PSE&G

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

Salem Generating Station

March 10, 1983

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 83-014/03L

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 83-014/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks JJZ

CC: Distribution

IE22

Report Number: 83-014/03L

Report Date: 03-07-83

Occurrence Date: 02-09-83

Facility: Salem Generating Station Unit 1
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Reactor Coolant System - Leakage Detection Systems - Containment Sump Monitoring System - Inoperable.

This report was initiated by Incident Report 83-038.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 4 - RX Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

At 1730 hours, February 9, 1983, during routine shutdown operation, the Control Room Operator discovered that the auxiliary alarm typewriter had failed. Since containment sump pump start and stop times are printed out on the typewriter, the failure rendered the Containment Sump Monitoring System inoperable. Appropriately, Technical Specification Action Statement 3.4.6.1 was entered. A meter was temporarily connected to monitor containment sump pump operation directly. Redundant Reactor Coolant System (RCS) leakage detection systems were operable throughout the occurrence.

APPARENT CAUSE OF OCCURRENCE:

Investigation of the problem with the auxiliary alarm typewriter revealed that the failure had resulted from a failed printed circuit board in the Auxiliary Annunciator System. No recent failures of this type had been noted; several previous instances where problems with annunciator sytem circuit boards had resulted in inoperability of the Containment Sump Monitoring System have been documented (See LERs 80-015/03L and 81-095/03L).

A number of other cases where failures of the auxiliary alarm typewriter itself had occurred are also documented. The dependence of the Containment Sump Monitoring System on the auxiliary alarm typewriter for indication underlies the occurrence.

ANALYSIS OF OCCURRENCE:

The Containment Sump Monitoring System is utilized as an RCS leakage detection system to monitor and detect leakage from the Reactor Coolant Pressure Boundary. The boundary is one of multiple fission product boundaries required to contain radioactive fission products

ANALYSIS OF OCCURRENCE: (cont'd)

during accident conditions. Since the redundant leakage detection systems were operable, and no degradation of the boundaries occurred, the event involved no risk to the health and safety of the public. Due to the loss of redundancy, the occurrence constituted operation in a degraded mode permitted by a limiting condition for operation. The event is therefore reportable in accordance with Technical Specification 6.9.1.9b.

Action Statement 3.4.6.1 requires:

> With only two of the above required leakage detection systems operable, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactivity monitoring system is inoperable; otherwise, be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

CORRECTIVE ACTION:

With the temporary meter installed, indication of containment sump pump operation was regained. The Containment Sump Monitoring System was declared operable and Action Statement 3.4.6.1 was terminated at 2145 hours, February 9, 1983. The Auxiliary Annunciator System vendor was contacted; the vendor identified the problem and replaced the failed circuit board. The system including the typewriter was satisfactorily tested and restored to service on February 13, 1983. Due to the recurrence of this type of problem, Design Change Request 1SC-0900 has been submitted to install overhead annunciators for direct indication of containment sump pump operation. Implementation of the design change commenced December 2, 1982.

FAILURE DATA:

Rochester Instrument Systems, Inc.
Disk Interface Module
Model RA-1814

Prepared By R. Frahm

General Manager -
Salem Operations

SORC Meeting No. 83-028