



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
REQUEST FOR RELIEF FROM AN ASME SECTION XI CODE REQUIREMENT
SOUTH TEXAS PROJECT, UNITS 1 AND 2
DOCKET NOS. 50-498 AND 50-499

1.0 INTRODUCTION

In a letter dated March 5, 1992, Houston Lighting & Power Company (the licensee) submitted a request for relief from the hydrostatic testing requirements contained in Paragraphs IWD-5223(a), IWA-4400, and IWA-4600 of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (the Code). The request involves relief from the requirements to perform hydrostatic tests on the Essential Cooling Water (ECW) system. The ECW system is an ASME Class 3 low pressure (design pressure of 120 psi) system which provides cooling water to various safety-related systems for normal plant operation as well as during and after postulated Design Basis Accidents (DBAs).

2.0 DISCUSSION

The licensee stated that the hydrostatic testing is difficult to perform because the butterfly valves used throughout the ECW System are not designed to provide a leak-tight boundary. As a result, performance of a hydrostatic test requires the temporary replacement of butterfly valves with blanks so that the required pressure can be maintained. The associated times for the installation and removal of the blanks, as well as the required draining and filling of the ECW system make it difficult to perform repairs within the 72 hour allowed outage time of the Technical Specifications and generally adversely impact the availability of the ECW system.

System integrity would be ensured by routine monitoring of the ECW system during operation and by performance of a VT-2 visual examination at nominal operating pressure whenever the Code requires hydrostatic testing. Other considerations include margin in the cooling capacity of the ECW system such that the safety function of the system can be provided without maintaining a totally leak-tight boundary.

3.0 EVALUATION

The alternate testing proposed by the licensee and routine monitoring of the ECW system during operation provide adequate assurance of system integrity while the increased availability of the ECW system provided by not performing the hydrostatic testing is desirable in terms of improving plant safety.

Based upon its review of the licensee's submittal, the staff has concluded that relief from the Code hydrostatic testing requirements for the ECW system is appropriate pursuant to 10 CFR 50.55a(a)(3)(ii) due to the hardship of performing such testing without a compensating increase in safety and that the granting of such relief is authorized by law, will not endanger life or property, or the common defense and security, and is otherwise in the public interest.

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Dated: April 21, 1992