

The Light company

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

March 29, 1993
ST-HL-AE-4387
File No.: G20.02
G21.02
10CFR50.36

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

South Texas Project
Unit 1
Docket No. STN 50-498
Temporary Waiver Of Compliance To
Specification 3/4.1.3.3

Houston Lighting & Power (HL&P) requests a temporary waiver of compliance from the provisions of Technical Specification (TS) 3/4.1.3.3, Position Indication System Shutdown. HL&P specifically requests that the reactor trip breakers be allowed to be closed prior to declaring the Digital Rod Position Indication System (DRPI) operable. The requested duration of the waiver is seven days to allow troubleshooting and corrective action on the rod control system. The reactor will remain at Mode 3 or below for the duration of the waiver.

The following information is required pursuant to NRC Correspondence dated February 22, 1990, to support a Temporary Waiver of Compliance (TWOC).

1. Requirements for which Waiver is Requested

STP Unit 1 is presently in Mode 5. Maintenance was recently performed on the DRPI for five of the control rods. Post-maintenance testing was conducted using the DRPI Surveillance procedure. During the testing it was noted that no control rod motion was indicated on 15 of 24 control rods. The rods are fully inserted. Troubleshooting has shown that the problem is apparently not in DRPI, but with the rod control system. In conformance with TS 3/4.1.3.3, since DRPI is considered inoperable because the surveillance cannot be successfully completed, then the action statement requiring the reactor trip breakers to be opened has been followed. Troubleshooting and repair of the control rods cannot be done with the reactor trip breakers open, and the rods must be made movable in order to complete the surveillance and demonstrate operability of DRPI.

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HL&P is requesting a temporary waiver of seven days from this requirement in order to allow closing the reactor trip breakers to troubleshoot and repair problems with the rod control system.

2. Circumstances Surrounding the Situation

As discussed in Item 1 above, these circumstances were identified during maintenance work performed on DRPI. The rod control system has not exhibited any prior indications of malfunctions. The Technical Specifications were not written anticipating the unusual case of concurrent rod control system and DRPI problems.

Prompt action is necessary to allow HL&P to continue its restart of Unit 1 from the current outage.

3. Compensatory Actions

As discussed below, there is minimal, if any, safety significance to this request. However, while rod control system troubleshooting is being conducted, conservative shutdown margins will be maintained (refueling boron concentration) and operators will be able to quickly respond manually to any adverse indication from the rod control system. No more than one bank of control rods will be moved at any one time.

Also, HL&P has performed sufficient review of the DRPI to believe the system is functional. Maintenance was performed on only 5 of 114 DRPI connections. There are presently no known problems or failure indications. For those rods which moved during testing, DRPI indicated properly. Voltage measurements from the DRPI coil stacks were satisfactory. Unit 1 results have been compared with Unit 2 and found to be consistent.

4. Evaluation of the Safety Significance

Closing the reactor trip breakers and allowing control rod movement without DRPI having been proven operable in Mode 5 has minimal, if any, safety significance. Technical Specifications require adequate shutdown margin (e.g., boration) to be maintained and no deviation from those requirements is proposed. The shutdown margin Technical Specifications along with standard control board monitoring by our licensed operators provide sufficient safety margin.

Modes 1 and 2 are the modes in which power is generated and where operability and alignment of the control rods have the potential to affect the safety of the plant. In the shutdown modes, operability of the shutdown banks has the potential to affect required shutdown margin, but as indicated previously, this is adequately compensated for by boron concentration. This basis has been applied in the newly published Standard Technical Specifications for Westinghouse Plants, NUREG-1431, in which DRPI is only required to be operable in Modes 1 and 2.

Consequently, HL&P has determined there is little or no safety significance associated with this TWOC.

5. Justification for the Duration of the Request

Seven days is requested to allow sufficient time to troubleshoot and correct problems with the rod control system. The duration of the request imposes no additional safety risk to the station.

6. No Significant Hazards Consideration

- a. The proposed TWOC does not involve a significant increase in the probability of a previously evaluated accident since adequate shutdown margin will be maintained while the control rods are moved and the plant will be operated consistent with its design basis. Furthermore, indications are that DRPI is functional.
- b. The proposed TWOC does not create the possibility of a new or different accident from any previously evaluated since the plant will be operated consistent with its design basis.
- c. The proposed TWOC does not involve a significant reduction in the margin of safety since adequate shutdown margin will be maintained.

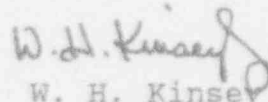
7. Irreversible Environmental Consequences

Since there is no increased probability of accident or increased consequences, and no effects on plant effluents are anticipated, HL&P has concluded, pursuant to 10CFR51, that there are no significant radiological or non-radiological impacts associated with the TWOC.

HL&P requests the TWOC to TS 3/4.1.3.3 to be able to close the reactor trip breakers prior to declaring DRPI operable. The effective duration of the TWOC is requested to extend 168 hours (7 days) from the time the trip breakers are closed. HL&P estimates the breakers will be closed on March 29, 1993.

The STP Plant Operations Review Committee has reviewed the proposed request for a TWOC and concurs with its content.

If you have any questions, please contact Mr. A. W. Harrison at (512) 972-7298 or me at (512) 972-7921.


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