



PSEG

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

Salem Generating Station

March 4, 1983

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 83-009/03L

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 83-009/03L. This report is required within
thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks *J. M.*

CC: Distribution

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PDR ADOCK 05000311
S PDR

The Energy People

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Report Number: 83-709/03L
Report Date: 03-03-83
Occurrence Date: 02-03-83
Facility: Salem Generating Station Unit 2
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Refueling Operations - Reactor Coolant System Boron Concentration - Out-of-Specification.

This report was initiated by Incident Report 83-035.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 6 - RX Power 0 % - Unit Load 0 MWe.

DESCRIPTION OF OCCURRENCE:

At 1610 hours, during routine shutdown operation, analysis of a sample of the Reactor Coolant System (RCS) boron concentration revealed that the concentration was 1993 ppm. This is less than the minimum of 2000 ppm required by the Technical Specifications, and Action Statement 3.9.1 was entered. All core alterations and positive reactivity additions were immediately suspended, and boration of the RCS was immediately performed to restore the concentration within specification.

APPARENT CAUSE OF OCCURRENCE:

During the period preceding the occurrence, steam generator hydrolazing utilizing demineralized water was in progress. Draining of the demineralized water into the loops resulted in the gradual dilution of the RCS boron concentration and elevation of the water level in the reactor vessel. Boron samples were being taken every several hours, and periodic boration and letdown of the RCS were being performed to maintain the boron and level in specification.

All samples immediately prior to the occurrence were within specification. The concentration indicated by the sample involved in the occurrence was within the sampling accuracy (1%) of the specification. Based on the results, the concentration could easily have been within the specification limit. No RCS system lineup problems were evident, and no inadequacies in the procedural controls were noted. The occurrence was assumed to be an isolated instance of the boron concentration approaching or slightly exceeding the specification limit during non-routine shutdown activity.

ANALYSIS OF OCCURRENCE:

The limitations on minimum boron concentration ensure that the reactor will remain subcritical during core alterations, and a uniform boron

ANALYSIS OF OCCURRENCE: (cont'd)

concentration is maintained for reactivity control in the water volume having direct access to the reactor vessel.

Action Statement 3.9.1 requires:

With the specification reactivity limits not satisfied, immediately suspend all operations involving core alterations or positive reactivity changes and continue boration at greater than or equal to 10 gpm of a solution containing greater than or equal to 20,000 ppm boron or its equivalent until Keff is reduced to less than or equal to 0.95 or the boron concentration is restored to greater than or equal to 2000 ppm, whichever is the more restrictive.

Since all operations involving core alterations and positive reactivity changes were suspended, and boration was immediately commenced, adequate reactivity control was maintained. The occurrence therefore involved no risk to the health and safety of the public. The event constituted operation in a degraded mode permitted by a limiting condition for operation, and is reportable in accordance with Technical Specification 6.9.1.9b.

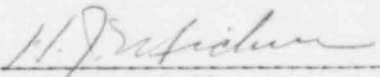
CORRECTIVE ACTION:

A 7 minute boration from the Boric Acid Storage System (greater than 20,100 ppm boron) at approximately 75 gpm was performed. At 1700 hours, February 3, 1983, sample results showed an RCS boron concentration of 2140 ppm, well within the specification limit, and Action Statement 3.9.1 was terminated. Steam generator hydrolazing was completed shortly thereafter, with no more problems noted.

FAILURE DATA:

Not Applicable

Prepared By R. Frahm



General Manager -
Salem Operations

SORC Meeting No. 83-026