

DUKE POWER COMPANY

OCONEE UNIT 1

Report Number: RO-269/78-25

Report Date: November 27, 1978

Occurrence Date: October 26, 1978

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: RPS Channel "A", RC Pressure, Out-of-Calibration

Conditions Prior to Occurrence: Cold Shutdown Refueling

Description of Occurrence:

In May of 1978, a pressure switch on the LPI system interlocks ruptured allowing steam to fill the general area in which the RPS Channel "A" pressure transmitter (RC3APT1) is located. On September 11, 1978, during the annual RPS recalibration, this transmitter and the associated instrument string was checked and recalibrated. All components of Channel A were within the tolerances allowed in the procedure. A routine review of the "as-found" data for the entire string however revealed that the channel would have tripped at approximately 9.6 psi higher than the limits given in Technical Specifications. This, therefore, constituted operation of the unit with an RPS trip setpoint less conservative than that allowed by Technical Specifications.

Apparent Cause of Occurrence:

The cause of the transmitter failure was apparently the effect of the temperature/humidity changes associated with the pressure switch failure in May. The error was not immediately identified due to a procedural deficiency which failed to adequately account for the adding of several relatively small errors. The actual cause of the occurrence was, however, an electronic drift in the transmitter caused by the unusual service conditions described above.

Analysis of Occurrence:

The RPS contains four independent redundant channels. The system logic is such that the RPS trips on indication from 2-out-of-4 channels. The error in one channel did not effect the ability of the system to perform its safety function since three channels were operating within the required range. Thus, the occurrence did not endanger public health and safety.

Corrective Actions:

The transmitter involved was recalibrated. The procedure is being reviewed and corrective action will be taken, as appropriate, to assure more timely identification of similar problems.

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