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November 15, 1976

Director Nuclear Reactor Regulation
Attn: Mr. V. Stello, Jr., Director
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Dresden Station Units 2 and 3
Quad-Cities Station Units 1 and 2
Anticipated Transient Without Scram (ATWS), NRC Docket Nos. 50-237, 50-249, 50-254, and 50-265

Reference (a): V. Stello Letter to R. L. Bolger dated August 31, 1976.

Dear Mr. Stello:

This submittal responds to your letter dated August 31, 1976 in which you requested that we inform you of our intention with respect to the incorporation of a recirculation pump trip in conjunction with the evaluation of the ATWS event for Dresden and Quad-Cities Stations. Your letter was not received until mid October, which is the reason the response was not submitted in accordance with your schedule.

We have reviewed your evaluation of the efficiency of a recirculation pump trip and concur in your conclusion that the power and pressure surges that might otherwise occur in the most limiting transient without scram would be reduced. However, we are unable at this time to recommend a defensible schedule for the design, procurement, and installation of such a pump trip.

In the interest of better characterizing the probability and consequences of the ATWS event, we have participated in joint discussions with General Electric and licensees of other BWR facilities in the ATWS "C" category (reference WASH-1270). On the basis of these discussions, we have concluded that additional plant unique analytical work is required before a technically defensible ATWS backfit program can be identified. Therefore, in June 1976, we contracted with General Electric to perform this additional analysis. This study will identify a practicable backfit program that will not

only be compatible with the objectives of WASH-1270, but will also minimize radiation exposure to plant and craft personnel and limit the modification of systems of proven integrity so as not to present a greater risk to the health and safety of the public than the improbable ATWS event itself. This General Electric analysis will be completed by December 30, 1976.

Although we recognize your concern that no solution dispositive of the ATWS issue has been identified, we believe that subsequent to the issuance of WASH-1270 and concurrent with your August 31 letter, there has been a substantial amount of new data generated on the issue of ATWS. This new information should be reviewed by the NRC prior to requiring design changes for "C" category plants in order to insure that the public safety is truly benefited by the modification of existing systems of proven integrity. We request, therefore, that the following documents be placed on our docket and reviewed as a part of your ATWS evaluation for Dresden Units 2 and 3 and Quad-Cities Units 1 and 2:

1) ATWS: A Reappraisal, Part I, An Examination of "WASH-1270, Technical Report on ATWS for Water Cooled Power Reactors: EPRI NP-265, Electric Power Research Institute, August 1976; submitted as SAI/SR-126-PA dated June 1976 by J. R. Lellouche (EPRI) to B. C. Rusche (NRC) August 24, 1976.

2) BWR Shutdown System Reliability Analysis, submitted by G. Hughes (GE) to D. F. Ross (NRC) by letter dated September 30, 1976.

It is our judgement, based on a review of this most recent technical information, that further efforts to reduce the predicted reactor protection system failure rate will have a negligible effect on societal risk. We expect that this information plus the backfit considerations appropriate to our plant will obviate the need for further design modifications.

In addition, Commonwealth Edison is currently evaluating a recirculation pump trip to provide added assurance that end-of-cycle (EOC equilibrium fuel cycle) over pressure transients can be accommodated. An ATWS recirculation pump trip should logically be reviewed concurrently with the EOC pump trip effort in order to provide an optimized system design. Our review of the EOC pump trip will be completed for the four units in January 1977.

If your review of the EPRI ATWS reappraisal and the BWR reliability analysis concludes that an ATWS pump trip is still necessary, Commonwealth Edison Company will provide a schedule for implementation of such a scheme in February 1977 upon completion of its review of the ATWS plant unique study and the EOC pump trip.

One (1) signed original and 59 copies of this letter are submitted for your use.

Very truly yours,

R. L. Bolger

R. L. Bolger
Assistant Vice President