



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 82-121/03L

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 82-121/03L. This report is required within thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks *JSJ*

CC: Distribution

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PDR AD0CK 05000311
S PDR

The Energy People

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Report Number: 82-121/03L
Report Date: 10-27-82
Occurrence Date: 10-04-82
Facility: Salem Generating Station, Unit 2
Public Service Electric & Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

No. 23 Auxiliary Feedwater Pump - Inoperable.

This report was initiated by Incident Reports 82-333 and 82-334.

CONDITIONS PRIOR TO OCCURRENCE:

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

DESCRIPTION OF OCCURRENCE:

At 1703 hours, October 4, 1982, during radiographic surveillance of the internals of Check Valve 23MS46, it was discovered that the valve disc had separated from the hanger arm. The stud on the disc had broken and the portion with the nut and cotter pin were missing. The valve is a check valve in one of two steam supplies to No. 23 Auxiliary Feedwater Pump (AFP); the pump was declared inoperable and Action Statement 3.7.1.2.a was entered, retroactive to the time of discovery of the problem. The steam supplies were isolated and tagged in preparation for disassembly of the valve.

At 0345 hours, October 5, 1982, while walking through the unit Inner Penetration Area, the Shift Technical Advisor noticed an excessive amount of steam issuing from the pump vents. Investigation revealed that Valve 23MS45, Steam Isolation to No. 23 AFP was still locked open; Valve 23AF23, Auxiliary Feedwater to No. 23 Steam Generator, had been erroneously closed and tagged. The valves were immediately placed in the proper positions in accordance with the tagout. All other valves on the tagout were found in the correct position, with their tags in place. No. 21 and 22 AFP's and flow paths to the other three steam generators were operable throughout the occurrence.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

A number of problems with this type of valve have occurred, including distortion of the hanger arm and sheared studs on the disc. An engineering evaluation is being performed to determine the mechanism of the failure.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE: (continued)

The improper tagout resulted from personnel inadvertently operating the incorrect valve. The locks on the valves involved utilized the same key, allowing the wrong valve to be operated. Verification of the tagout had been performed, but failed to detect the error. The same error had occurred on August 18, 1982; due to this and other tagging problems, an investigation into possible underlying causes is underway.

ANALYSIS OF OCCURRENCE:

The operability of the Auxiliary Feedwater System ensures that the Reactor Coolant System can be cooled down to less than 350°F from normal operating conditions in the event of a total loss of offsite power. The Auxiliary Feedwater System is equipped with two parallel pumping systems for redundancy. It is designed such that should either pumping system become inoperable the redundant system is fully capable of cooling down the unit. Only 1 out of the 4 steam generators are necessary to perform this function. As noted, the redundant system and 3 steam generators were operable throughout the occurrence. The event, therefore, involved no risk to the health and safety of the general public.

Inoperability of No. 23 Auxiliary Feedwater Pump and the supply to No. 23 Steam Generator 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.

Action Statement 3.7.1.2.a requires:

With one Auxiliary Feedwater Pump inoperable, restore the required auxiliary feedwater pumps to operable status within 72 hours, or be in at least hot standby within the next 6 hours, and in hot shutdown within the following 6 hours.

The tagging incident constituted an inadequacy in the implementation of administrative and procedural controls which threatened to reduce the redundancy in engineered safety feature systems. It is therefore reportable in accordance with Technical Specification 6.9.1.9.c.

CORRECTIVE ACTION:

The missing parts of Valve 23MS46 were located and retrieved. The failed disc and hanger were replaced, and No. 23 AFP was satisfactorily tested. The pump was declared operable, and at 0247 hours, October 6, 1982, Action Statement 3.7.1.2.a was terminated. Radiography of the Type MS46 Valves is currently being conducted weekly to provide early warning of valve failures.

Personnel involved in the tagging deficiency were counseled concerning the incident. A Supplemental Report will be submitted when both the valve and tagging problems are finally resolved.

