



Commonwealth Edison  
Quad-Cities Nuclear Power Station  
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FAP-72-188

October 3, 1972

50-254

Mr. A. Giambusso  
Deputy Director for Reactor Projects  
Directorate of Licensing  
US Atomic Energy Commission  
Washington, D.C. 20545

REFERENCE: Quad-Cities Nuclear Power Station;  
Unit 1, DPR-30 Appendix A;  
Sections 1.0.A.2, 1.0.A.4, 3.7.A.4, and 6.6.B.3

Dear Mr. Giambusso:

The purpose of this letter is to report a condition relating to the operation of the station, in which, three Unit 1 suppression chamber to drywell vacuum breakers were found to have an incorrect position indication when visually inspected. The reactor had been shutdown and cooled down for the purpose of entering the torus to conduct this inspection. This condition was reported to you by telegram on September 25, 1972.

#### DESCRIPTION OF INCIDENT

On September 23, 1972 the Unit 1 torus was entered in order to inspect the suppression chamber to drywell vacuum breakers. This inspection was deemed necessary based on the problems experienced with the Unit 2 vacuum breakers reported to you in my letter of September 6, 1972. Although all valves indicated fully closed at the test panel, 3 valves were found to be slightly open. Valves 1601-33A and 1601-32C were each open 1/16 of an inch and valve 1601-32D was 3/4 of an inch open. All valves were then cycled once from the remote test panel to verify operability.

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The valves all opened properly, however, six valves did not return to the fully closed position. The discrepancies were as follows:

<u>Valve No.</u>	<u>Remote Indication</u>	<u>Actual Position</u>
1601-32A	Not closed	1 1/2" open
1601-32D	Closed	1/2" open
1601-32E	Not closed	3 1/4" open
1601-33A	Closed	1 1/4" open
1601-33B	Closed	1/16" open
1601-33C	Closed	1/8" open

CORRECTIVE ACTION

A design modification was made on all the Unit 1 vacuum breaker valves which should significantly improve their performance. The position of the counterweight on the valve shaft was changed to provide a greater closing moment on the valve disc when it is at a position near its seat. This was accomplished without affecting the normal valve operation. The valves will still go fully open at a differential pressure of less than .5 psi. This modification has also been made to the Unit 2 valves.

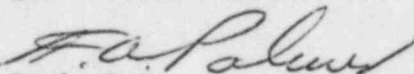
After the valve repairs and modifications were completed, the following tests were performed:

1. Valves were opened with a torque wrench to demonstrate the .5 psi differential criteria. This was repeated 5 times on each valve.
2. The valves were manually opened 1/2 inch and then released to show that there is no tendency for the valve to "hang up" when moved slightly off the seat. This was also repeated 5 times on each valve.
3. Each valve was then cycled 10 times from the remote test panel and its position indication checked.

A leakage test was also performed by pressurizing the drywell to .8psi and visually inspecting the vacuum breakers and pressure suppression piping in the torus. The drywell pressure was maintained easily with the torus open and only two minor leaks were detected on the valves.

Very truly yours,

Commonwealth Edison Company  
Quad-Cities Nuclear Power Station

  
F. A. Palmer  
Superintendent

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