

BOSTON EDISON COMPANY
PILGRIM NUCLEAR POWER STATION
DOCKET NO. 50-293

Attachment to LER 80-032/01T-0

At 2000 hours on July 24, 1980, PNPS personnel received a preliminary copy of a memo from the BECo. Nuclear Engineering Department to the Nuclear Operations Manager which addressed recommended calibration changes to safety related Yarway level instrumentation. These calibration changes were necessary to correct for higher reference leg temperatures than initially used to derive calibration data.

This memo was a result of a series of events which began in October of 1979 when PNPS personnel requested an in-depth study of G.E. SIL#299 be conducted by the NOD Plant Support Group. In the review of SIL#299, the possibility that conditions existing at PNPS warranted further investigation and evaluations of the real potential for "flashing" to occur.

The preliminary review indicated that even without the small break LOCA condition identified in SIL#299, there appeared to be higher drywell ambient temperatures than used for original Yarway calibration. Set point changes were recommended and a Plant Design Change Request was generated to instrument the water level columns to obtain actual operating conditions. PNPS was conducting a refueling outage at this time and it was decided not to make any unsubstantiated changes in set points until actual operating conditions were verified, since the potential for inadvertent cold water injections as a result of increasing the set point would create undue thermal stresses.

PNPS Instrument and Control personnel gathered information from the sensors installed during the outage and forwarded the data to the Plant Support Group. The results of the review of this data was presented to PNPS in draft form without Nuclear Operations Manager concurrence on July 17, 1980. Since independent review by the Nuclear Engineering Department and concurrence by the Nuclear Operations Manager had not been conducted, no action was taken at this time.

On July 24, 1980 after independent review by NED and confirmation with Yarway representatives, a memo was forwarded to the Nuclear Operations Manager recommending a zero adjust of five (5) inches. It was a copy of this memo which was forwarded to the Instrument and Control Supervisor that initiated actions to re-calibrate the level instruments.

PNPS calibration procedures were revised, reviewed and approved on July 25, 1980 and the zero adjust calibrations were commenced on July 26, 1980. The station had been shut down on July 25, 1980 to conduct scram testing per IE Bulletin 80-17.

While re-calibrations were in progress, the reactor was brought critical and a power ascension was commenced to perform the automatic scram portion of IE Bulletin 80-17. Calculations were made to determine maximum drywell temperatures that would not violate Yarway setpoints and recording of these temperatures every half hour were commenced.

At approximately 1730 on July 26, the drywell temperature exceeded the calculated maximum values. The Watch Engineer was notified at 1800 hours that the reference leg average temperature had been exceeded and that three of the safeguard yarways were still not calibrated.

The reactor was scrammed at 1832 and drywell temperatures below calculated maximum by 1930. The re-calibration of remaining yarways was completed prior to return to power.