



Public Service Electric and Gas Company P.O. Box E Hancocks Bridge, New Jersey 08038

Salem Generating Station

October 20, 1982

Mr. R. C. Haynes
Regional Administrator
USNRC
Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Haynes:

LICENSE NO. DPR-75
DOCKET NO. 50-311
REPORTABLE OCCURRENCE 82-107/03L

Pursuant to the requirements of Salem Generating Station Unit No. 2, Technical Specifications, Section 6.9.1.9.b, we are submitting Licensee Event Report for Reportable Occurrence 82-107/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks *jsf*

CC: Distribution

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PDR ADOCK 05000311
S PDR

The Energy People

IEU

Report Number: 82-107/03L
Report Date: 10-20-82
Occurrence Date: 09-23-82
Facility: Salem Generating Station, Unit 2
Public Service Electric & Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Axial Flux Distribution - Out of Specification.

This report was initiated by Incident Report 82-300.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 81% - Unit Load 900 MWe.

DESCRIPTION OF OCCURRENCE:

At approximately 1224 hours, September 23, 1982, during routine operation, the Control Room Operator observed that the turbine generator stator water temperature had increased. A turbine load reduction was commenced to decrease the heat load on the stator cooling water and automatic control rod insertion occurred in response to the change in Tave-Tref. At 1225 hours, as a result of rod insertion, axial flux distribution (AFD) went out of the +6, -9% target band, and Technical Specification Action Statement 3.2.1.a.2 was entered. Reactor power was stabilized at 58%. Boration was commenced to allow control rod withdrawal and return of AFD to the target band. At 1230 hours, AFD was within specification with a total penalty deviation of 5 minutes accumulated. AFD remained within the limits of Technical Specification Figure 3.2-1 throughout the transient.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The increase in turbine stator cooling water temperature resulted from Valve 2ST1 drifting closed. Investigation of the problem revealed that the valve positioner ports had become clogged, causing the valve to close.

ANALYSIS OF OCCURRENCE:

Limits on AFD insure core thermal limits are not exceeded during normal operation, including periods of xenon redistribution. The AFD band also insures that the initial core thermal conditions assumed for events analyzed in the FSAR are met. During rapid plant thermal power reduction, however, control rod motion will cause the AFD to deviate from the target band. This deviation will not affect xenon distribution sufficiently to change the peaking factor envelope upon return to power, provided thermal power, total deviation and duration are controlled.

Action Statement 3.2.1.a.2 requires:

Between 50% and 90% of rated thermal power, power operation may continue, provided the indicated AFD has not been outside of the +6, -9% target band for more than 1 hour penalty deviation cumulative during the previous 24 hours, and the indicated AFD is within the limits of Figure 3.2-1 of the Technical Specifications; otherwise, reduce thermal power to less than 50% of rated power within 30 minutes and reduce the Power Range Neutron Flux-High trip setpoints to less than or equal to 55% of rated thermal power within the next 4 hours.

As noted, the plant was maintained within the limits specified in the action statement, and consequently no risk to the health or safety of the public was involved. The event constituted operation in a degraded mode permitted by a limiting condition for operation, and is reportable in accordance with Technical Specification 6.9.1.9.b.

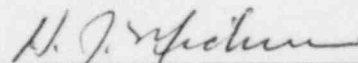
CORRECTIVE ACTION:

As noted, the AFD was returned to within specification at 1230 hours, September 23, 1982, and Action Statement 3.2.1.a.2 was terminated. Valve 2ST1 positioner was disassembled and cleaned, then rebuilt. The valve was satisfactorily tested and restored to service September 24, 1982.

FAILURE DATA:

Not Applicable

Prepared By R. Frahm



General Manager -
Salem Operations

SORC Meeting No. 82-94B