PSE&G

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

Salem Generating Station

October 27, 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 82-124/03L

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 82-124/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks

CC: Distribution

IE22

Report Number: 82-124/03L

Report Date: 10-27-82

Occurrence Date: 10-11-82

Facility: Salem Generating Station, Unit 2
Public Service Electric & Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Reactor Coolant Loops - Inoperable.

This report was initiated by Incident Report 82-348.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 82% - Unit Load 900 MWe.

DESCRIPTION OF OCCURRENCE:

At 0849 hours, October 11, 1982, due to underfrequency signals on the Nos. 2F and 2H Group Buses, a reactor trip occurred. All reactor coolant pumps (RCP's) tripped automatically, and natural circulation heat removal was commenced. Following the reactor trip, the plant was in Mode 3 of operation. With no pumps operable, Technical Specification Action Statements 3.4.1.2.a and b were entered. Prompt notification to the NRC was performed at 0853 hours, in accordance with Emergency Procedure EPI-1. At 0927 hours, No. 21 RCP was started and Action Statement 3.4.1.2.b was terminated. Since less than two reactor coolant loops were operable, however, Action Statement 3.4.1.2.a remained in effect. No change in reactor coolant boron concentration occurred during the incident.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The underfrequency signals resulted from the failure of the No. 2A Diesel Generator local annunciator power supply. AC noise originating in the power supply was fed back to the underfrequency relays via the No. 2AADC Bus. Similar failures of this type of power supply have been observed on an isolated basis.

ANALYSIS OF OCCURRENCE:

In mode 3 operation, a single reactor coolant loop provides sufficient heat removal capability for removing decay heat; single failure considerations require that two loops be operable. Operation of one RCP provides adequate flow to ensure mixing, prevent stratification and produce gradual reactivity changes during boron concentration changes. All RCP's may be de-energized for up to 1 hour provided that the core outlet temperature is maintained at least 10°F below saturation temperature.

ANALYSIS OF OCCURRENCE: (continued)

Since flow was restored within 1 hour, and no excessive core outlet temperatures were involved, the occurrence constituted no risk to the health or safety of the public. The event involved 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.

Action Statement 3.4.1.2.b requires:

> With no reactor coolant loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required loop to operation.

Action Statement 3.4.1.2.a requires:

> With less than two reactor coolant loops operable, restore two loops to operable status within 72 hours or be in hot shutdown within the next 12 hours.

CORRECTIVE ACTION:

As noted, no reduction in boron concentration occurred and coolant flow was restored, in compliance with the action statements. No. 23 RCP was started at 0937 hours, October 11, 1982, and Action Statement 3.4.1.2.a was terminated. The failed power supply was replaced and no further noise problems have been noted. Design Change Request 2SC-1060 has been submitted to isolate the underfrequency relays from this type of noise problem. In view of the isolated nature of the power supply failure, no further corrective action was deemed necessary.

FAILURE DATA:

The Riley Co.
Panalarm Power Supply
Part No. 75-PCD-25

Prepared By R. Frahm

H J Midura

General Manager -
Salem Operations

SORC Meeting No. 82-96