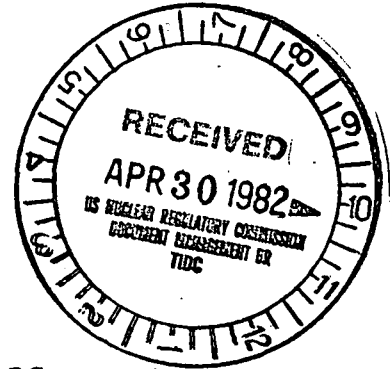




**Commonwealth Edison**  
One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

April 26, 1982

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555



Subject: Dresden Station Unit 3  
Supplementary Information  
Concerning the MCPR Operating  
Limit with Exxon Nuclear Co.  
Methodology  
NRC Docket No. 50-249

Reference (a): T. J. Rausch letter to H. R. Denton  
dated January 11, 1982.

Dear Mr. Denton:

In Reference (a), Commonwealth Edison proposed to amend the Dresden Unit 3 Technical Specifications to allow the use of fuel manufactured by Exxon Nuclear Company, Inc. The following information is being submitted subsequent to discussions with your staff concerning the Cycle 8 MCPR operating limit dependence on scram insertion times.

The Dresden Unit 3 Cycle 8 MCPR operating limit was obtained by statistically convoluting Dresden 3 scram speed data along with other variables described in XN-NF-81-78 (Plant Transient Analysis Report) so that a  $\Delta$ CPR is determined which would not be exceeded in 95% of the possible outcomes of the event. The upper 95% probability value for the core average scram insertion time was conservatively determined to be 2.58 seconds using the Dresden 3 actual scram speed data base. This data point established a MCPR operating limit which is applicable if the Dresden Unit 3 Cycle 8 scram speed tests result in an average time to 90% insertion of 2.58 sec. or less.

The second data point was established by using the scram speed corresponding to the Technical Specification time to 90% insertion of 3.5 sec. That scram speed was used in conjunction with the upper 95% probability values of rod worth uncertainty, void uncertainty, and total scram time delay in a thermal margin calculation, as described in XN-NF-79-71, Revision 2. The MCPR operating limit obtained from that calculation by adding the transient change in MCPR to the MCPR safety limit is increased by 0.05.

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H. R. Denton

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April 26, 1982

The value of the MCPR operating limit is then obtained by linear interpolation for average scram times between 2.58 sec. and the Technical Specification limit of 3.5 sec.

Please direct any questions you may have concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal are provided for your use.

Very truly yours,



Thomas J. Rausch  
Nuclear Licensing Administrator

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cc: Region III Inspector - Dresden

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