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March 23, 1977

REGULATORY DOCKET FILE COPY

Mr. Dennis L. Ziemann, Chief
Operating Reactors - Branch 2
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Subject: Dresden Station Unit 2
ECCS Appendix K Single Failure Analysis
NRC Docket No. 50-237

- References (a): G. A. Abrell letter to D. L. Ziemann
dated May 17, 1976.
- (b): R. L. Bolger letter to B. C. Rusche
dated May 21, 1976.

Dear Mr. Ziemann:

Reference (a) transmitted information concerning the automated transfer scheme on MCC 28-7/29-7. Reference (b) stated that (1) the impact on plant safety with removal of the automated transfer scheme would be evaluated and (2) either additional justification for the present design or a proposed design change would be transmitted.

If the auto transfer is removed, the single failure of any part of the safety system that causes a loss of Bus 28 or Bus 29 will cause the loss of the LPCI system in addition to the loss of one core spray pump. It is our opinion that this is an unacceptable result.

Since removal is unacceptable, a review of the consequences of leaving the transfer in is required. This review reveals that the main area of concern would be a fault on either MCC28-7 or MCC29-7 which could possibly cause the loss of Bus 29 and the auto transfer of the fault to Bus 28 causing the loss of that bus. Also, if the fault only caused the loss of Bus 29 and then after the transfer it cleared before causing the loss of Bus 28, the result would be the loss of LPCI and one core spray pump.

It is our opinion that the loss of either Bus 29 or both Busses 28 and 29 is not a credible event under the conditions previously mentioned. The loss of Bus 29 would require three failures, while the loss of both Bus 28 and Bus 29 would require five failures. The three failures would be (1) the fault on either MCC28-7 or MCC29-7, (2) the failure of breaker 2971 to trip before Bus 29 feed breaker MF 29 trips, and (3) the failure of breaker 2972 to trip before Bus 29 feed breaker MF 29 trips. The five failures would be the same three failures above and (4) the failures of 2871 to trip before Bus 28 feed breaker MF 28 trips, and (5) the failure of 2872 to trip before Bus 28 feed breaker MF 28 trips.

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Mr. Dennis L. Ziemann

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A double failure of the breakers to trip as required is not considered a credible event in light of the fact that the trip coordination between MCC feed breakers 2871, 2872, 2971 and 2972 and bus feed breakers MF 28 and MF 29 is such that the MCC feed breakers have a 500% faster trip time than the bus feed breakers.

Based on the above evaluation, we believe the auto transfer should not be removed and that the system is adequate as is to meet single failure requirements.

Future proposals for the system require that Commonwealth Edison be furnished an official statement of your specific concerns for the present arrangement.

Very truly yours,



R. L. Bolger

Assistant Vice President