PSEG

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

Salem Generating Station

June 8, 1987

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

SALEM GENERATING STATION
LICENSE NO. DPR-70
DOCKET NO. 50-272
UNIT NO. 1
REPORT 87-4
SPECIAL REPORT

This Special Report describes the circumstances surrounding a Service Water leak inside the containment. This report is being submitted within fourteen days of the occurrence in accordance with the reporting requirements of I.E. Bulletin 80-24.

Sincerely yours,

J. M. Zupko, Jr.
General Manager-
Salem Operations

RKH:pc

Distribution

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SPECIAL REPORT NUMBER 87-4

PLANT IDENTIFICATION:

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

IDENTIFICATION OF OCCURRENCE:

SERVICE WATER LEAK INSIDE CONTAINMENT - NO. 11 CONTAINMENT FAN COIL UNIT LOWER COOLER LEAK DUE TO LOOSE BOLTS ON THE END BELL

Event Date(s): 05/27/87

Report Date: 06/08/87

This report was initiated by Incident Report No. 87-201

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 100% - Unit Load 1152MWe

DESCRIPTION OF OCCURRENCE:

On May 27, 1987, during routine power operation, the shift noticed an increase of approximately .25 gpm in the containment sump leak rate. Subsequent performance of a Reactor Coolant System (RCS) Inventory did not indicate a leak from the Chemical Volume and Control System (CVCS) or the RCS. Therefore, a containment entry was performed and it was discovered that No. 11 Containment Fan Coil Unit (CFCU) had developed a leak in the lower cooler end bell gasket. The CFCU was isolated and Technical Specification Action 3.6.2.3.a was entered at 1606 hours. The NRC was notified at 1627 hours the same day. Subsequently, on May 28, 1987, at 1950 hours, No. 11 CFCU was restored to operable status and Action Statement 3.6.2.3.a was terminated.

APPARENT CAUSE OF OCCURRENCE:

Upon investigation, the CFCU lower cooler end bell was found to have a leaking gasket. The bolts on the end bell were retorqued and the leakage stopped. No other leaking gaskets were discovered.

ANALYSIS OF OCCURRENCE:

An increase in containment sump inleakage is the primary indication of the development of RCS or other system leakage. Continuous monitoring of the sump inleakage allows early detection of a potential problem and provides a basis for initiation of appropriate actions to identify, isolate, and repair the leak.

Performance of an RCS water inventory balance in conjunction with a containment entry to locate the source of the inleakage is the appropriate action.

ANALYSIS OF OCCURRENCE: (cont'd)

The unavailability of one CFCU does not significantly affect the ability to provide containment cooling. During normal operation there are one or more idle CFCUs, depending on containment temperature. During an accident condition, the remaining CFCUs are able to provide adequate redundancy to the Containment Spray System for cooling and depressurizing the containment.

As demonstrated by this occurrence, minor leakage can be detected through monitoring and observing a change in containment sump level increase and following the established administrative controls. Leakage can also be detected via sampling.

Due to the small size of this leak (.25 gpm), had it remained undetected during a LOCA, it would have had negligible immediate impact on boron concentration, chloride contamination, and pH levels. Over the long term (post LOCA), the inleakage would be detected through RCS sampling, allowing selected isolation of the leaking CFCU. These concerns are adequately addressed by the current plant design and administrative controls in effect.

Based upon the above analysis, this occurrence involved no undue risk to the health and safety of the public. Additionally, no equipment damage resulted from the service water leak. However, all service water leaks inside containment are reportable in accordance with I.E. Bulletin No. 80-24.

CORRECTIVE ACTION:

The bolts on the lower cooler end bell were retorqued and the leakage stopped. Gasketed joints for the other containment fan coil units were inspected with no further action required.

General Manager -
Salem Operations

RKH:pc

SORC Mtg. 87-040