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R. J. GARY
EXECUTIVE VICE PRESIDENT
AND GENERAL MANAGER

August 9, 1983
TXX-4023

Mr. G. L. Madsen, Chief
Reactor Project Branch 1
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76012

Docket Nos.: 50-445
50-446

COMANCHE PEAK STEAM ELECTRIC STATION
INADEQUATE OVERPRESSURE PROTECTION FOR
SPENT FUEL POOL COOLING HEAT EXCHANGERS COMPONENT COOLING WATER
QA FILE: CP-83-17, SDAR-118
FILE NO.: 10110

Dear Mr. Madsen:

In accordance with 10CFR50.55(e), we are submitting the enclosed report of actions taken to correct a deficiency regarding the relief valves for the component cooling water side of the spent fuel pool cooling heat exchangers which were set for incorrect back-pressure conditions.

Supporting documentation is available at the CPSES site for your Inspector's review.

Very truly yours,

R. J. Gary

RJG:ln
Enclosure

cc: NRC Region IV - (0 + 1 copy)

Director, Inspection & Enforcement (15 copies)
U. S. Nuclear Regulatory Commission
Washington, DC 20555

IE-27

ATTACHMENT

INADEQUATE OVERPRESSURE PROTECTION FOR SPENT FUEL POOL COOLING HEAT EXCHANGERS COMPONENT COOLING WATER

DESCRIPTION

During an unrelated evaluation, site engineering discovered the relief valves for the component cooling water side of the spent fuel pool cooling heat exchangers were set for incorrect back-pressure conditions. The valves were set to relieve at the system design pressure of 150 psig with a back-pressure of 55 psig. In the condition observed, the back-pressure was approximately 110 psig resulting in an actual relief pressure of about 205 psig (35% above design) in the event of an overpressure incident. Further investigation has indicated several additional components within the non-safeguards loop of the component cooling water system, including the entire non-safeguards loop itself, have similar overpressure protection discrepancies. The results of this evaluation are attached.

These relief valve deficiencies affect overpressure protection only of an isolated component (or the entire isolated loop). In a normal operating configuration overpressure protection is unaffected. None of the non-safeguards loop is required to function to support a safe reactor shutdown, but one non-safeguards loop of the two (Unit 1 or Unit 2) is required to provide adequate spent fuel pool cooling. The failure of a component or portion of the loop while isolated is not a safety problem, nor would failure be expected to occur with the pressures involved. The safety implications arise from the potential for restoring to operation a portion of the system which may have been degraded by an inadequately relieved overpressure incident reason to expect that it could not happen to both non-safeguards loops, or portions thereof, thus rendering indeterminate the ability of both loops to withstand their design conditions.

SAFETY IMPLICATIONS

In the event the condition had gone undetected, the potential exists for a common mode failure of both spent fuel pool cooling trains.

CORRECTIVE ACTIONS

The pressure relief piping and valve configuration of components identified per the attached have been evaluated. Where required, site nonconformance reports will be issued to identify and control system modifications. The modifications will consist primarily of pressure relief valve rework and/or piping reroutes to avert excessive back-pressure.

All required nonconformance reports will be issued by August 12, 1983. Piping reroutes and valve rework should be specified as required no later than September 1, 1983 and November 15, 1983, respectively.

CCW NON-SAFEGUARDS LOOP RELIEF VALVE CONFIGURATIONS PROVIDING INADEQUATE PRESSURE RELIEF

COMPONENT AFFECTED	RELIEF VALVE	SET/BACKPRESSURE	EXPECTED SYSTEM BACKPRESSURE	RESULTING RELIEF PRESSURE
Spent Fuel Pool Cooling Heat Exchangers	XCC-52 XCC-61	150/55 psig	~110 psig	~205 psig
Recycle Evaporator Evaporator Condenser	XCC-152	150/67 psig	~110 psig	~193 psig
Waste Evaporator Evaporator Condenser	XCC-20	150/67 psig	~110 psig	~193 psig
Floor Drain Evaporator Evaporator Condenser	XCC-37	150/67 psig	~110 psig	~193 psig
Seal Water Hx	1CC-336	150/68 psig	~110 psig	~192 psig
Letdown Hx	1CC-327	150/68 psig	~110 psig	~192 psig
Non-Safeguards Loop	1CC-042	150/78 psig	~110 psig	~182 psig

NOTES: System design pressure is 150 psig. System hydrostatic test pressure is 188 psig.