The Light company
Houston Lighting & Power

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

August 3, 1988
ST-HL-AE-2741
File No.: G2.04
10CFR2.201

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

South Texas Project Electric Generating Station
Unit 1
Docket No. STN 50-498
Response to Severity Level IV Violations
Resulting from the NRC Enforcement Conference Held May 26, 1988

Houston Lighting & Power has reviewed Notices of Violation 8811-02, 8824-02, and 8824-04 and submits the attached responses pursuant to 10CFR2.201. Our response to violation 8824-01 will be submitted by separate correspondence.

The response provided to Notice of Violation 8811-02 was previously submitted to the NRC by Licensee Event Report 88-019, dated March 14, 1988. We have been informed by NRC Region IV inspection personnel that this Licensee Event Report will be closed in upcoming Inspection Report 88-039.

If you should have any questions on this matter, please contact Mr. M. A. McBurnett at (512) 972-8530.

G. E. Vaughn
Vice President
Nuclear Plant Operations

GEV/RAF/nl

Attachment: Response to Notices of Violation

8808110041 880803
PDR ADOCK 05000498
Q PDC

cc:

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

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

Jack E. Bess
Resident Inspector/Operations
c/o U. S. Nuclear Regulatory Commission
P. O. Box 910
Bay City, TX 77414

Don L. Garrison
Resident Inspector/Construction
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

R. L. Range/R. P. Verret
Central Power & Light Company
P. O. Box 2121
Corpus Christi, TX 78403

R. John Miner (2 copies)
Chief Operating Officer
City of Austin Electric Utility
721 Barton Springs Road
Austin, TX 78704

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

Rufus S. Scott
Associated General Counsel
Houston Lighting & Power Company
P. O. Box 1700
Houston, TX 77001

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

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

South Texas Project Electric Generating Station
Unit 1
Docket No STN 50-498
Response to Notice of Violation 8811-02

I Statement of Violation

TS 3.52 [sic] requires three operable independent ECCS subsystems. With one ECCS subsystem inoperable, the subsystem must be restored within 72 hours or the plant must be shut down in accordance with the action statement requirements TS 3.5.2 does not describe actions for two inoperable ECCS subsystems; therefore, TS 3.0.3 applies. TS 3.0.3 requires that when a limiting condition for operation is not met, except as provided in the associated action requirements, within 1 hour action shall be initiated to place the unit in a mode in which the specification does not apply by placing it in at least Hot Shutdown (Mode 4) within the following 6 hours.

Contrary to the above, on February 13, 1988, at 4:17 a.m., the licensee suspended a cooldown being performed under TS 3.0.3 when maintenance that satisfied an action for TS 3.7.14. was complete on essential chiller C and returned the plant to Hot Standby (Mode 3) without having met the requirements of TS LCO 3.5.2 or its associated action statements in that two Emergency Core Cooling Subsystems A and C were not fully operable.

II Houston Lighting & Power Position

Houston Lighting & Power does not contest the violation.

Please note that in the statement of violation in your letter dated July 8, 1988 the reference to T.S. 3.52 should be 3.5.2.

III Reason for Violation

The cause of this violation was a personnel error. The Operability Tracking Log was incorrectly updated and maintained with regard to affected ESF equipment when Train A Essential Chiller was declared inoperable.

IV Corrective Actions Taken and Results Achieved

A. Special training has been conducted, emphasizing the importance of accurately determining the subsystems affected by inoperable components.

B. Training on the use of the "Hypothetical Mode" of the computerized LCO Tracking System has been provided to the shift supervisors to enhance their understanding of the impact of inoperable equipment on other systems.

V Corrective Actions Taken to Prevent Recurrence

Procedure OPOP01-ZQ-0030, Maintenance of Plant Operations Logbooks, has been revised to provide a more structured Technical Specification review for impact of inoperable equipment on other systems. This review requires the shift and unit supervisors and shift technical advisors to independently evaluate affected equipment.

VI Full Compliance

The plant is in full compliance at this time.

South Texas Project Electric Generating Station
Unit 1
Docket No STN 50-498
Response to Notice of Violation 8824-02

I Statement of Violation

Technical Specification (TS) Section 6.0 (Administrative Controls), Specification 6.8.1, requires that procedures shall be established, implemented, and maintained for plant operations. Plant Procedure 1PEP04-ZX-0004, Revision 3, "Isothermal Temperature Coefficient (ITC) Measurement," requires the test data taken to be reviewed and signed off by an independent reviewer.

Contrary to the above, the NRC identified an error during a test results verification. During the week of March 8, 1988, the test was performed and incorrect data for the ITC was obtained due to an error in transferring the information from the test graph to the data sheet. This led to an erroneous calculated value for the moderator temperature coefficient. This data was signed off as reviewed by an engineer. The test director, engineering manager, plant manager, and Plant Operations Review Committee (PORC) also approved the test results. The NRC inspector identified the error during a test results verification.

II Houston Lighting & Power Position

Houston Lighting & Power does not contest the violation.

III Reason for Violation

The violation occurred as a result of personnel error during the conduct of the test and inadequate review during the post test review and approval phase.

