sgs

Houston Lighting & Power Company
South Texas Project Electric Generating Station

ST-HL-AE-3686
File No.: G9.17, J34, 9.14, J41.3
Page 5

cc:

Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

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

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

J. R. Newman, Esquire
Newman & Holtzinger, 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

R. J. Costello/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 11713

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

Revised 01/29/91

L4/NRC/