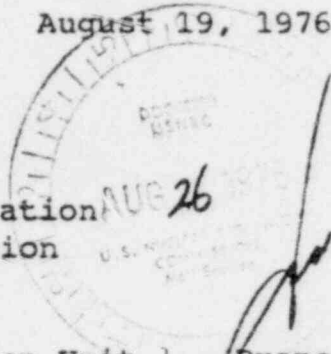




Commonwealth Edison  
 One First National Plaza, Chicago, Illinois  
 Address Reply to: Post Office Box 767  
 Chicago, Illinois 60690

REGULATORY BOARD

August 19, 1976



Mr. Benard C. Rusche, Director  
 Office of Nuclear Reactor Regulation  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555

Subject: Dresden Station Unit 1 - Proposed Amendment to  
 Appendix A Technical Specifications for DPR-2  
 Concerning Operation at Elevated Minimum  
 Pressurization Temperatures, NRC Docket No. 50-10

References (a) : R. L. Bolger Letter to B. C. Rusche dated  
 November 25, 1975, NRC Docket No. 50-10

(b) : D. L. Ziemann Letter to R. L. Bolger dated  
 February 2, 1976, NRC Docket No. 50-10

Dear Mr. Rusche:

Pursuant to 10 CFR 50.59, Commonwealth Edison proposes  
 to amend Figure 4.6.2 of the Technical Specifications.

Reference (a) proposed limiting conditions for operations  
 for the elevated minimum pressurization temperature now applicable  
 to the Dresden Unit 1 vessel. Reference (b) requested additional  
 information for Reference (a) and a clarification of Figure 4.6.2.

Curve 4.6.2 has been redrawn in order to conform to the  
 requirements of 10 CFR 50 Appendix G.

The area below the "C" or critical curve has been divided  
 into two regions. The left hand region is a critical region in  
 accordance with 10 CFR 50 Appendix G Section IV.A.2.C which permits  
 only low power operation such as physics testing to be performed.  
 Low power physics testing is interpreted to authorize critical  
 operation into the heating range as would be done for temperature  
 coefficient testing.

Above RT NDT +60 or the right hand section of the curve,  
 power operation as defined in the Technical Specifications is  
 permitted.

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Mr. Benard C. Rusche

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The upper bound of the "C" curve is the saturation curve for water. A fracture mechanics analysis shows stress levels on the "B" curve to be within the limitations of the vessel. Inasmuch as higher stresses are plotted for the "B" curve, operation with the "C" curve will provide additional margin to the toughness limits of the vessel. The reason for proposing nuclear heat to bring the vessel above the minimum pressurization temperature is the lack of capability of other systems to bring it to this temperature. Because of the volume of water and piping in the primary system, and the elevated minimum pressurization system temperature, the capacity of the heating boilers and recirculation pumps has been reached. Under certain temperature conditions, the heatup rate is extremely slow and even beyond the capability of these systems.

Among the reasons nuclear heating can be used safely in this region are as follows:

The stresses imposed for a nuclear heatup are not greater than for any other type of heatup.

Conducting a reactor vessel heatup is a routine operator function for which adequate information and instrumentation is available.

The use of nuclear heat to provide a more rapid but still conservative heatup rate will minimize the time during which the vessel is below MPT but subjected to the potential for overpressurization.

The potential for reactivity additions beyond operator capability to respond is acknowledged. However, the reactor protection system will terminate the transient well within the time frame for any heat to be transmitted to the vessel walls and thus add to the stress level.

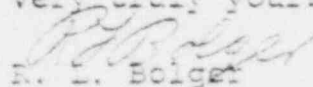
In summary, nuclear heat is proposed to heat below MPT because the risk and stress are comparable with other methods of heatup and present non-nuclear heatup capacity is at its limit.

Please direct any additional questions to this office.

Three (3) signed originals and 37 copies are provided for your use.

Very truly yours,

SUBSCRIBED and SWORN  
to before me this 19<sup>th</sup>  
day of August, 1976.  
Notary Public

  
R. L. Bolger  
Assistant Vice President

Notary Public  
My Commission Expires September 24, 1978