

**PHILADELPHIA ELECTRIC COMPANY**

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

April 8, 1983

Docket Nos. 50-277

Mr. J. M. Allan, Acting Administrator  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19046

SUBJECT: Licensee Event Report Narrative Description

Dear Mr. Allan:

The following occurrence was reported to Mr. A. R. Blough of  
Region I U.S. Nuclear Regulatory Commission on March 23, 1983.

|                |  |
|----------------|--|
| Reference:     | Docket No. 50-277  |
| Report Number: | 2-83-06/IT-0   |
| Report Date:   | April 8, 1983  |
| Event Date:    | March 23, 1983   |
| Facility:      | Peach Bottom Atomic Power Station<br>RD 1, Delta, PA 17314 |

Technical Specification Reference:

Technical Specification 3.7.A.2 states, in part, that "primary containment integrity shall be maintained at all times when the reactor is critical....." The definition of primary containment integrity contained in Section 1.0 of the Technical Specifications includes "All non-automatic containment isolation valves on lines connected to the reactor coolant system or containment....are closed."

8304220390 830408  
PDR ADDCK 05000277  
S PDR

IE22

Description of the Event:

During the investigation of a spike on a torus level recorder on March 20, 1983, instrument technicians installed test apparatus on the instrument drain valve of level transmitter LT 8027. Upon completion of the testing, they failed to isolate the test equipment, although the transmitter was returned to service providing normal indication to the operators.

On March 23, 1983 with the reactor shutdown for minor maintenance activities, an operator noted a downward spike of a torus level recorder. Investigation into the cause of the spike determined that test apparatus used during previous testing on March 20, 1983 had not been isolated from the test connection on level transmitter LT-8027, a displacer type level instrument which is located in the remote area of the plant. The test apparatus, a manometer, was found to be connected to the drain valve on the water leg of the level transmitter. The drain valve was in the open position and the instrument was valved in service. Normally, this connection would be capped. This represents a lack of containment integrity rather than a direct containment atmosphere leakage path.

Probable Consequences of the Event:

Since the torus connection for this instrument is under water, a test was performed to determine the potential water flow rate through the instrument test equipment at the Design Basis Accident (DBA) pressure of 49.1 psig. This flow rate, as confirmed by calculation, was determined to be 5.2 gallons per minute. At this rate, it would take approximately twenty-five days for the torus level to drop below the instrument vent valve at which time containment atmosphere could begin to escape. The leakage rate for air, as determined by test, would be 19.1 SCFM at 49.1 psig.

At normal containment operating pressure (0.5 psig), the water in the instrument water leg and the test apparatus provide a water seal such that there was no leakage. Make-up water supplies to the torus and other level instrumentation, including alarms, are available. Considering the conditions (twenty-five days at 49.1 psig) that it would take to lower torus level to the point which would permit containment atmosphere to begin escaping, there would be sufficient opportunity to mitigate a leak from this penetration, thus preventing the escape of containment atmosphere. For these reasons the safety significance of this event is minimal.

Cause of the Event:

The cause of this event was personnel error. During the investigation performed on March 20, 1983, to determine the cause of a torus level recorder spiking problems, the level transmitter was removed from service and calibrated. The technician returned the instrument to service without isolating the test equipment. This condition existed for approximately eighty hours.

Immediate Corrective Action:

Upon discovery, the open instrument drain valve was promptly closed, the test equipment was disconnected and the test connection capped.

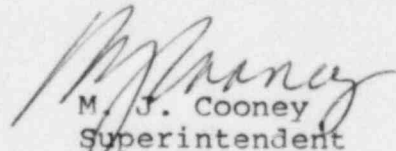
Corrective Action:

The individuals involved have been appropriately disciplined. They have been re-instructed on the importance of proper valving operations and the significance of their activities in this event.

Actions Taken to Prevent Recurrence:

Supervisory personnel have met with the instrument technicians and stressed the importance of guaranteeing that instrument valving is performed correctly. A special training program for instrumentation technicians, directed towards improving their knowledge of plant systems and system interaction, is currently in development. This program will be delivered to shift instrument technicians prior to June 1, 1983, and to all remaining instrument technicians prior to December 31, 1983.

Sincerely



M. J. Cooney  
Superintendent  
Nuclear Generation Division

cc: Document Control Desk

A. R. Blough  
Site Inspector  
P.O. Box 399  
Delta, PA 17314-0399