



Commonwealth Edison  
Quad-Cities Nuclear Power Station  
Post Office Box 216  
Cordova, Illinois 61242  
Telephone 309/654-2241

NJK-75-157

March 27, 1975



Mr. John F. O'Leary, Director  
Directorate of Licensing Regulation  
U. S. NUCLEAR REGULATORY COMMISSION  
Washington, D. C. 20545

REFERENCE: Quad-Cities Nuclear Power Station  
Docket No. 50-254, DPR-29  
Appendix A, Sections 3.7.D.1, 6.6.B.1.a.

Dear Mr. O'Leary:

Enclosed please find Abnormal Occurrence Report No. 50-254/75-6 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Directorate of Regulatory Operations by telephone on March 19, 1975 and to you and Region III, Directorate of Regulatory Operations by telecopy on March 20, 1975.

This report is submitted to you in accordance with the requirements of Technical Specification 6.6.B.1.a.

Very truly yours,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis  
Station Superintendent

NJK:RAR/dkp

cc: Region III, Directorate of Regulatory Operations  
J. S. Abel

*50-254  
incident*

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REPORT NUMBER: AO-50-254/75-6

REPORT DATE: March 27, 1975

OCCURRENCE DATE: March 18, 1975

FACILITY: Quad-Cities Nuclear Power Station  
Cordova, IL 61242

IDENTIFICATION OF OCCURRENCE:

Unit one TIP machine #5 ball valve failed in the open position.

CONDITIONS PRIOR TO OCCURRENCE:

The unit was in the RUN mode at a steady state power level of 2480 MWt and 820 MWe.

DESCRIPTION OF OCCURRENCE:

On March 18, 1975, at 6:30 p.m., the unit one operator discovered that the ball valve for the #5 TIP machine showed an open indication. The control key for the shear valve was given to the control room operator by the shift engineer. An entry was made into the Unit one TIP cubicle and the ball valve was tapped. The indication immediately showed a closed condition.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Component Failure - The valve is solenoid operated to the open position and spring loaded to the closed position. The apparent cause of the occurrence was a failure of the spring to close the ball valve completely; thus, not picking up the limit switch.

ANALYSIS OF OCCURRENCE:

Prior to the March 18, 1975 occurrence, the most recent operation of TIP machine #5 was at 3:50 p.m. on March 17, 1975. Therefore, it is possible that the valve was open for 26 hours and 40 minutes. Under accident conditions with the drywell pressurized to 62 psig, if the TIP tube became severed, the flow through the open penetration would have been 72.1 SCFM. This leakage is only a fraction of the capacity of the Standby Gas Treatment System and would have been easily processed by it. There would have been no significant amounts of radioactive materials released, nor would the public health and safety have been endangered.

CORRECTIVE ACTION:

On March 22, 1975 the old ball valve was replaced with a new one. The new valve was cycled to verify its operability.

FAILURE DATA:

Equipment Identification - The TIP ball valve is a solenoid operated ball valve similar to that shown on General Electric Company drawing 112C2391P001.

In view of the number of failures that have occurred with these valves, several new ones are on order of a newer type design. These new valves will be installed when they are received to compare their performance to the original type valves.