



Commonwealth Edison
Quad-Cities Generating Station
Post Office Box 216
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NJK-74-127

June 21, 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 DOCKET NO. 50-265, DPR-30,
APPENDIX A, SECTIONS 1.0.A.4, 3.2.B, AND TABLE 3.2.2

Dear Mr. O'Leary:

Enclosed please find Abnormal Occurrence Report No. A.O. 50-265/74-13 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Directorate of Regulatory Operations by telephone on June 10, 1974 and to you and Region III, Directorate of Regulatory Operations by telegram on June 14, 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
N. J. Kalivianakis
Station Superintendent

NJK/RAR/jk

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

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REPORT NUMBER: A. O.-50-265/74-13

REPORT DATE: June 21, 1974

OCCURRENCE DATE: June 13, 1974

FACILITY: QUAD-CITIES NUCLEAR POWER STATION
CORDOVA, ILLINOIS 61242

IDENTIFICATION OF OCCURRENCE:

Failure of ECCS Low-Low Level Switch LIS-2-263-72D

CONDITIONS PRIOR TO OCCURRENCE:

Unit 2 Reactor in cold shutdown condition.

DESCRIPTION OF OCCURRENCE:

While doing routine surveillance of LIS-2-263-72D on June 13, 1974, it failed to actuate. When the Instrument Mechanic lightly pressed the mercury-wetted switch, the unit functioned properly and continued to do so. This failure was in violation of Technical Specification Section 3.2.B and Table 3.2.2.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Upon investigating the internal mechanisms of the level switch, it was found that the indicating arm wasn't energizing the mercury-wetted switch as it traveled in an arc. The switch functioned properly after it was touched and it could not be made to malfunction again. It appears that the magnet-switch air gap is marginal and may be responsible for the periodic failure of the switch.

ANALYSIS OF OCCURRENCE:

There are four low level switches arranged in a one out of two-twice logic. Even though LIS-2-263-72D was failed, the other three checked normal and the system would have operated as designed if it were needed. Therefore, there are no safety implications resulting from the occurrence that would jeopardize the safe operation of the plant or endanger the health and safety of the public.

CORRECTIVE ACTION:

A new level switch has been ordered and will be installed to replace the

switch that failed when it is received. In the interim, in addition to normal quarterly surveillance of the level switch, a functional test will be performed weekly until the switch is replaced. These actions should assure continued safe operation of the reactor and prevent repetition of this occurrence.

FAILURE DATA:

This switch has failed once before and was the subject of investigations at that time. The exchange of information and letters suggested several possible causes for the failure but reached no definite conclusions. Subsequent to the failure, the switch performed satisfactorily until this occurrence. In view of the previous failure, the course of action described above has been decided upon.

The failed component is a Yarway Model 4418C Level Switch, calibrated to indicate from minus sixty inches to plus sixty inches water level.