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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

APR 30 1973

Docket No. 50-346

The Toledo Edison Company
ATTN: Mr. Glenn J. Sampson
Vice President, Power
300 Edison Plaza
Toledo, Ohio 43652

Gentlemen:

Two incidents have occurred at a nuclear power plant that indicate a deficiency in the control circuit design that warrants a review of the control circuits of all facilities to assure that these types of deficiencies do not exist or are corrected if they do exist. Both incidents involved the inadvertent disabling of a component by racking out the circuit breaker for a different component. In one case, this caused the loss of capability to isolate secondary containment when this capability was required. In the second case, the racking out of a breaker for one pump disabled not only the pump being removed from service but also its redundant counterpart. Both of these occurrences resulted from the use of auxiliary contacts on the movable portion of the circuit breakers in the control circuits of other components. When the breaker is racked out, the control circuit employing these contacts is opened and may be rendered inoperable. Copies of the licensee's reports on these two occurrences are enclosed for your information. The licensee's corrective measures for both of these cases included redesign of the control circuits so that racking out the breakers would not render the control circuits of other equipment inoperable.

As a result of these occurrences, we request that you perform a review of the control circuits of all safety related equipment at the plant to assure that disabling of one component does not, through incorporation in other interlocking or sequencing controls, render other components inoperable. All modes of test, operation, and failure must be considered. It appears that in the cases cited above, the racked out position of breakers had not been included in the failure mode analysis of these control circuits.

Also, your procedures should be reviewed to ensure they provide that, whenever part of a redundant system is removed from service, the portion remaining in service is functionally tested immediately after the disabling of the affected portion and, if possible, before disabling of the affected portion.

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