



Commonwealth Edison  
Quad-Cities Nuclear Power Station  
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NJK-75-344

July 2, 1975

Director of Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Reference: Quad-Cities Nuclear Power Station  
Docket No. 50-265, DPR-30, Unit 2  
Appendix A, Sections 1.0.A.5, 3.7.A.3.a, 3.7.A.3.b, 6.6.B.1.a

Enclosed please find Abnormal Occurrence Report No. 50-265/75-20 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Directorate of Regulatory Operations by telephone on June 24, 1975 and to you and Region III, Directorate of Regulatory Operations by telecopy on June 24, 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/HGL/lk

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

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REPORT NUMBER: AO 50-265/75-20

REPORT DATE: June 30, 1975

OCCURRENCE DATE: June 23, 1975

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

IDENTIFICATION OF OCCURRENCE:

The Unit 2 reactor building to suppression chamber vacuum breaker (2-1601-31A) was inoperable.

CONDITIONS PRIOR TO OCCURRENCE:

Unit 2 was operating at 2023 MWt and 607 MWe. The occurrence was encountered during routine reactor building to suppression chamber vacuum breaker surveillance testing as prescribed in Technical Specification 4.7.A.3.a.

DESCRIPTION OF OCCURRENCE:

On June 23, 1975, at 11:30 a.m. the quarterly surveillance testing of the reactor building to suppression chamber vacuum breaker 2-1601-31A was being performed as prescribed in Technical Specification 4.7.A.3.a. At this time it was discovered that the torque necessary to fully open the vacuum breaker valve exceeded the Quad-Cities surveillance procedure 43-7.1.5-2 limit of 50 ft. lbs. Additional torque was applied to the vacuum breaker valve. Movement was noted in the valve counterweight at a torque of between 85 and 90 ft. lbs. but the torque indicating test apparatus broke at this point. Further torque was required to fully open the valve. The 2-1601-31A vacuum breaker was declared to be inoperable as defined by Quad-Cities surveillance procedure 43-7.1.5-2 because of excessive opening torque and the Shift Engineer was notified of the situation. A Work Request was issued to repair vacuum breaker 2-1601-31A. To insure the integrity of the vacuum breaker function, the parallel 2-1601-31B vacuum breaker valve was operated. Although no test apparatus was available at this instant the torque needed to fully open this valve was noticeably less than that needed to open the 2-1601-31A valve.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The apparent cause of this occurrence was equipment failure. The reactor building to torus vacuum breaker, 2-1601-31A, would not open due to fouled swing gate bushings.

ANALYSIS OF OCCURRENCE:

The effects of this occurrence were minimized due to the fact that the parallel vacuum breaker 2-1601-31B was functional at all times and valve 31A was repaired and retested in less than the seven days allowed by

June 30, 1975

Technical Specifications. It should also be noted that this occurrence was detected from a routine preventative surveillance and not during an actual required reactor scram function; therefore, there was no effect on public health and safety.

CORRECTIVE ACTION:

The action taken to correct this abnormal occurrence was to replace the packing and clean the teflon bushing of the 2-1601-31A vacuum breaker. Once this was completed the check valve swung freely. Repairs and re-testing were completed on June 27, 1975.

In order to deter the recurrence of such equipment failures, surveillance procedures were enlarged in Temporary Change No. 449 to include the following limitation:

"If the vacuum breaker does not swing free to its closed position, regardless of its opening torque valve, the vacuum breaker must be considered inoperable. Notify the Shift Engineer, initiate a Work Request for repairs, and refer to Technical Specifications section 3.7.A.3."

In this way fouling of the vacuum breaker can be acted on as soon as impairment of free movement of the valve is detected.

FAILURE DATA:

This is the first failure of this type since the vacuum breakers were modified by Mod Number M-4-2-74-61 during the past Unit two refueling outage. Therefore, there are no safety implications based on cumulative experience.