



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

Salem Generating Station

November 24, 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 82-135/01T

Pursuant to the requirements of Salem Generating Station Unit No. 2, Technical Specifications, Section 6.9.1.8.c, we are submitting Licensee Event Report for Reportable Occurrence 82-135/01T. This report is required within fourteen (14) 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

*IEU*

Report Number: 82-135/01T  
Report Date: 11-24-82  
Occurrence Date: 11-21-82  
Facility: Salem Generating Station Unit 2  
Public Service Electric & Gas Company  
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Containment Service Water Leak - No. 25 Containment Fan Coil Unit.  
This report was initiated by Incident Report 82-428.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - RX Power 81 % - Unit Load 880 MWe.

DESCRIPTION OF OCCURRENCE:

At 1400 hours, November 21, 1982, during routine surveillance, an operator discovered a small service water leak of approximately 0.25GPM on a cooling coil of No. 25 Containment Fan Coil Unit (CFCU). The leak was isolated and prompt notification of the NRC was made by telephone at 1418 hours. Technical Specification Action Statement 3.6.2.3a was already in effect as of 0516 hours, November 20, 1982, due to planned maintenance on No. 22 Service Water Header. Both containment spray systems were operable throughout the occurrence.

APPARENT CAUSE OF OCCURRENCE:

Investigation of the problem revealed that the leakage was due to erosion of the cooling coil. The coils are fabricated of copper nickel alloy which is susceptible to erosion by the silt laden service water. Similar failures of other CFCU's have been noted, with most leaks occurring at bends where erosion is more significant.

ANALYSIS OF OCCURRENCE:

Primary containment is a design feature which insures that the release of radioactive material in the event of accident conditions will be restricted such that site boundary radiation doses will be within the limits of 10CFR100.

NRC IE Bulletin 80-24 requires that any service water leak inside the containment be considered as a degradation of the containment boundary. If containment pressure increased to the design pressure of 47 psig during an accident, there is the possibility of the release of radioactivity through the service water discharge. The occurrence therefore constituted an abnormal degradation of the containment and is reportable in accordance with Technical Specification 6.9.1.8c.

The CFCU's operate in conjunction with the containment spray systems to remove heat and radioactive contamination from the containment

ANALYSIS OF OCCURRENCE: (cont'd)

atmosphere in the event of a design basis accident. Operability of this equipment is necessary to ensure offsite radiation dose is maintained within the limits of 10CFR100.

Action Statement 3.6.2.3a requires:

With one group of the above required cooling fans inoperable and both containment spray systems operable, restore the inoperable group of cooling fans to operable status within 7 days or be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

Because the leak was immediately isolated containment integrity was maintained. Containment cooling capability was provided by the redundant CFCU's and containment spray systems. The occurrence therefore involved no risk to the health and safety of the public.

CORRECTIVE ACTION:

The leaking coil was repaired utilizing Belzona metal filler. No. 22 Service Water Header was returned to service on November 23, 1982, and the CFCU was satisfactorily tested. The unit was declared operable at 1630 hours, November 23, 1982, and Action Statement 3.6.2.3a was terminated.

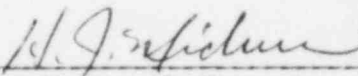
Design Change Request 2EC-0505 has been issued to replace the CFCU cooling coils with coils manufactured of AL-6X steel, for improved erosion and corrosion resistance in the service water environment. This change is scheduled for implementation during the next refueling outage. A commitment to submit a Supplemental Report upon completion was made in LER 82-070/01T.

FAILURE DATA:

A number of containment service water leaks due to similar failures of CFCU cooling coils have occurred since January 1, 1982.

Westinghouse Electric Corp.  
Containment Fan Coil Unit  
U-Tube Cooling Coil

Prepared By R. Frabm

  
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General Manager -  
Salem Operations

SORC Meeting No. 82-106