



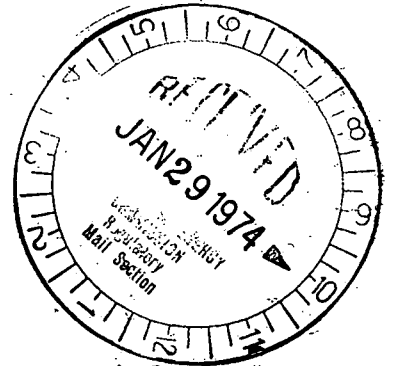
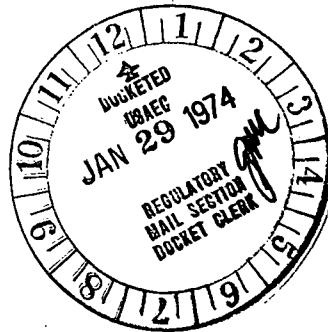
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Regulatory

File Cyl

January 23, 1974

Mr. Angelo Giambusso  
 Deputy Director for  
 Reactor Projects  
 Directorate of Licensing  
 Office of Regulation  
 U.S. Atomic Energy Commission  
 Washington, D.C. 20545



Subject: Dresden Station Units 2 and 3 - Special Report No. 37 - Analysis of Pipe Breaks Outside Containment - AEC Dkts 50-237 and 50-249

Dear Mr. Giambusso:

Attached is Dresden Station Special Report No. 37 entitled "Analysis of Effects of Pipe Breaks Outside Primary Containment - Main Steam and Feedwater Piping." This report is submitted in response to and in accordance with your letter dated December 14, 1972 concerning this subject. Main steam and feedwater pipe breaks only are analyzed in this report; the analyses for other higher energy piping will be reported by mid-February, 1974.

The report indicates certain plant modification would be required to comply fully with your guidelines that the plant be capable of safe shutdown in the event of any postulated complete instantaneous severance of a main steam or feedwater line. We recommend that none of the modifications identified in the report be implemented for the following reasons. While piping leaks are credible, we do not consider instantaneous rupture of such piping to be a credible event. Moreover, General Electric Company indicated in Reports GEAP-10207-23, 25 and 27, entitled "Reactor Primary Coolant System Rupture Study" that the probability of severance of the type of piping considered is 0.053 severances per reactor per 40 years. This leads to the conclusion that approximately one (1) severance would be expected per 1,000 reactors per year. Based on this probability only, it is clear that any severance of power plant grade piping is highly unlikely. The significance of such postulated pipe breaks is further reduced at Dresden Station Units 2 and 3; because of the total number of break locations

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Mr. Angelo Giambusso

- 2 -

January 23, 1974

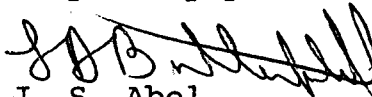
considered, only four (4) could possibly affect safe shutdown of a reactor. These factors lead to the conclusion that "backfitting" of your pipe break outside containment guidelines to Dresden Units 2 and 3 will not significantly improve public health and safety.

The postulated events which could possibly restrict safe plant shutdown using your guidelines are identified in the last paragraph of Section 14, Page 56 of the attached report. These modifications would ensure the integrity of electric cable pans which may be essential to plant shutdown in the event of certain postulated main steam line breaks and the integrity of one of two redundant diesel generators in the event of certain postulated feedwater line breaks. If a complete instantaneous severance of a main steam line is postulated, Items 6-5, 6-6 and 7-6 are identified in Section 14, Page 56 of the attached report as requiring design modifications to protect certain electrical cable pans. The function of each cable has not yet been identified; therefore the requirement to protect the cable pans has not yet been confirmed. Currently, the function of each cable is being reviewed and will be completed and the need for protection from your postulated breaks determined by mid-February, 1974.

This special report has received both On-site and Off-site review and approval.

One (1) signed original and 39 copies of this report are submitted for your review.

Very truly yours,



fr J. S. Abel

Nuclear Licensing Administrator  
Boiling Water Reactors

Att.