SPECIAL REPORT
LOW WATER LEVEL IN FIRE TANKS
DOCKET 50-366
July 31, 1979

Initial Condition

On 7-18-79 at about 2200 CST during operation of Unit 2 at 1092 MWt (323 MWe) and Unit 1 shutdown for refueling/maintenance, the Unit 2 circulating water system was being chlorinated. Water for the chlorination process was obtained from the fire protection system since the normal source of water was unavailable due to Unit 1 being shutdown.

Nature of Occurrence:

At about 2200 CST the water levels in the two fire tanks decreased to below the required level of 270,000 gallons as required in Unit 1 Tech Spec Section 3.13.2 and Unit 2 Tech Spec Section 3.7.6.1. It is estimated that at least 206,000 gallons and 234,000 gallons were in the tanks when the low level was discovered.

Immediate Corrective Action:

The fire tank levels were returned to greater than 270,000 gallons within one hour after discovery of the low levels.

Cause:

The deep well pumps which supply water to the fire tanks had overpressurized and tripped. Had they not tripped, these pumps would have had adequate flow capacity to keep up with the chlorination requirements.

Supplemental Corrective Action:

A new source of water supply for the chlorination system is being engineered to eliminate the need for using fire protection water for chlorination of Unit 2 when the Unit 1 circulating water system is out of service.

An investigation revealed that pressure switch P21-N505, which trips the well pumps, was set lower than its design value of 140 psi. The switch was re-calibrated to the correct value.

Status of Redundant or Backup Systems:

The service water cross-tie with the fire protection system was available during the period of low level.

Impact to Other Units:

The fire tank low levels impacted both units since the fire protection system is common to both units.

Justification for Continued Operation:

The level in the fire tanks were returned to normal within one hour after the occurrence.

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