

Commonwealth Edison Company

QUAD CITIES NUCLEAR POWER STATION

Address Reply to:

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March 15, 1972

Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D. C. 20545

50-254



SUBJECT: DPR-29 - Quad Cities Nuclear Power Station Unit 1

REFERENCE: Appendix "A" to DPR-29 - Sections 6.6A.3 & 6.6B.2

Dear Dr. Morris:

As set forth by the Technical Specifications for Quad Cities Nuclear Power Station in Section 6.6A.3 and 6.6B.2, the following abnormal occurrence is reported as Incident Number 1-72-3.

OCCURRENCE

On March 10, 1972 at 7:30 p.m., the reactor manual control system was energized in the "REFUEL" mode for a series of surveillance tests. The nuclear station operator was unable to obtain a control rod withdrawal permissive. Investigation of the problem indicated the following relay coils burned out:

REFERENCE: Sargent & Lundy Drawing 4E-1414

- 107 - Rod Select Permissive
- 108 - Rod in Permissive
- 121 - Refuel Mode Auxiliary
- 124 - Refuel Equipment Rod Out Lock Auxiliary
- 126 - Service Platform Fuel Loaded Auxiliary
- 127 - Scram Discharge Volume - High Level
- K-20 - Rod Worth Minimizer Output Buffer
- K-21 - Rod Worth Minimizer Output Buffer
- K-22 - Rod Worth Minimizer Output Buffer

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The cause of the overexcitation and burnout was due to the following events. The retractable cable on the Unit 1 - refueling bridge was being replaced with a longer cable and during the replacement some wiring changes were made so that the (as built) drawings conformed with the manufacturers drawings. The retractable cable is 12 conductor with 11 conductors used. The work was done by craft electricians under the direction of the General Electric Company using Commonwealth Edison Company "out of service" and modification procedures (Ref. - Modification 285-1-72). A wiring error was made which imposed 277 volts (480 volt system-phase to ground) on a normal 120 volt circuit. The system was energized before the work was checked out and tested because it was not properly tagged "Out-Of-Service". Without the "out of service procedure" the communication link to all shift supervisors was broken, they were not informed that the work was going on.

This action was a violation of our operating procedures and could have rendered the system in an unsafe condition.

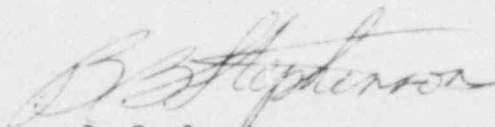
Corrective Action

All relays in the associated branches of the reactor manual control system were checked for DC resistance and ground resistance. All defective relays were replaced and some wiring in the rod worth minimizer buffer was replaced. The original preoperational test A-6 "Control Rod Drive Manual Control" was performed on the system followed by normal pre-start surveillance tests.

All work groups were retrained on our "Out-of-Service" procedures and their importance relating to safety of personnel and equipment.

Sincerely yours,

COMMONWEALTH EDISON COMPANY
Quad-Cities Nuclear Power Station



B. B. Stephenson

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