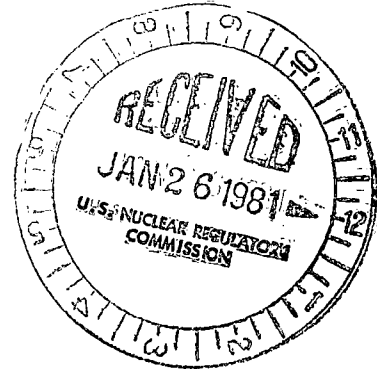




Public Service Electric and Gas Company 80 Park Place Newark, N.J. 07101 Phone 201 430-7000

January 21, 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-70
DOCKET NO. 50-272
REPORTABLE OCCURRENCE 80-54/01X-1
SUPPLEMENTAL REPORT

Pursuant to the requirements of Salem Generating Station Unit No. 1 Technical Specifications, Section 6.9.1, we are submitting supplemental Licensee Event Report for Reportable Occurrence 80-54/01X-1.

Sincerely yours,

R. A. Uderitz
R. A. Uderitz
General Manager -
Nuclear Production

CC: Director, Office of Inspection
and Enforcement (30 copies)
Director, Office of Management
Information and Program Control
(3 copies)



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Report Number: 80-54/01X-1
Report Date: 1/21/81
Occurrence Date: October 16, 1980
Facility: Salem Generating Station, Units 1 and 2
Public Service Electric and Gas Company
Hancocks Bridge, NJ 08038

IDENTIFICATION OF OCCURRENCE:

Both Fire Suppression Water Systems Inoperable

CONDITIONS PRIOR TO OCCURRENCE:

Unit 1 - Mode 6 - Refueling
Unit 2 - Mode 5 - Cold Shutdown

DESCRIPTION OF OCCURRENCE:

On October 12, 1980, the No. 1 Fire Pump Diesel suffered a failure which destroyed the engine block. This resulted in the loss of redundancy of the Fire Suppression Water System. On October 16, 1980, at 1330 hours, the remaining No. 2 Fire Pump Diesel failed to start on receipt of an automatic initiation signal resulting in both Fire Suppression Water Systems being inoperable per the requirements of Technical Specification 3.7.10.1. The No. 2 Pump was started manually and subsequently verified to be operable by automatic means. The cause of the failure to start was not determined but the No. 2 Pump was declared operable at 1430 hours after several test automatic starts with satisfactory results.

On October 17, 1980, at 1045 hours, the No. 2 Fire Pump Diesel again failed to start on an automatic initiation signal and was again declared inoperable. The diesel was again started manually and a man was subsequently designated to start the pump manually if another failure was experienced. The pump then again failed at 1345 hours and was started manually. Also, a cross-tie to the Hope Creek Station was opened to provide a backup fire suppression water source. The No. 2 Fire Pump was restored to operable status at 0330 hours on October 18, 1980 with no subsequent failure reported.

On October 19, 1980, during planned electrical maintenance, the fire pump automatic logic was out of service from 2050 to 2210 hours due to loss of its power supply. At this time, the No. 2 Fire Pump was available by manual action and the Hope Creek cross-tie was in service.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Equipment Failure

ANALYSIS OF OCCURRENCE:

The No. 1 Fire Pump Diesel failed on October 12, 1980, due to the seizure of a piston. This resulted in the wrist pin breaking and the connecting rod rupturing the cylinder and engine block. The failure was attributed to loss of lubrication; however, the reason for the loss could not be determined. During the period after the failure of the No. 1 Pump, the No. 2 Pump was declared inoperable several times. On October 16 at 1330 hours and again on October 17 at 1045 and 1345 hours, the No. 2 Diesel received an automatic start signal and cranked over but failed to start. In each case, the diesel was started satisfactorily by manual means and no cause for the failure was evident. During trouble-shooting, a faulty voltage regulator was replaced but no other problems were found. The diesel was returned to service at 0330 hours on October 18, 1980, with no subsequent failures.

CORRECTIVE ACTION:

To provide for loss of redundancy of the system, the cross-tie to the Hope Creek fire pumps was utilized. The four Hope Creek pumps provide a total capacity of 2500 gpm and start automatically on low header pressure. These pumps provided a backup to the No. 2 Fire Pump until the No. 1 Fire Pump was repaired.

The engine block on the No. 1 Fire Pump Diesel was replaced and was operable on December 20, 1980.

FAILURE DATA:

Model H-1077-DSU Diesel Engine
Waukesha Motor Company

Prepared By W. J. Steele

SORC Meeting No. 81-01


Manager - Salem Generating Station