The personnel who were conducting the isothermal temperature coefficient measurements are degreed nuclear engineers, certified Test Directors, and are licensed Senior Reactor Operators. The two individuals measured the isothermal temperature coefficient at three different control rod positions using data from a cooldown and heatup. The ITC was determined correctly 5 out of 6 times indicating that the procedure was followed and that the procedure was not in error. These personnel worked as a team during the conduct of the test and determined the reactivity change and temperature change from the x-y plot together rather than taking the time to make totally independent calculations.

III Reason for Violation (Cont.d)

The review process of Initial Startup Tests results includes reviews by the Test Director, the Shift Test Director, the Reactor Performance Supervisor, the Reactor Support Manager, the Plant Engineering Manager, the Plant Operations Review Committee, and the Plant Manager. This review chain is in addition to other independent second reviews that take place during the performance of a test, as required by the test procedure. The Test Director and the Shift Test Director review the Test Packages primarily for technical adequacy, however, compliance with programmatic requirements is verified prior to submittal for approval. After the Test Packages are released by the Shift Test Director to the Reactor Performance Supervisor, subsequent reviews are primarily for compliance with programmatic requirements and verification that Acceptance Criteria are met. The Reactor Performance Supervisor and the Reactor Support Manager do, however, review the Test Package for technical adequacy, but not in the same detail as what is performed during test conduct and Test Package preparation. The Plant Operations Review Committee and the Plant Manager review the completed Test Package to verify that all acceptance criteria were met. During the above process none of the reviewers rechecked the x-y plot to ensure that the values used in the calculation were correct.

IV Corrective Actions Taken and Results Achieved

A. Test Packages required for the Initial Criticality and Low Power Physics Test Plateaus have been reviewed for technical and administrative compliance. As a result of this review, one additional calculational error was identified and corrected. The test package in error was for procedure 1PEP04-ZX-0003, Boron Endpoint Determination. The error involved the Boron Endpoint for the all control rods inserted configuration; the corrected endpoint was 624.2 ppm instead of the 624.4 ppm previously recorded. Please note that there are no acceptance criteria for this particular procedure.

B. In addition, a review of Cold and Hot Precritical Test Packages was performed. Two additional calculational errors were discovered, neither of which affected the outcome of the affected tests. These packages will be corrected prior to the completion of the Initial Startup Test Program.

V. Corrective Actions Taken to Prevent Recurrence

A. Procedure 1PEP04-ZA-0003, Documentation of Initial Startup Test Results, has been revised to include a requirement to perform a random verification of calculations made to support test results. This verification will be performed by an individual not directly involved in the performance of the test.

B. Test Directors and Shift Test Directors have been retrained on their responsibilities for Test Package review; in particular on the importance of performing independent reviews.

VI Full Compliance

Since the errors identified in Section IV.B. did not affect the outcome of any tests, the plant is in full compliance at this time.

South Texas Project Electric Generating Station
Unit 1
Docket No STN 50-498
Response to Notice of Violation 8824-04

I Statement of Violation

The TS Section 6.0 (Administrative Controls), Specification 6.8.1, requires that procedures shall be established, implemented, and maintained for plant operations.

Plant Procedure OPGP03-ZO-0001, Revision 7, "Equipment Clearance," describes the requirements for controlling system boundaries and the logging of components within these boundaries. Step 3.1.3.b [sic] requires that all valves inside the boundary shall be listed on the clearance and shall be returned to their required operating position prior to releasing boundary valves.

Contrary to the above, Plant Procedure OPGP03-ZO-0001, Revision 7, was not followed in that boundaries were not correctly controlled and the associated valve within the boundaries were not properly listed on the clearance as required in Step 5.1.3.b of the procedure. Specifically drain valve LV-002L [sic] and LU-0119 were opened after the boundary was established; however they were not returned to their required operating position prior to releasing the boundary valves. These failures to follow procedures resulted in approximately 1000 gallons of lubricating oil for the No. 13 Emergency Diesel Generator being pumped from the lube oil sump onto the floor of the diesel generator building.

II Houston Lighting & Power Position

Houston Lighting & Power does not contest the violation.

Please note that in the statement of violation in your letter dated July 8, 1988 your reference to step 3.1.3.b should be 5.1.3.b and valve LV-002L should be LU-0071.

III Reason for Violation

This violation occurred as the result of several factors which are listed below:

A. On shift operators did not comply with the requirements and guidelines set forth in procedure OPGP03-ZO-0001, Equipment Clearance, relating to establishing of system boundaries and the logging of components within those boundaries.

B. Information regarding the draining of a major Diesel Generator Support system was not relayed between shifts during shift turnovers.

C. A full system line up verification was not performed and operators were not present during the starting of equipment after a major system/equipment outage.

IV Corrective Actions Taken and Results Achieved

A. A directive has been issued to operations personnel reinforcing the need to follow procedures and the policy of having an observer in the vicinity when starting and stopping major equipment.

B. A memo has been issued to all operations personnel showing the sequence of events pertaining to several Station Problem Reports involving the Equipment Clearance Procedure/Program.

C. Information regarding this incident has been circulated to all operations personnel as required reading.

V Corrective Actions Taken to Prevent Recurrence

The actions taken in Section IV should be adequate to prevent recurrence.

VI Full Compliance

The plant is in full compliance at this time.