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November 3, 1986
ST-HL-AE-1747
File No.: G2.4

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-OL
Response to Notice of Violation 8623-02

Dear Mr. Martin:

Houston Lighting & Power Company has reviewed Notice of Violation 50-498/8623-02 dated October 8, 1986 and submits the attached response pursuant to 10CFR 2.201.

If you should have any questions on this matter, please contact Mr. S.M. Head at (512) 972-8392.

Very truly yours,

J. H. Goldberg

J. H. Goldberg
Group Vice President, Nuclear

GSS/mg

Attachment: Response to Notice of Violation 8623-02

L4/NRC/f/mg-0

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L4/NRC/f/mg-0

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Response to Notice of Violation 8623-02

I. Statement of Violation

Criteria V of Appendix B to 10 CFR Part 50, requires activities affecting quality be prescribed by and accomplished in accordance with appropriate instructions, procedures, or drawings. This requirement is amplified by the approved QAPD for South Texas Project. The following are examples of failures to meet this requirement.

1. SSP-9.0, Revision 4, paragraph 5.2.7.3 states, "that all work on permanent or temporary supports which are released for test shall require a Startup Work Request (SWR) before any work can be performed."

   Contrary to the above, construction craft removed the main steam piping temporary supports in Isolation Valve Cubical (IVC) A and C without a SWR which resulted in an overload condition of the main steam line.

2. Specification 5L340JS1002, Revision 10, paragraph 5.4.4.5 states, in part, that deviations in the actual cold position are permitted to account for slight imbalance. The constructor shall check/verify to assure that this deviation will not result in bottoming out or topping out of the spring hangers due to thermal or seismic movements of the pipe.

   Contrary to the above, construction craft did not check/verify the main steam (MS) line in Unit 1 IVC A and C after hydrostatic testing resulting in the bottoming out of spring hangers MS1001-HL5013 and MS1003-HL5018.

3. Specification 5L340JS1002, Revision 10, paragraph 5.4.4.7 states "travel stops in variable springs may be removed, as directed by engineering, to facilitate system testing."

   Contrary to the above, travel stops in variable spring hangers MS1001-HL5013 and MS1003-HL5018 were removed without approval from engineering.

This is a Severity Level IV violation. (10CFR Part 2, Supplement I.E.) (498/8623-02)

II. Reason for Violation

The root cause of this Violation has been determined to be a lack of attention by construction personnel to applicable project requirements for removal of temporary supports and travel stops, verification of spring hangers for bottoming out or topping out conditions, and a misinterpretation by Quality Control (QC) personnel of procedural requirements for removal of travel stops. System testing may require removal of some travel stops, as directed by Engineering in the Engineering Pipe and Pipe Supports Evaluation Sheets (also called Hanger Adequacy Letters); however, verification of the status of travel stops prior to hydrostatic test was not performed. QC assumed that the issuance of the Adequacy Letter by Engineering provided the necessary verification.

III. Corrective Action Taken And Results Achieved

An investigation of the situation was performed and the following documents were issued to assess and correct the problem: (i) Nonconformance Reports (NCR's) CS-03998, CS-03999, CS-04008 and CS-04039 were prepared to document the nonconforming conditions, (ii) Stop Work Notice 86-03 was issued to prevent any further unauthorized work on the affected Main Steam Lines within the Unit 1 IVC (The Stop Work Notice was lifted after completing the investigation), (iii) Engineering Problem Investigation Report 86-5029 was issued to evaluate the reported condition and determine the necessary corrective action, (iv) Deficiency Evaluation Report 86-037 was issued to evaluate the condition for potential reportability pursuant to 10CFR50.55(e) and 10CFR part 21 requirements.

To assess the overall status of temporary and permanent supports, a walk-down was performed on other piping systems containing a total of one hundred and sixteen (116) permanent and temporary supports. These supports were found to be installed in accordance with the project requirements. Supports with spring hangers were inspected to assure that the travel stops were in place as required. Additionally, it was verified that permanent and temporary supports were properly tagged.

Craft and field engineering personnel were retrained on the requirements for the removal of travel stops and temporary supports. The training was based on the controls in place at the time this problem occurred, and stressed that temporary supports and travel stops must not be removed without Engineering approval.

Temporary supports for the main steam lines were immediately provided to preclude further pipe movement. In addition, an analysis of the stresses imposed on the permanent plant supports, piping and associated structures has been performed. Analysis has shown that the deficiency did not result in overstress of the main steam lines, permanent plant supports, or associated structures. NCR dispositions are based on the results of the stress analysis.

IV. Corrective Steps Which Have Been Taken To Prevent Recurrence

In addition to the above, the following actions have been taken to prevent recurrence of the problem:

- Specification 5L340JS1002 "Pipe Support Field Fabrication and Installation", for controls of permanent plant hangers, temporary supports and spring hanger travel stop installation and removal was reviewed and found to be adequate. However, the specification has been clarified to better define the project requirements related to travel stops.

- Standard Site Procedure SSP-2 "Project Generic Pressure Test Procedure", was reviewed to determine if appropriate controls were specified for work performed on spring hanger travel stops and essential supports required for hydrostatic test and was found to be adequate. However, SSP-2 was revised to clarify its intent to avoid any possible misinterpretation of project requirements regarding removal of travel stops. The revision also included requirements for QC to verify, during the walkdown prior to hydrostatic test, that spring hanger travel stops are either in place or removed in accordance with Engineering direction given in the Hanger Adequacy Letter. In addition, Field Engineering will verify that spring hangers are not bottomed or topped out.

- Standard Site Procedure SSP-9 "Pipe Support Installation" was reviewed to determine if appropriate controls were specified for temporary and permanent support installation and was found to be adequate. However, SSP-9 has been revised to clarify the requirements for Design Engineering approval of work on temporary or permanent supports after release for test and to clarify the requirements that permanent supports be installed and that Field Engineering approval be obtained prior to the removal of temporary supports. In addition, the revision added the requirement for QC to verify that spring hanger travel stops have been removed as required for system balancing and that documentation to support balancing is available.

- Standard Site Procedure SSP-36 "Construction Work Package" was also revised to include a requirement for Field Engineering to approve the removal of a temporary support after its associated permanent support is installed. This will ensure that a permanent support is functional prior to the removal of the temporary support.

Appropriate Construction and QC personnel have received training on the requirements of the revised procedures.

V Date of Full Compliance

STP is in full compliance at this time.