



PSEG

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

Salem Generating Station

July 7, 1982

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 82-050/03L

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 82-050/03L. This report is required within
thirty (30) days of the occurrence.

Sincerely yours,

H. J. Midura
General Manager -
Salem Operations

RF:ks

CC: Distribution

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The Energy People

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Report Number: 82-050/03L

Report Date: 07-07-82

Occurrence Date: 06-17-82

Facility: Salem Generating Station, Unit 2
Public Service Electric & Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Nos. 21, 22 and 23 Containment Fan Coil Units - Inoperable.

This report was initiated by Incident Reports 82-152, 82-153 and 82-154.

CONDITIONS PRIOR TO OCCURRENCE:

Mode 1 - Rx Power 100% - Unit Load 1140 MWe.

DESCRIPTION OF OCCURRENCE:

At 1830 hours, June 17, 1982, during routine operation, the Control Room Operator observed that the service water flow to No. 22 Containment Fan Coil Unit (CFCU) was 500 GPM, and attempts to increase flow by shifting to low speed failed. The fan coil group containing the CFCU was declared inoperable, and Technical Specification Action Statement 3.6.2.3.a was entered, retroactive to the time of the discovery.

The following day, June 18, 1982, at 0315 hours during the performance of Surveillance Procedure SP(O)4.6.2.3A, the Control Room Operator discovered that No. 21 CFCU failed to meet specification limits, due to low service water flow in low speed. The fan coil group was declared inoperable, and Action Statement 3.6.2.3.b was entered. Shortly after, at 0330 hours, service water flow to No. 23 CFCU was found to be less than specification, and the third fan coil group was declared inoperable. The containment spray systems were operable throughout the occurrences.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The low service water flow to the CFCU's was apparently caused by American oysters (*Crassostrea virginica*) plugging the back pressure control valves. It appears that earlier this year oyster scat were drawn into the Service Water System, and were able to pass through the strainers. The scat attached themselves in colonies, to piping walls in low flow portions of the system, where they grew in size. The oysters are released from their points of attachment during system operational events (pump shifts, lineup changes, etc.) and periodic chlorination. The larger oysters cannot pass through the valve tube bundles and accumulate on the bundle face, thereby restricting flow.

ANALYSIS OF OCCURRENCE:

The CFCU's operate in conjunction with the containment spray systems to remove heat and radioactive contamination from the containment atmosphere in the event of a design basis accident. Operability of either all fan coil groups or of both containment spray systems is necessary to insure offsite radiation dose is maintained within the limits of 10CFR100. These occurrences therefore constitute conditions leading to a plant shutdown required by a limiting condition for operation, and are reportable in accordance with Technical Specification 6.9.1.9.b. Because redundant cooling capability was provided by the containment spray system, no risk to the health or safety of the public was involved.

Action Statement 3.6.2.3.a requires:

With one group of containment cooling fans inoperable, restore the inoperable group of cooling fans to operable status within the next 7 days, or be in hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

Action Statement 3.6.2.3.b requires:

With two groups of containment cooling fans inoperable, restore at least one group of cooling fans to operable status within 72 hours, or be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours.

Technical Specification Limiting Condition for Operation 3.0.3 requires:

When a limiting condition for operation cannot be met, within 1 hour action shall be initiated to place the unit in at least hot standby within the next 6 hours, in at least hot shutdown within the following 6 hours and in at least cold shutdown within the subsequent 24 hours.

CORRECTIVE ACTION:

The back pressure control valves on Nos. 21 and 23 CFCU's were cycled to dislodge and eliminate the oysters. The flow velocities involved are sufficient to break up or erode away the larger shells. Flow was returned to within specification, and the surveillance procedure was satisfactorily completed. The units were declared operable at 0400 hours, June 18, 1982, meeting the requirements of Action Statement 3.6.2.3.b, and consequently terminating the applicability of Limiting Condition for Operation 3.0.3.

CORRECTIVE ACTION: (continued)

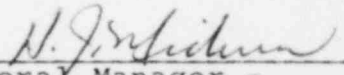
Back Pressure Control Valve 22SW57 was cycled in an attempt to dislodge the oysters. Due to the extremely low flow, however, the attempt failed. The valve was disassembled and the oysters were removed. Reassembly and surveillance testing were satisfactorily completed, No. 22 CFCU was declared operable, and at 1437 hours, June 19, 1982, Action Statement 3.6.2.3.a was terminated.

Development of a chlorination program to fully eliminate the oysters from the Service Water System, and to prevent recurrence of colony development, is in progress. Limits in the Environmental Technical Specification presently restrict chlorination to concentrations and durations which are ineffective. A commitment to submit a Supplemental Report upon resolution of the problem was made in LER 82-041.

FAILURE DATA:

Not Applicable.

Prepared By R. Frahm


General Manager -
Salem Operations

SORC Meeting No. 82-67B