



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

MAY 1 2000

LRN-00-0183

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

**SALEM GENERATING STATION UNIT NO. 1
LICENSE NO. DPR-70
DOCKET NO 50-272
SPECIAL REPORT**

The attached special report addresses the inoperability of Unit 1 Radiation Monitoring System Channel 1R15 for greater than seven days. This report is submitted pursuant to Technical Specification 6.9.2 and is in accordance with Technical Specification Table 3.3-6 ACTION 23, item 2.

Sincerely,

A handwritten signature in dark ink, appearing to read "M. B. Bezilla", with a stylized flourish at the end.

M. B. Bezilla
Vice President -
Operations

Attachment

C United States Nuclear Regulatory Commission – Region I
475 Allendale Road
King of Prussia, PA 19406

/EHV

Distribution
LER File 3.7

The power is in your hands.

A handwritten number "1E22" in dark ink, located in the bottom right corner of the page.

ATTACHMENT TO LRN-00-0183

On April 16, 2000, Radiation Monitoring System (RMS) channel 1R15 (1RA4332), Condenser Air Ejector Monitor, was declared inoperable in accordance with Technical Specification (TS) 3.3.3.1. The channel had been spiking and showing elevated counts concurrent with plant evolutions during Salem Unit 1 trip and power ascension. Three evolutions in particular were cited as concurrent with the 1R15 spiking: (1) valve manipulations of TB10 valves (steam dump to main condenser), (2) relay chattering in rack 58 behind the control room and (3) operation of the Heater Drain Pumps. .

Troubleshooting of the 1R15 was conducted following the spiking on April 16, 2000. Upon inspection of the detector, slight corrosion was found on the posts and the tube was faulted and somewhat bent. A review of the past detector plateaus verified a degrading performance over the past year, and its most recent plateau had the minimum allowable span for satisfactory performance. Second, a ground loop was found on the cable that connects the field pre-amp to the drawer in the racks. The detector was replaced on April 20, with a newly designed improved detector per a design change package (DCP). The new detector plateau was much improved over the old detector. Also, the ground loop on the cable was removed from the control room racks. The detector was placed back in service on April 21, 2000.

On April 22, 2000, the 1R15 channel spiked again. Further troubleshooting was performed which revealed that the cable shield in the cable that runs from the detector to the pre-amp was not connected. Work was performed on April 27 to properly connect this shield into the 1R15 circuitry. Upon completion of this work, testing determined that connecting this cable shield into the 1R15 circuitry has alleviated the channel spiking concerns. 1R15 was returned to operable status on April 28, 2000 at ~1700 hours.