

TECA

Deliver to the  
Williams

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PHILADELPHIA ELECTRIC COMPANY  
Fech Bottom Atomic Power Station  
Delta, Pennsylvania  
17314

November 7, 1978

Mr. Boyce H. Grier  
Office of Inspection and Enforcement  
Region 1  
United States Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

SUBJECT: REPORTABLE OCCURRENCE - PROMPT NOTIFICATION

Confirming W. T. Ulrich's conversation with Mr. Greenman, Region 1,  
United States Nuclear Regulatory Commission on November 7, 1978.

Reference: Docket No. 050-278 5  
Fech Bottom Unit 3  
Technical Specification Reference: 3.5.C

Report No. 3-78-21/1P  
Occurrence Date: November 6, 1978

Identification of Occurrence:

HPCI tripped after delivering erratic flow to the reactor vessel  
following a reactor scram.

Conditions Prior to Occurrence:

Unit 3 was operating at approximately 100 percent power when a feedwater  
control system failure resulted in a reactor low level transient and  
scrammed. Both the REIC and HPCI were automatically initiated by the  
low level condition. The REIC operated satisfactorily and delivered  
rated flow to the reactor vessel. The HPCI initiated but flow delivery  
was erratic. After a short period of time, the HPCI tripped (apparently  
on overspeed). Attempts to manually restart the HPCI were unsuccessful  
until after the auxiliary oil pump was removed from service and then  
restarted. The HPCI was then manually operated to deliver water to the  
reactor vessel until it tripped on a reactor high water level signal.

Apparent Cause of Occurrence:

No cause of the erratic flow or apparent overspeed trip has been  
determined. An investigation did identify a defective overspeed trip  
reset diaphragm pilot valve. Investigation is continuing.

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Analysis of Occurrence:

The safety significance of this occurrence is minimal in that sufficient ECCS systems were available to maintain safe reactor water level during the transient. The use of the HPCI was not needed during this transient. The ADS, core spray, and LPCI systems were available to deliver water had the situation required additional capacity.

Corrective Actions:

The investigation into the difficulties experienced with the HPCI following the scram indicated that when the overspeed trip reset pilot valve was manually placed in a trip position, it remained in the trip position and would not reset. The overspeed trip reset circuit contains an oil actuated diaphragm valve which must close off the oil supply to the overspeed trip pilot valve in order for the pilot valve to reset after a preset time delay. Upon disassembly of the diaphragm actuated valve, a clip was found to be missing. This kept the spring of the diaphragm valve from closing the valve and was the cause of the inability of the auto reset to occur.

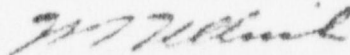
The overspeed trip reset diaphragm pilot was rebuilt and functionally tested. This included a manual test of the overspeed trip mechanism. The HPCI flow controller was also removed and bench tested to prove operability. Based on these tests, the HPCI was considered operable and a reactor restart authorized.

Following the restart of the reactor with the primary system pressurized to approximately 1000 psia, a HPCI quick start test was performed in order to prove operability. This test was successful. However, during manual operation, some instability of the flow control system was again observed. Investigation is continuing.

Previous Failures:

LER 3-78-17/1P.

Very truly yours,



W. T. Ullrich  
Station Superintendent

WTU:ljm