



**PSEG**

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

Salem Generating Station

August 25, 1982

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

Dear Mr. Haynes:

LICENSE NO. DPR-70  
DOCKET NO. 50-272  
REPORTABLE OCCURRENCE 82-059/03L

Pursuant to the requirements of Salem Generating Station Unit No. 1, Technical Specifications, Section 6.9.1.9.b, we are submitting Licensee Event Report for Reportable Occurrence 82-059/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura  
General Manager -  
Salem Operations

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CC: Distribution

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The Energy People

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Report Number: 82-059/03L  
Report Date: 08-25-82  
Occurrence Date: 08-09-82  
Facility: Salem Generating Station, Unit 1  
Public Service Electric & Gas Company  
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Source Range Neutron Flux Channel 1N31 - Inoperable.

This report was initiated by Incident Report 82-223.

CONDITIONS PRIOR TO OCCURRENCE:

Mode III - Rx Power 0% - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

At 1750 hours, August 9, 1982, during routine operation, the Control Room Operator discovered that Source Range Neutron Flux Channel 1N31 indication had failed to the low end of the scale. The Loss of Detector Voltage alarm on the channel drawer was also observed, and the channel was declared inoperable. At the time of the occurrence, however, the Reactor Trip System breakers were in the open position, and operability of the channel was not required by the Technical Specifications. At 1842 hours, the reactor trip breakers were closed, and the Control Rod Drive System was capable of rod withdrawal. With Channel 1N31 still inoperable, Limiting Condition for Operation 3.3.1.1 Action 4a became applicable and was entered. The redundant source range channel was operable and the thermal power was maintained below  $6 \times 10^{-11}$  amps in the intermediate neutron flux range (Setpoint P-6) throughout the occurrence.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The failure of the source range channel was due to a failed high voltage power supply. No recent failures of the supply have been noted, and the problem was assumed to be of an isolated nature.

ANALYSIS OF OCCURRENCE:

Operability of the source range neutron flux instrumentation is necessary to provide shutdown flux monitoring capabilities. The channel also provides a reactor trip in the event of a power excursion initiated from below the point of adding of heat to the Reactor Coolant System. Proper operation of the trip function is consistent with assumptions used in accident analyses in the FSAR. Since the redundant trip function was operable, no risk to the health or safety of the public was involved. The occurrence 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.

Limiting Condition for Operation 3.3.1.1 Action 4a requires:

With the number of operable channels one less than the minimum channels required and with the thermal power below setpoint P-6, restore the inoperable channel to operable status prior to increasing thermal power above setpoint P-6.

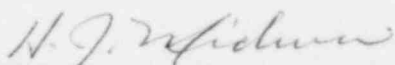
CORRECTIVE ACTION:

As noted, thermal power was maintained below Setpoint P-6, in compliance with the action statement. The failed high voltage power supply was replaced with a spare, and the output was adjusted to the required voltage. Channel 1N31 was declared operable at 1950 hours, August 9, 1982, and Limiting Condition for Operation 3.3.1.1 Action 4a was terminated. No further action was deemed necessary in view of the isolated nature of the occurrence.

FAILURE DATA:

Westinghouse Electric Corp.  
Source Range Power Supply  
Folio No. 402632

Prepared By R. Frahm

  
General Manager -  
Salem Operations

SORC Meeting No. 82-78