



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE PUMP AND VALVE TESTING PROGRAM RELIEF REQUEST

TEXAS UTILITIES ELECTRIC COMPANY

COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 1

DOCKET NO. 50-445

INTRODUCTION

By letter dated January 28, 1991, TU Electric Company (the licensee) submitted a request for relief from the ASME Code, Section XI, IWV-3520 requirements relative to the full-stroke testing of the Residual Heat Removal (RHR) pump discharge check valves.

DESCRIPTION AND DISCUSSION

Relief Request Number 14.2

The licensee has requested relief from the full-stroke exercising requirement of IWV-3520 for the residual heat removal system pump discharge check valves 1-8730 A/B and proposed to partial stroke test the valves quarterly and to full stroke test the valves each refueling outage.

Licensee's Basis for Relief

These check valves cannot be full-stroke exercised during power operation because the full flow path discharges into the Reactor Coolant System (RCS). These check valves cannot be full-stroke exercised during cold shutdown because insufficient volume exists in the RCS for injection.

EVALUATION

These valves cannot be full-stroke exercised quarterly during power operation because the RHR pumps do not develop sufficient pressure to overcome normal reactor coolant system (RCS) pressure. The ASME Code IWV-3520 states, in part, that if valves cannot be full-stroke exercised quarterly during operation, the valves shall be part-stroke exercised quarterly and full-stroke exercised during cold shutdown.

The licensee is currently assessing the capability of the flow path from the RHR pumps through the Refueling Water Storage Tank (RWST) return line to safely pass full-flow and satisfactorily demonstrate valve performance during cold shutdown. In the interim, the licensee has proposed to partial-stroke exercise these valves with flow quarterly using a 3/4-inch line and full-stroke exercise the valves each refueling outage.

9102150012 910208
PDR ADOCK 05000445
P PDR

The staff believes that it may be practical to full-stroke exercise the valves during cold shutdown using the normal shutdown cooling flow path. If a determination is made in the assessment that RHR to RWST return line is not a viable full-flow path, the licensee must assess the feasibility of full-stroke exercising the valves using the shutdown cooling flow path during cold shutdown. The staff is requesting that these alternative flow paths be evaluated, as necessary, prior to the scheduled refueling outage of September 1991.

In its letter dated January 28, 1991, the licensee committed to modify or withdraw, as appropriate, its relief requests relative to the suction and discharge check valves, if the RWST return line from the RHR pumps is found to be a viable, full flow test path, sufficient to allow full-stroke testing during cold shutdown. If such a finding is made, the staff finds it acceptable for Comanche Peak Unit 1 to continue plant operation until the next cold shutdown of sufficient duration (as described in ASME Section XI) to allow full-stroke testing of the RHR pump suction and RHR pump discharge check valves. This acceptability finding is further based on the acceptable condition of these valves as demonstrated during the full flow testing performed in January 1990.

CONCLUSION

An interim period is necessary to give the licensee time to complete their assessment. Immediate compliance would result in a plant shutdown, which would be an unreasonable burden to the licensee. The licensee's proposed alternative should provide reasonable assurance of operational readiness in the interim since the valves were full-flow tested in January 1990 and partial-flow tested with over 75 percent of flow in November 1990. Considering the recent testing performed by the licensee, the additional alternative testing that the licensee has committed to perform during this period, along with the low probability of a check valve failure concurrent with an event necessitating the use of this safety system, sufficient basis exists to ensure adequate protection of public health and safety. The staff has determined that granting relief, pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law and will not endanger life or property, or the common defense and security and is otherwise in the public interest. In making this determination, the staff has considered the alternate testing being implemented, compliance resulting in a hardship without a compensating increase in safety, and the impracticality of performing the required testing considering the burden if the requirements were imposed. This interim relief is granted until the first refueling outage, which is scheduled for September 1991.

Principal Contributor: Kenneth C. Dempsey
James W. Clifford