



Commonwealth Edison
Quad-Cities Generating Station
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NJK-74-183

July 29, 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, 3.2.B, Table 3.2.2, and 6.6.B.1.a

Dear Mr. O'Leary:

Enclosed please find Abnormal Occurrence Report No. 50-254/74-23 for Quad-Cities Nuclear Power Station. This was previously reported to Region III, Directorate of Regulatory Operations by telephone on July 20, 1974, and to you and Region III, Directorate of Regulatory Operations by telecopy on July 20, 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/RAR/jeh

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

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REPORT NUMBER: AO-50-254/74-23

REPORT DATE: July 29, 1974

OCCURRENCE DATE: July 19, 1974

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

IDENTIFICATION OF OCCURRENCE:

Reactor vessel level instrument LIS-1-263-58A exceeded its Limiting Condition for Operation.

CONDITIONS PRIOR TO OCCURRENCE

Unit 1 in the hot shutdown condition following a low power level scram.

DESCRIPTION OF OCCURRENCE:

After unit one scrambled from low level it was decided to check and recalibrate, if necessary, all the reactor pressure vessel level instrumentation. While doing the instrument department surveillance tests, it was discovered that one of the four low level switches tripped at a setpoint which exceeded the Technical Specifications Limiting Condition for Operation. The switch LIS-1-263-58A tripped at a level of +3 inches while section 3.1 of the Technical Specifications lists the Limiting Condition for Operation as $\geq +8$ inches. No operator actions were needed to correct the situation.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The switch was inspected and no physical abnormalities could be found. The cause of the occurrence can only be attributed to instrument setpoint drift.

ANALYSIS OF OCCURRENCE:

Though one of the four reactor water level instruments had drifted out of limits there are no safety implications created by the drift. The reactor protection trip systems are arranged in a one out of two-twice logic and can tolerate the failure of one instrument channel. Therefore, since three of the four level switches had setpoints within the limits, the trip system would have functioned as designed.

CORRECTIVE ACTION:

The level switch was immediately recalibrated and functionally tested in accordance with instrument surveillance procedures. In January 1973, the setpoints of the reactor level switches were raised to allow for instrument drift to occur and still stay within the Technical Specification setpoints. The histories of these instruments were reviewed and it is felt that no further increase of the setpoint is needed at this time. The review of the calibration data for these

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switches will continue and any further action required will be performed as needed to maintain the safe operation of the reactor.

FAILURE DATA:

The instrument in question is a Yarway Model 4418C. There are eight of these instruments used in both the unit one and unit two reactor protection systems. Since the setpoints were changed in January 1973, they have been calibrated six times each for a total of forty-eight calibrations. On five occasions, the calibration results have been found out of limits. Two of those cases had variations of less than one-half from the limiting setpoint. Thus, cumulative experience indicates that these switches have not had excessive occurrences of setpoint drift outside of limits.