

Docket 50-313



UNITED STATES  
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20543

January 26, 1970

Docket No. 50-313

Arkansas Power and Light Company  
Pine Bluff, Arkansas 71601

Attention: Mr. J. D. Phillips  
Vice President and Chief Engineer

Gentlemen:

We have reviewed Supplement No. 15 to your application for licensing of the Arkansas Nuclear One facility. That supplement describes a design modification for the buttress reinforcement of the containment structure. On the basis of the stress values and safety margins indicated, we find no technical objection to commencement of concrete placement for the containment walls. However, in order for us to complete our review of this modification, we will require additional information.

In particular, we believe that to determine the bursting force, the selected percentage of the applied load must be justified and that the most conservative condition of cracking should be used.

We request that you provide (1) an analysis in support of a selected percentage of applied prestress load to be assumed as the bursting force, assuming cracked concrete and (2) an analysis to check whether the anchorage can be maintained in static equilibrium, assuming the same conservative crack pattern used in (1), and a determination of corresponding stresses. The analysis requested for item (2) should also account for the three dimensional stress field and the effects of the thermal gradients. In addition, it should consider three locations in the buttress: at bottom mat, approximately half way up the buttress, and adjacent to the ring girder at the dome. Tests, in lieu of such an analysis, would also be acceptable to us.

This information should be presented to the staff as soon as possible, prior to the third pour.

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Mr. J. D. Phillips

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Please contact us if you desire any discussion or clarification of the material requested.

Sincerely yours,

Original Signed by  
Peter A. Morris

Peter A. Morris, Director  
Division of Reactor Licensing

cc:

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