

Public Service Electric and Gas Company P.O. Box 168 Hancocks Bridge, New Jersey 08038

Salem Generating Station

August 26, 1981

Mr. Boyce H. Grier Director of USNRC Office of Inspection and Enforcement Region 1 631 Park Avenue King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

LICENSE NO. DPR-75 DOCKET NO. 50-311 REPORTABLE OCCURRENCE 81-82/99X

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 81-82/99X. This report is required within ninety (90) days of the occurrence.

Sincerely yours,

H. J. Midura

Manager -

Salem Generating Station

H.J. Midun

CC: R. A. Uderitz

General Manager - Nuclear Production

Director, Office of Inspertion and Enforcement (30 copies)

Director, Office of Management

Information and Program Cont:

(3 copies)

8109080181 810826 PDR ADDCK 05000311 S PDR Report Number: 81-82/99X

Report Date: 8-26-81

Occurrence Date: 6-3-81 and 6-27-81

Facility: Salem Generating Station, Unit 2

Public Service Electric & Gas Company Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Inadvertent Safety Injections Following Reactor Trips.
This report was initiated by Incident Reports 81-171 and 81-220.

CONDITIONS PRIOR TO OCCURRENCE:

6-03-81 Mode 1 - Rx Power 20% - Unit Load 111 MWe 6-27-81 Mode 1 - Rx Power 30% - Unit Load 260 MWe

DESCRIPTION OF OCCUR' NCE:

At 0440 hours, June 3, 1981, and again at 0403 hours, June 27, 1981, an inadvertent safety injection (SI) occurred following a turbine/reactor trip. On both occurrence dates the inadvertent SIs were initiated by high steam line flow coincidence with low reactor collant average temperature. In both cases the emergency procedure for SI initiation was implemented and followed. The SIs were determined to be inadvertent and the SI signal was reset and the injection transients were terminated in accordance with procedures and the unit was placed in a stable condition. The duration of the injections were approximately 5 minutes on June 3, 1981, and 10 minutes on June 27, 1981.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Procedure inadequacy. The inadvertent-SIs were the result of higher than normal steam flow demand oscillations caused by No. 23 auxiliary feedwater pump (AFP). Testing on June 27, 1981, revealed that the No. 23 AFP when started ran erratic with wide variation in pump speed. The hunting of the pump was discovered to be severe enough to cause steam flow spiking on No. 21 and No. 23 steam generators. The high steam line flow conditions were set up by the combined effects of the steam demand by the Steam Dump System and the oscillations in the speed and hence steam demand of the No. 23 AFP.

ANALYSIS OF OCCURRENCE:

All safeguards equipment functioned as designed when the safety injections were initiated. The unit was designed for 50 safety injections. So far to date we have had 3 safety injections transients which were of less severity than the design basis transient, therefore, the transients had no detrimental effect on the unit and operation may continue safely.

CORRECTIVE ACTION:

During the testing on June 27, 1981, it was discovered that by venting the auxiliary feedwater pump governor each time the pump is removed from service, by cycling the governor from minimum to maximum speed 3 times, the pump will operate properly and function without speed oscillations and steam demand spiking. The procedures for Unit 1 and 2 have been revised to incorporate this method auxiliary feedwater pump operation.

FAILURE DATA:

Not Applicable

Prepared By R. MacWatters	Manager - Salem Generating Station
	Manager - Salem Generating Station
SORC Meeting No. 81-82	