



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

Salem Generating Station

July 21, 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 82-057/03L

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 82-057/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks *952*

CC: Distribution

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PDR ADOCK 05000311
S PDR

The Energy People

IE22

Report Number: 82-057/03L
Report Date: 07-21-82
Occurrence Date: 06-30-82
Facility: Salem Generating Station, Unit 2
Public Service Electric & Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Axial Flux Difference - Out Of Specification.

This report was initiated by Incident Report 82-164.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 100% - Unit Load 1140 MWe.

DESCRIPTION OF OCCURRENCE:

At 1837 hours, June 30, 1982, during routine operation, the Control Room Operator received a low level alarm on No. 2A Feedwater Heater and Moisture Separator-Reheater Drain Tank. The operator noticed decreasing load on No. 21 Heater Drain Pump and decreasing feedwater pump suction pressure. Moments later, No. 22 Feedwater Pump tripped due to low suction pressure. The operator immediately started all auxiliary feedwater pumps, bypassed the condensate polishing system, and started decreasing turbine load. With rod control in automatic, control rod insertion commenced, to counteract net positive reactivity inserted due to the power defect. At 1838 hours, due to rod insertion, Axial Flux Distribution (AFD) went out of the +6, -9% target band, and Technical Specification Action Statement 3.2.1.a was entered. Shortly after, reactor power stabilized at 74%, and boration was commenced to restore the rod program to normal. No. 22 Feedwater Pump was reset, and returned to service at 1850 hours, and the auxiliary feedwater pumps were de-energized. By 1857 hours, AFD had returned to within the target band, with a total penalty deviation of 19 minutes accumulated. The AFD remained within the limits of Technical Specification Figure 3.2-1 throughout the transient.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

At the time of the occurrence, No. 26A Feedwater Heater was being placed in service. The operator involved was experienced in conducting the evolution and was certain that operating instructions were properly followed. No previous feedwater pump trips have been related to placing a high pressure heater in service. The event was therefore attributed to an isolated situation where steam or non-condensable gases were trapped in heater drain piping and caused a reduction of heater drain pump flow and subsequent decrease in feedwater pump suction.

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 Specification; 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.

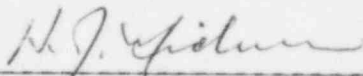
CORRECTIVE ACTION:

With AFD back in the target band, at 1857 hours, June 30, 1982, Action Statement 3.2.1.a.2 was terminated and power escalation was commenced. A review of applicable operating instructions is being conducted in an attempt to identify possible changes which may prevent recurrence of the event. In view of the isolated nature of the incident, no further action was deemed necessary.

FAILURE DATA:

Not Applicable.

Prepared By R. Frahm


General Manager -
Salem Operations

SORC Meeting No. 82-69