

PHILADELPHIA ELECTRIC COMPANY

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November 8, 1982

Mr. R. C. Haynes, Administrator
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUBJECT: LICENSEE EVENT REPORT NARRATIVE DESCRIPTION

Dear Mr. Haynes:

The following occurrence was reported to Mr. R. Blough, Region I, United States Nuclear Regulatory Commission on October 24, 1982.

Reference:	Docket No. 50-277
Report No.:	2-82-36/17
Event Date:	November 5, 1982
Report Date:	October 24, 1982
Facility:	Peach Bottom Atomic Power Station RD #1, Delta, PA 17314

This LER is submitted in accordance with the Peach Bottom Technical Specification and a letter from D. G. Eisenhut, NRC, dated May 7, 1980.

Technical Specification Reference:

Technical Specification 3.7.A.1.b requires that "at any time the nuclear system is pressurized above atmospheric pressure or work is being done which has the potential to drain the vessel, the pressure suppression pool water volume and temperature shall be maintained within the following limits except as specified in 3.7.A.2.

- a. Minimum Water Volume - 122,900 ft.
- b. Maximum Water Volume - 127,300 ft.

In the letter from Mr. Eisenhut, dated May 7, 1980, a staff position was stated as, "Future failures of a relief valve to close should be reported promptly to the NRC".

Description of the Event

During start-up of Unit 2, following a maintenance shutdown on October 23, 1982, Unit 2 was being started up using normal start-up procedures. Primary coolant pressure was being increased, when at approximately 3:07 p.m. on October 24, with primary coolant pressure at 832 psig, the 71J relief valve opened. Reactor power at the time was approximately 1%. Opening of the relief valve immediately reduced pressure resulting in swell of reactor water level which tripped the operating reactor feed pump. Before the reactor feed pump could be recovered, reactor level reduced to approximately zero inches and the reactor scrambled. The HPCI system was manually started, before it reached its automatic start level of minus 48 inches, to recover reactor level to normal. Minimum level reached during this transient was approximately minus 10 inches.

The relief valve remained open until primary coolant pressure reduced to 80 psig. At 3:58 p.m. on October 24, 1982. During this transient, the torus volume increased less than 1% above the maximum Technical Specification limit of 127,300 cubic feet. Following closure of the relief valve, steps were taken to pump down the torus to normal volume.

In accordance with the site emergency plan, an unusual event was declared and proper notifications were made. The unusual event was terminated when the relief valve reseated.

Probable Consequences of the Event

During the above transient, all ECCS systems operated properly and all parameters responded as expected. No release of activity occurred during this event. Safety significance is therefore minimal.

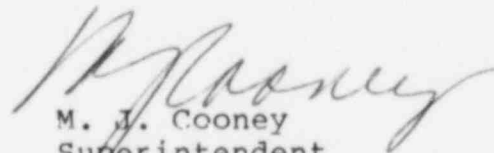
Cause of the Event

Unknown at this time. The relief valve will be sent to a vendor to determine the cause of this spurious opening.

Immediate Corrective Action

The 71J relief valve was replaced. An inspection of the downstream piping was conducted and no discrepancies identified. Preliminary data indicated that the 71J valve had operated numerous times. A further investigation of the data indicated that the relief valve did not cycle repeatedly, but actually remained open until approximately 80 psig. Fatigue analysis was performed by Bechtel and a determination made that the downstream piping was not overstressed. The vacuum breaker on the downcomer from this valve and a second valve which had been operated manually during the transient were inspected. Both valves showed some binding on the hinge pin such that normal spring pressure was insufficient to close the valve. The two vacuum breakers were replaced. Corrective actions have therefore been completed with the exception of our continued investigation into the original cause of the valve opening.

Very truly yours,



M. J. Cooney
Superintendent
Generation Division - Nuclear

cc: Mr. Victor Stello, Director
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