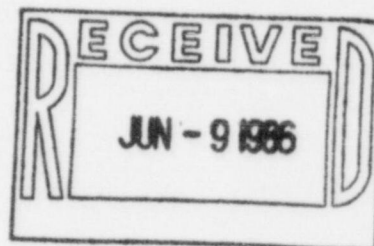


The Light company

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

June 5, 1986
ST-HL-AE-1677
File No.: G12.317, 2.2

Mr. Robert D. Martin
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011



South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Final Report Concerning
Rotated Locknuts on Cable Tray Support Connections

Dear Mr. Martin:

On March 10, 1986, pursuant to 10CFR50.55(e), Houston Lighting & Power Company (HL&P) notified your office of a potentially reportable item concerning locknuts on safety-related cable trays that were incorrectly oriented. Attached is the final report concerning this item. We have determined that this item does not meet the reportability criteria of 10CFR50.55(e).

If you should have any questions on this matter, please contact Mr. C. A. Ayala at (512) 972-8628.

Very truly yours,

A handwritten signature in cursive script that reads "J. H. Goldberg".

J. H. Goldberg
Group Vice President, Nuclear

BMK/yd

Attachment: Final Report Concerning
Rotated Locknuts on Cable Tray Support Connections

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cc:

Hugh L. Thompson, Jr., Director
Division of PWR Licensing - A
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

N. Prasad Kadambi, Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Claude E. Johnson
Senior Resident Inspector/STP
c/o U.S. Nuclear Regulatory
Commission
P.O. Box 910
Bay City, TX 77414

M.D. Schwarz, Jr., Esquire
Baker & Botts
One Shell Plaza
Houston, TX 77002

J.R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

Director, Office of Inspection
and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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

H.L. Peterson/G. Pokorny
City of Austin
P.O. Box 1088
Austin, TX 78767

J.B. Poston/A. vonRosenberg
City Public Service Board
P.O. Box 1771
San Antonio, TX 78296

Brian E. Berwick, Esquire
Assistant Attorney General for
the State of Texas
P.O. Box 12548, Capitol Station
Austin, TX 78711

Lanny A. Sinkin
Christic Institute
1324 North Capitol Street
Washington, D.C. 20002

Oreste R. Pirfo, Esquire
Hearing Attorney
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Charles Bechhoefer, Esquire
Chairman, Atomic Safety &
Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dr. James C. Lamb, III
313 Woodhaven Road
Chapel Hill, NC 27514

Judge Frederick J. Shon
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Citizens for Equitable Utilities, Inc.
c/o Ms. Peggy Buchorn
Route 1, Box 1684
Brazoria, TX 77422

Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(3 Copies)

Advisory Comm ttee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
1717 H Street
Washington, DC 20555

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Final Report Concerning
Rotated Locknuts on Cable Tray Support Connections

I. Summary

On March 10, 1986, pursuant to 10CR50.55(e), HL&P notified your office of a potentially reportable item concerning incorrectly positioned locknuts in safety-related cable tray supports. All discrepancies noted during the reinspection program have been corrected to assure the supports perform their intended design function. Additional evaluation has confirmed the adequacy of the affected supports.

II. Description of Deficiency

A Quality Control (QC) sample reinspection of previously installed and inspected safety-related cable tray supports identified supports which had locknuts installed incorrectly. The correct installation requires the serrated grooves of the locknuts to be engaged in the lip of the Globe-strut channel. Discrepancies included rotated locknuts and locknuts which were not fully engaged in the channel. This resulted in a reduced load capacity for the affected supports.

The root causes of these discrepancies were poor workmanship by the craft personnel installing the locknuts and lack of specific inspection requirements for QC inspectors.

III. Corrective Action

The sampling program described in Section II above led to a reinspection of all accessible, structurally significant bolted connections on cable tray supports which had been installed as of April 4, 1986. About 900 Safety Class 3 and 7 (seismic II/I) supports were reinspected. These included approximately 2000 connections which had approximately 11,200 locknuts. About 2000 locknut discrepancies were found, which represents 18% of the locknuts reinspected. More than 98% of the discrepancies involved locknut rotation of less than 45° or locknuts that had no rotation, but were only partially engaged in the channel.

Each discrepancy found during the reinspection program was corrected immediately after data collection by ensuring proper alignment and engagement of the locknuts. No further corrective action is required.

IV. Recurrence Control

As part of an earlier improvement to the program, general foremen, foremen, and electrical craftsmen were retrained in the correct installation of the locknuts and instructed to take the extra time to check and assure proper installation. The QC/Civil inspectors were instructed in the proper verification of alignment and engagement of the locknuts. The QC inspection procedure was clarified to include specific inspection requirements to ensure correct locknut orientation.

The monitoring and surveillance process already in place by HL&P, Bechtel and Ebasco will be used to confirm the effectiveness of these recurrence control measures.

V. Safety Analysis

The installed capacity of each connection was established on the basis of the locknut position determined from the reinspection results. Where necessary, individual supports were reviewed and the actual load computed on the basis of the installed spans between supports and the seismic accelerations applicable at the support locations.

The engineering evaluation confirmed that the supports with incorrectly installed locknuts would have been adequate to perform their intended safety-related function under the specified loads. We have further determined that based on our analysis, reinspection of the remainder of the supports is not necessary. Since there would have been no impact on the safety of plant operations had these deficiencies remained uncorrected, we have determined that this item does not meet the reportability criteria of 10CFR50.55(e).