

DUKE POWER COMPANY
OCONEE UNIT 2

Report No.: UE-270/75-12

Report Date: August 27, 1975

Event Date: July 25, 1975

Facility: Oconee Unit 2, Seneca, South Carolina

Identification of Event: Failure of quench tank level instrumentation

Conditions Prior to Event: Unit at 100 percent full power

Description of Event:

On July 25, 1975, the component drain pump failed while pumping down the quench tank. The cause of the failure was determined to be due to pumping with a low quench tank level. It was noted that the quench tank level, as indicated on the quench tank level instrumentation, did not drop below 90 inches while pumping. On July 26, 1975, all level instrumentation, with the exception of the level transmitter, was checked and found to be operating properly. A gauge on the suction of the component drain pump was utilized to maintain level indication until August 2, 1975, at which time instrument technicians could enter the Reactor Building. It was determined that the upper impulse line water leg was partially drained. This caused quench tank level instrumentation to indicate high.

Designation of Apparent Cause of Event:

The upper impulse line was examined and checked for leaks, however, no explanation has been determined for the decreased water level.

Analysis of Event:

The purpose of the quench tank is to provide quenching of pressurizer relief valves should a transient be experienced which would result in lifting of the relief valves. A rupture disc is provided on the quench tank in order to prevent overpressurization of the tank itself. Operation with inadequate water level in the quench tank would result in actuation of the rupture disc with subsequent release of reactor coolant to the Reactor Building, where it would be contained, should the relief valves lift. It is concluded that the health and safety of the public was not affected.

Corrective Action:

The impulse lines to the quench tank level transmitters were filled and the transmitter calibration was checked. The impulse lines were inspected for evidence of leakage and none was found. Since this is the first instance at Oconee, further corrective action is not considered necessary.

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