

Report Number: 79-29/03L
Report Date: 4/19/79
Occurrence Date: 3/20/79
Facility: Salem Generating Station
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Inoperable Nuclear Instrumentation Channel N-41

CONDITIONS PRIOR TO OCCURRENCE:

Operational Mode 1
Reactor Power 97%

DESCRIPTION OF OCCURRENCE:

While performing a functional test of power range nuclear instrumentation channel N-41, the high voltage was found to be 240 volts less than required. Technical Specification 3.3.1.1 Action Statement 2 was implemented at 1155 hours and channel bistables were placed in the tripped condition. The channel was repaired and returned to service at 1440 hours after the functional test was satisfactorily completed. The Action Statement was terminated when the channel was returned to service.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

This occurrence was caused by the breakdown of a diode in the high voltage power supply.

ANALYSIS OF OCCURRENCE:

Technical Specification 3.3.1.1 Action 2 requires that with the number of operable channels one less than the total number of channels, startup and/or power operation may proceed provided the following conditions are satisfied:

- a. The inoperable channel is placed in the tripped condition within one hour.
- b. The minimum channels operable requirement is met; however, one additional channel may be bypassed for up to two hours for surveillance testing per Specification 4.3.1.1.
- c. Either thermal power is restricted to $\leq 75\%$ of rated thermal and the power range, neutron flux trip setpoint is reduced to $\leq 85\%$ of rated thermal power within four hours; or, the quadrant power tilt ratio is monitored at least once per 12 hours.

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The channel bistables were immediately placed in the tripped condition. The channel was returned to service within 3 hours and 25 minutes, therefore, Q.P.T.R. monitoring was not required.

CORRECTIVE ACTION:

The diode was replaced and the functional test was completed satisfactorily to verify channel operability.

FAILURE DATA:

Not Applicable

Prepared By A. W. Kapple

SORC Meeting No. 27-79

 H. J. Infelusa
Manager - Salem Generating Station

