



PSEG

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

Salem Generating Station

February 16, 1983

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 83-003/04L

Pursuant to the requirements of Salem Generating Station
Unit No. 1, Environmental Technical Specifications, Section
5.6.2.1, we are submitting Licensee Event Report for Reportable
Occurrence 83-003/04L. This report is required within
thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks *J&J*

CC: Distribution

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The Energy People

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Report Number: 83-003/04L
Report Date: 02-09-83
Occurrence Date: 01-21-83
Facility: Salem Generating Station Unit 1
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Concurrent Shutdown of Salem Generating Station Units 1 and 2.

This report was initiated by Incident Report 83-017.

CONDITIONS PRIOR TO OCCURRENCE:

Unit 1 - Mode 5 - RX Power 0 % - Unit Load 0 MWe.
Unit 2 - Mode 1 - RX Power 52 % - Unit Load 520 MWe.

DESCRIPTION OF OCCURRENCE:

At 2028 hours, January 21, 1983, a plant shutdown for refueling of Salem Generating Station Unit 2 was commenced. The shutdown followed a normal power coastdown to 50% power and had been scheduled since early in the previous year, based on the desired level of fuel burnout and to provide a minimum four week period of operation following the Unit 1 refueling shutdown. Unanticipated problems with steam generator eddy current testing and service water piping to No. 12 Component Cooling Heat Exchanger delayed the Unit 1 restart for approximately 7 weeks. Due to the delay, an unintentional concurrent shutdown of both units occurred, resulting in possible thermal stress to the aquatic environment.

APPARENT CAUSE OF OCCURRENCE:

The Unit 1 refueling was set back approximately 16 days when steam generator dams failed to perform satisfactorily. A further delay of 5 weeks involved the discovery of degradation of a number of welds in the Service Water System piping to No. 12 Component Cooling Heat Exchanger. Repair of the system prior to plant startup was necessary to meet safety requirements of the Technical Specifications. The weld degradation apparently involved corrosion of the weld materials in the service water environment.

The Unit 2 coastdown had been planned to separate the shutdowns of the two units. A safety analysis for extended fuel burnup of 16.8 MWD/MTM had been performed; calculation of burnup on January 21, 1983, revealed 16.73 MWD/MTM. Continued operation would have resulted in

APPARENT CAUSE OF OCCURRENCE: (cont'd)

less conservative peaking factors, putting the core closer to thermal limits and necessitating further analysis. Unit 2 also had several equipment problems which individually were not significant but which overall made continued operation less desirable from the standpoint of safety.

Finally, a number of 18 month surveillance requirements were coming due, several already requiring license changes for continued operation. Overall, timely surveillance of plant safety systems is important to insure that the systems are operable, and to insure no risk to the health and safety of the public is incurred.

ANALYSIS OF OCCURRENCE:

Section 2.1.3.2 of the Environmental Technical Specifications (ETS) requires:

Both units shall not be intentionally shut down concurrently during the period of November through April.

The specification is not applicable if the shutdown is required to protect the health and safety of the public. The ETS limit is based on preventing "cold shock" to aquatic organisms of the Delaware River. The phenomenon has been found to be most severe during the period of low ambient water temperatures. The potential for cold shock is minimized by maintaining one unit in operation.

As noted, the Unit 2 shutdown was necessitated by overall safe operating practice. Problems with Unit 1 were unexpected, and also required keeping the unit shutdown for safety. All reasonable efforts were made to prevent a concurrent shutdown, and the occurrence was not intentional. Since the event further involved protection of the health and safety of the public, no violation of the specification occurred. The ETS limits define adverse impact on the environment; since no limits were exceeded, no adverse impact was involved.

The occurrence constituted an unusual event that affects potential environmental impact from plant operation and that has high potential public interest. The incident is therefore reportable in accordance with ETS Section 5.6.2.1.

CORRECTIVE ACTION:

All degraded welds on No. 12 Component Cooling Heat Exchanger were repaired utilizing improved materials. Due to additional delays, Unit 1 is still shutdown and is expected to return to operation on February 18, 1983. The Unit 2 refueling outage is underway and is scheduled to be completed May 10, 1983. Since all reasonable efforts were taken to

CORRECTIVE ACTION: (cont'd)

prevent the occurrence, and since the problems involved were apparently isolated in nature, no corrective action was deemed necessary to prevent recurrence.

FAILURE DATA:

Problems with No. 12 Component Cooling Heat Exchanger are outlined in LER 82-091/01T.

Prepared By R. Frahm

H. J. Gidura
General Manager -
Salem Operations

SORC Meeting No. 83-15