



Commonwealth Edison
Quad-Cities Generating Station
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NJK-74-173

July 24, 1974



Mr. John F. O'Leary, Director
Directorate of Licensing
Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Reference: Quad-Cities Nuclear Power Station Unit 1
Docket No. 50-254, DPR-29, Appendix A
Sections 1.0.A.2, 3.7.D.1, 4.7.D.1.a and 6.6.B.1.a

Dear Mr. O'Leary:

Enclosed please find Abnormal Occurrence Report No. AO 50-254/74-21 for Quad-Cities Nuclear Power Station. This was previously reported to Region III, Directorate of Regulatory Operations in person on July 15, 1974, and to you and Region III, Directorate of Regulatory Operations by telecopy also on July 15, 1974.

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/JLS/jeh

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

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REPORT NUMBER: AO-50-254/74-21

REPORT DATE: July 23, 1974

OCCURRENCE DATE: July 14, 1974

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

IDENTIFICATION OF OCCURRENCE:

Failure of recirculation pump seal pressure sensor 1-262-25A instrument line check valve.

CONDITIONS PRIOR TO OCCURRENCE:

1. Unit 1 reactor in shutdown condition.
2. Both Unit 1 recirculation pumps on.

DESCRIPTION OF OCCURRENCE:

While doing Instrument Department refueling outage surveillance testing of the instrument sensing line high flow check valves for the Unit 1 recirculation pump seals, it was discovered that flow check valve 1-262-25A would not check. The check valve was valved out by closing the instrument isolation valve 1-262-2-3A and tagged out-of-service for repair and replacement. A work request was immediately initiated to investigate and repair the malfunctioning check valve.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The reason the excess flow check valve 1-262-25A did not check was because the valve disk and popit were missing. The surveillance test on these valves is done once every refueling outage, and was last done on 11-11-71 during the initial startup testing of Unit 1. At that time, the 25A valve passed the test satisfactorily, however, the 1-262-26A did not pass the test. Since having the 1-262-25A valve pass the test on 11-11-71 and fail the test on 7-14-74 because of missing parts is inconsistent, an error must have been made during the testing on 11-11-71.

It is postulated that the error was made in recording the test results on 11-11-71. The 26A valve was reported as defective; it is likely that it was the 25A valve that was defective at that time. The 26A valve was repaired and tested satisfactorily in 1971. The 25A valve was not retested then because it had been satisfactory during the first test. When the valves were retested in 1974, the error showed up by indicating the 25A valve was still defective.

ANALYSIS OF OCCURRENCE:

The purpose of this valve is to check the flow of water through the instrument line in case of a line rupture. The effect of not having this valve in the line is that if the instrument line severed downstream of the 1-262-25A valve the flow of water

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into the Reactor Building through the $\frac{1}{2}$ -inch instrument line would have been unchecked. Reactor water and steam from the reactor would escape. The steam would condense to water because the temperature in the Reactor Building is below the boiling point of the steam. This condensate and reactor water would be collected in the Reactor Building floor drain sumps. Fission products gases might also be released, but they could be handled by the Reactor Building Ventilation System.

Since this line is small, a large inventory of reactor water could not escape in a short period of time. The manual isolation valve 1-262-2-3A could also be closed to stop any leak. Because this situation is easily manageable, the consequences to public health and safety would be minimal.

CORRECTIVE ACTION:

A new valve disk and popit were installed. There is no reason to take any further corrective action because the new valve passed the surveillance test and should operate without further problems.

FAILURE DATA:

The 1-262-26A valve was previously found defective during the Unit 1 pre-operational tests. However, as explained above, it is felt that this was an error in recording the test results.

Since it is felt that this is the same valve that had been defective in 1971, there is no cumulative experience to indicate any continuing problems with these valves.