

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report Nos. 50-311/84-22

Docket Nos. 50-311

License Nos. DPR-75

Licensee: Public Service Electric and Gas Company

80 Park Plaza

Newark, New Jersey 07101

Facility Name: Salem Nuclear Generating Station - Unit 2

Inspection At: Hancocks Bridge, New Jersey

Inspection Conducted: May 29 - 30, 1984

Inspectors:

J. C. Linville 6/6/84
J. C. Linville, Senior Resident Inspector date

R. J. Summers 6/6/84
R. J. Summers, Resident Inspector date

Approved By:

L. J. Norrholm 6/6/84
L. J. Norrholm, Chief, Reactor Projects Section No. 2B, Projects Branch No. 2, DPRP date

Inspection Summary: Special Inspection on May 29-30, 1984 (Report Number 50-311/84-22)

Areas Inspected: Special inspection of plant operations involving containment pressure relief. The inspection involved 9 inspector hours by the resident inspectors.

Result: One Technical Specification LCO violation was identified for failure to maintain the pressure-vacuum relief valves closed with the Containment Gaseous Activity Monitor inoperable. It appears that this violation was caused by inappropriate use of the procedure for on-the-spot changes to procedures.

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DETAILS

1. Persons Contacted

Within this report period, interviews and discussions were conducted with members of licensee management and staff as necessary to support inspection activity.

2. Plant Operations - Containment Pressure Relief

During a tour of the Unit 2 Control Room on May 29, 1984, the inspector observed that the Containment Gaseous Radiation Monitor (2R12A) was alarming and that a containment ventilation isolation had occurred as expected. Upon inquiry into how containment pressure reliefs were being conducted with this channel alarming, the control room operator referred to Operating Instruction No. II-16.3.1, Containment Ventilation Operation, with "on-the-spot" Change No. T-1, dated May 28, 1984. The procedure originally required that Radiation Monitoring System (RMS) Channels 2R11A, 2R12A and 2R12B be operating and that all alarms be cleared and reset prior to initiating a pressure relief. In addition, if any of these RMS channels were inoperable, then the appropriate 2R41 channel (plant vent activity monitor) could be used as a substitute, with reduced setpoints. The on-the-spot change deleted the requirement that the 2R12A channel be operating. The change did require that the plant vent gross radioactivity channel (2R16) and the plant vent gaseous activity channel (2R41C) be monitored, and that a calculation using 2R16 data be performed to ensure that the Technical Specification instantaneous release rate would not be exceeded. However, the "on-the-spot" change did not specify that the isolation and alarm setpoints of the 2R41C channel be lowered and therefore they were not.

Based on a review of the on-the-spot change and the original procedure for containment ventilation, it appeared that the change was inappropriate. The original procedure clearly specified the actions to be taken if a containment RMS channel was inoperable. The on-the-spot change deleted that portion of the procedure which required that the 2R12A channel not be alarming and also that the 2R41C channel alarm setpoints be reduced if 2R12A was inoperable. The on-the-spot change process does not permit changes which alter the intent of a procedure or instruction, however, this change was made to facilitate the containment pressure relief and apparently did not consider the Technical Specification basis for the changes to the steps in the procedure.

At 7:15 p.m. on May 28, 1984, in order to conduct a containment ventilation, the isolation function signal was blocked and the isolation reset. This made the 2R12A channel inoperable. From 7:15 p.m. until 8:15 p.m. the containment pressure-vacuum relief valves were opened to make the pressure relief. Technical Specifications 3.3.2, 3.3.3.1 and 3.9.9 require that the pressure-vacuum relief valves be maintained closed if the containment gaseous activity monitor (2R12A) is inoperable and the plant

vent gaseous activity monitor (2R41C) is not operable with reduced isolation setpoints. This is a violation of the Technical Specification Limiting Condition for Operation (311/84-22-01).

This LCO violation in itself has minimal safety significance because RMS channels 2R11A and 2R12B also both provide automatic containment ventilation isolation upon high containment particulate and iodine activity. These isolation signals are not required in accordance with Unit 2 Technical Specifications. In addition, the 2R41C monitor would have provided an isolation signal at it's normal alarm setpoint (equivalent to 5.77×10^{-1} Ci/sec Xe-133) which is approximately an order of magnitude greater than the Technical Specification required isolation setpoint (4.5×10^{-2} Ci/sec Xe-133). The licensee stated that a postulated gaseous release (Xe-133) with no actions other than the automatic isolation provided by the 2P41C, at its normal alarm setpoint, would not exceed the instantaneous gaseous release limit specified in the Unit 2 Environmental Technical Specifications. In addition, the operators did monitor RMS channels 2R16 and 2R41C and estimated the release to be about 1% of the Technical Specification limit per the "on-the-spot change".

3. Exit Interview

The inspectors discussed this violation with licensee management on May 29 and 30, 1984.