

The Light company

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

May 7, 1992

ST-HL-AE-4076

File No.: G9.16

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

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Requests for Relief from ASME Boiler and
Pressure Vessel Code Section XI Relief Requests Nos.
RR-50 and RR-45, RR-51 and RR-46, RR-7 rev. 1 and RR-6 rev. 1

Reference Code : ASME Boiler and Pressure Vessel Code Section XI, 1983 Edition Through Summer Addenda, Subsection IWP for Inservice testing of pumps and Subsection IWV for Inservice testing of Valves.

In accordance with your letter dated March 19, 1992, concerning the STP Inservice Testing Program, attached for your review and approval are relief requests Nos. RR-51 and RR-46 for the inclusion of cold shutdown "cs" position into the IST program. Also enclosed are relief requests RR-50 and RR-45 for Unit 1 and Unit 2 valve stroke time trending; and revision 1 to relief requests RR-7 and RR-6 for Unit 1 and Unit 2 regarding allowable ranges for vibration velocities for pump testing. We will implement these revisions to the IST program upon notification of NRC approval of the relief requests.

You noted during the review that cold shutdown justifications were not included for the accumulator discharge isolation valves and the accumulator vent valves added to the IST Programs. We have determined that the accumulator discharge isolation valves may be tested in modes other than cold shutdown using appropriate precautions. Test procedures will be revised to provide instructions on the method for testing the accumulator discharge isolation valves during plant operations on a quarterly basis. A relief request for the accumulator vent valves will be submitted under separate cover.


A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company

If you have any questions, please contact Mr. A. W. Harrison
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William J. Jump
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SDP/

- Attachments:
1. Relief requests RR-51 and RR-46
 2. Relief requests RR-50 and RR-45
 3. Relief requests RR-7, Revision 1
and RR-6, Revision 1

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Revised 10/11/91

L4/NRC/

RELIEF REQUEST 50 (UNIT 1)
RELIEF REQUEST 45 (UNIT 2)

Test Requirement

If, for power operated valves, an increase in stroke time of 25% or more from the previous test for valves with full-stroke times greater than 10 seconds, or 50% or more for valves with full-stroke times less than or equal to 10 seconds is observed, test frequency shall be increased to once each month until corrective action is taken, at which time the original test frequency shall be resumed.

Basis for Relief

Measuring changes in full-stroke times from a reference value as opposed to measuring changes from the previous test provides a better indication of valve operability. Trending from a reference value based on stroke times obtained while valve is operating properly will reduce the number of times a valve may go into increased frequency due to fluctuating data. Generic Letter 89-04 also suggests that this method of trending is acceptable.

Alternate Method of Testing

The performance of all power operated valves will be evaluated using reference values for comparing stroke times, as discussed in GNL 89-04, "Guidance on Developing Acceptable Inservice Testing Programs", rather than previous test values. Reference values will be established from data measured when each valve was known to be operating acceptably.

RELIEF REQUEST 51 (UNIT 1)
RELIEF REQUEST 46 (UNIT 2)

Test Requirement

Valves that cannot be full stroke exercised during plant operation shall be full-stroke exercised during cold shutdown.

Basis for Relief

Requiring the testing of all cold shutdown valves during a short cold shutdown would limit the unit's capability to startup.

Alternate Method of Testing

Valve testing will commence no later than 48 hours after a cold shutdown condition is achieved and continue until complete or until the plant is ready to return to power. Completion of all valve testing will not be a prerequisite to return to power. Any testing not completed during one cold shutdown will be performed during the subsequent cold shutdowns starting from the last test performed at the previous cold shutdown. For planned cold shutdowns where ample time is available and testing all valves identified for cold shutdown test frequency in the IST program will be accomplished, exception to the 48 hours will be taken.

RELIEF REQUEST 7 (UNIT 1), REVISION 1
RELIEF REQUEST 6 (UNIT 2), REVISION 1

Test Requirement

IWP-4510 requires that at least one displacement vibration amplitude shall be read during each inservice test. Table IWP-3100-2 defines the allowable range of vibration based on displacement amplitude.

Basis for Relief

The use of a velocity standard, rather than a displacement standard, is more indicative of pump condition and is industry accepted.

Alternate Method of Testing

Velocity vibration measurements (in/sec unfiltered peak) shall be read during each inservice test. Centrifugal pump measurements will be taken in a plane perpendicular to the shaft in two orthogonal directions on all accessible pump bearing housings and in the axial direction on all accessible thrust bearing housings. On vertical pumps, measurements will be taken on the upper motor bearing housing in three orthogonal directions. The frequency response range of the vibration measuring transducers and the readout system shall be from one-third minimum pump shaft rotational speed to at least 1000 Hertz with an accuracy of at least $\pm 5\%$. Allowable ranges of vibration velocity for pump testing shall be as follows:

| | |
|-------------------|------------------------------------------------|
| Acceptable Range: | $\leq 2.5 V_r$ |
| Alert Range: | $> 2.5 V_r$ to $6 V_r$ or > 0.325 in/sec. |
| Required Action: | $> 6 V_r$ or > 0.70 in/sec. |

Reference OM Code - 1990, Subsection ISTB