



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

Salem Generating Station

October 20, 1982

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 82-04/03X-1
SUPPLEMENTAL REPORT

Pursuant to the requirements of Salem Generating Station Unit No. 1 Technical Specifications, Section 6.9.1.9.b, we are submitting supplemental Licensee Event Report for Reportable Occurrence 82-04/03X-1.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RH:ks *J.C.L.*

CC: Distribution

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PDR ADDCK 05000272
S PDR

The Energy People

Report Number: 82-04/03X-1

Report Date: 10-20-82

Occurrence Date: 01-09-82

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

IDENTIFICATION OF OCCURRENCE:

Positive Reactivity Addition with no Boration Capabilities.

This report was initiated by Incident Report 82-005.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 5 - Rx Power 0% - Unit Load 0 MWe

DESCRIPTION OF OCCURRENCE:

On January 8, 1982, at 1500 hours, the No. 13 Charging Pump was declared inoperable due to the Component Cooling Water System being tagged out for planned maintenance. With Nos. 11 and 12 Charging Pumps being previously tagged out for planned maintenance, Action Statements 3.1.2.1 and 3.1.2.3 were entered. At 0110 hours, January 9, a sample of the primary coolant indicated a boron concentration of 1991 PPM. The previous boron reading indicated in excess of 2000 PPM. This change in boron concentration constituted a positive reactivity change prohibited by the limiting conditions for operation of Action Statements 3.1.2.1 and 3.1.2.3. At 0110 hours, January 9, Action Statement 3.0.3 was entered.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The reason for the dilution of the boron concentration in the Reactor Coolant System (RCS) was that primary water at approximately 780 PPM drained out of the tubes of the steam generators back into the RCS resulting in an unintentional addition of positive reactivity.

ANALYSIS OF OCCURRENCE:

Technical Specification 3.1.2.1 requires:

With none of the boron injection flow paths operable, suspend all operations involving core alterations or positive reactivity changes until at least one injection path is restored to operable status.

Technical Specification 3.1.2.3 requires:

With no charging pump operable, suspend all operations involving core alterations or positive reactivity changes until one charging pump is restored to operable status.

Technical Specification 3.0.3 requires:

When a limiting condition for operation is not met except as provided in the associated action statements, within one hour action shall be initiated to place the unit in a mode in which the specification does not apply.

CORRECTIVE ACTION:

Upon detection of the addition of positive reactivity, the operators initiated rapid boration of the RCS by temporarily operating the No. 13 Charging Pump. A temporary hose connection was made to the No. 11 Component Cooling Water (CCW) Heat Exchanger to provide cooling water to the motor cooler on the No. 13 Charging Pump until the No. 12 CCW Heat Exchanger could be isolated from the header, and the header returned to service. Although the temporary hose connection on the motor cooling line to the charging pump was not a nuclear grade hose, for the purpose of being able to inject borated water into the RCS, the No. 13 Charging Pump was considered to be operable. At 2240 hours, January 9, Action Statements 3.1.2.1, 3.1.2.3 and 3.0.3 were terminated. At 0615, January 11, the cooling water was restored to the normal configuration from the CCW header to the motor cooler on the pump. At no time during the period that the temporary hose was connected did the boron concentration fall below 2000 PPM.

To preclude recurrence of the event, an On the Spot Change to the operating procedures has been written to ensure that Reactor Coolant System boration has been completed prior to stopping the last reactor coolant pump.

FAILURE DATA:

Union Pump Company
Variable speed, positive displacement pump

Prepared By R. Heller



General Manager -
Salem Operations

SORC Meeting No. 82-94B