



ARKANSAS POWER & LIGHT COMPANY

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January 25, 1980

2-010-20

Mr. D. G. Eisenhut, Acting Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Arkansas Nuclear One - Unit 2  
Docket No. 50-368  
License No. NPF-6  
Fuel Clad Swelling  
(File: 2-1510)

References: (A) NRC letter from D. G. Eisenhut to all  
Operating Light Water Reactors, dated  
November 9, 1979  
  
(B) AP&L letter to D. G. Eisenhut from  
W. C. Cavanaugh, dated January 7, 1980  
  
(C) Enclosure 1-P of C-E Letter LD-78-069,  
A. E. Scherer to D. F. Ross, dated  
September 18, 1978

Dear Mr. Eisenhut:

Reference A required confirmation of information presented by the fuel vendors regarding fuel cladding strain and assembly flow blockage modeling in our ECCS analyses. Confirmation of our continued compliance with the Appendix K requirements was provided in Reference B. Reference B also stated that regions exist where the fuel cladding strain and assembly flow blockage models used in the ECCS analyses for ANO-2 are less conservative than the new NRC models. As requested, further calculations were initiated to demonstrate continued compliance with the ECCS Acceptance Criteria of 10CFR50.46.

In order to respond to the NRC concern in a timely manner, Combustion Engineering (C-E), our fuel vendor, performed an analysis for the operating plants with C-E fuel. The attached analysis was performed for the plant most limited by the new NRC models for the previously determined limiting break size. The C-E ECCS Evaluation Model of Reference C was used for this analysis. The method for including the new NRC rupture strain and blockage models is described in detail in Section III of the attached report. Results of the analysis are summarized in Section IV of the report. With higher (more conservative) strain and blockage, a lower peak cladding temperature than calculated for the reference cycle was obtained. The applicability of the analysis to ANO-2 is provided in Sections V and VI.

Mr. D. G. Eisenhut

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As a result of the analysis documented in the attached report, we believe that the ECCS analyses performed for our plant(s) by C-E continue to be in compliance with the limits of 10CFR50.46.

Very truly yours,

*David C. Trimble*

David C. Trimble  
Manager, Licensing

DCT:MOW:skm

Attachment

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