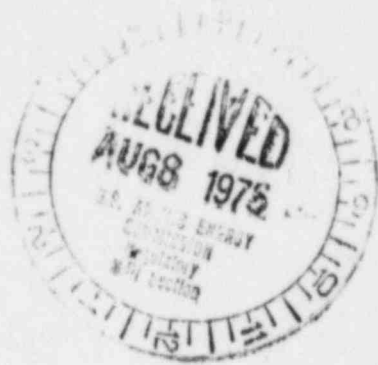




Commonwealth Edison
Quad-Cities Generating Station
Post Office Box 216
Cordova, Illinois 61242
Telephone 309/654-2241

NJK-75-394

August 4, 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.2., 3.7.A.5.b, 6.6.B.1.a.

Enclosed please find Abnormal Occurrence Report No. 50-265/75-26 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Directorate of Regulatory Operations by telephone on July 25, 1975 and to you and Region III, Directorate of Regulatory Operations by telecopy on July 28, 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/JWS/vmb

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

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50-265
inquiry
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REPORT NUMBER: AO-50-265/75-26

REPORT DATE: August 4, 1975

OCCURRENCE DATE: July 25, 1975

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

IDENTIFICATION OF OCCURRENCE:

High oxygen level in the Unit 2 primary containment.

CONDITIONS PRIOR TO OCCURRENCE:

Unit 2 was in the RUN mode with a power level of 1374 MWT, a load of 421 MWE, and increasing load at 3 MWE/hour.

DESCRIPTION OF OCCURRENCE:

At 4:00PM on July 24, 1975, Unit 2 was put in the RUN mode. At 4:00PM on July 25, 1975, the oxygen level of the Unit 2 suppression chamber was 8%, and the drywell was 5%, thus exceeding Technical Specification 3.7.A.5.b.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Equipment Failure - The reason for the occurrence was that insufficient nitrogen was available to inert the primary containment. The deficiency occurred because a leak had developed at a flange in the nitrogen inerting system due to a gasket failure. This leak was of sufficient size that there was an inadequate supply of nitrogen reaching the primary containment to complete the inerting operation.

ANALYSIS OF OCCURRENCE:

Since the unit was operating at approximately half-power, the probability of the conditions existing to allow combustion of any hydrogen liberated if a gross metal-water reaction occurred during a loss of coolant accident was very small. This probability was small because the containment atmosphere had been reduced from atmospheric oxygen concentrations to 5% oxygen and 8% oxygen in the drywell and suppression chamber respectively; and, because the amount of electrolytic oxygen being produced in the reactor which could have been available for recombination in the event of a loss of coolant accident was reduced from that being produced at full power. Thus, the safety implications of this occurrence were minimal.

There were no abnormal radiation exposures to plant personnel and no effects on the health and safety of the public resulting from this occurrence.

CORRECTIVE ACTION:

The initial action taken was to take samples and confirm the control room readings, and to notify maintenance of the leak. After the control room readings were confirmed, the inerting of the Unit 2 primary containment was stopped, the leaking flange was isolated and repairs were initiated.

At 11:15AM on July 26, 1975 the gasket in the nitrogen line had been replaced and repairs were completed. Inerting of Unit 2 primary containment was then re-initiated. At 12:15PM on July 26, 1975 the Unit 2 oxygen analyzer was zeroed and spanned and a sample of the suppression chamber atmosphere indicated an oxygen content of 4.3%. By 12:40PM the drywell

atmosphere contained 4.0% oxygen and the suppression chamber 3.6%. At 2:40PM on July 26, 1975, the inerting of Unit 2 was completed and load was being increased at 3 MWE/hour.

FAILURE DATA:

There has been one previous failure to inert the primary containment in the time allowed by Technical Specifications; however, that occurrence was caused by late arrival of the nitrogen supply truck. This is the first occurrence of this type caused by an equipment failure; therefore, there are no safety implications based on past experience. The replacement of the damaged gasket was considered sufficient to correct the problem.