

HELPING BUILD ARKANSAS

## ARKANSAS POWER & LIGHT COMPANY

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June 8, 1981

DONALD A. RUETER DIRECTOR TECHNICAL AND ENVIRONMENTAL SERVICES

## 2CAN068106

Director of Nuclear Reactor Regulation ATTN: Mr. Robert A. Clark, Chief Operating Reactors Branch #3 Division of Licensing U.S. Nuclear Regulatory Comm. Washington, D. C. 20555

SUBJECT: Arkansas Nuclear One - Unit 2 Docket No. 50-368 License No. NPF-6 Request for NRC Approval to Proceed to a Limited Power Level (File: 2-1510)



## Gentlemen:

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As you know Arkansas Power and Light (AP&L) Company's request for NRC review of material related to our Unit 2, Cycle 2 reload formally began on December 10, 1980, with the submittal of a document entitled "Statistical Combination of Uncertainties", CEN-139(A)-P. Subsequently, we submitted a description of our CPC/CEAC software modification on January 9, 1981, a major portion of the reload report on February 25, 1981, and the remaining portion of the reload report on March 5, 1981.

Since that time AP&L has received some 113 written questions and numerous verbal questions from the NRC staff on this material. In fact, as of June 5, 1981, we were still receiving questions from the staff. AP&L and its NSSS vendor, Combustion Engineering (CE), expended considerable resources in an effort to quickly respond to these questions. To date, all but five (5) questions have been answered, and the remaining responses are expected to be completed by June 10, 1981. The largest number of questions have concerned the CPC software modifications for Cycle 2. The reports involved include:

- CEN-143(A)-P CPC/CEAC Software Modifications For ANO-2, a) Dec., 1980.
- CEN-139(A)-P Statistical Combination Of Uncertainties, b) Nov., 1980.
- CEN-139(A)-P Responses To First Round Questions On The c) Statistical Combination Of Uncertainties Program: CETOP-D Code Structure And Modeling Methods, March, 1981.



Mr. Robert A. Clark

Four sets of questions covering the above items have been answered. Four meetings have been arranged between NRC, CE and AP&L to discuss the reports. AP&L is concerned that, given the amount of information generated in response to questions, the NRC review will not be completed in time to support the scheduled Cycle 2 criticality currently planned for June 16. 1981.

Approximately fourteen (14) additional days can be added to the NRC's review time without impacting ANO-2 operation if the NRC will authorize ANO-2 to startup and conduct the required physics testing at 0% and 50% power. AP&L proposes that a 70% administrative power limit be implemented to allow the above testing. The administrative control will be backed up by the Linear Power Level - High Trip which is normally set for 70% power during the 50% testing. Since the major underlying questions involve an operating margin of less than 10%, ANO-2 could operate at 90% power without any safety concern. Therefore, we believe this approach is warranted.

At 70% operation we estimate that at least 25% additional power margin to the DNBR limit of 1.24 is available. The steady state DNBR calculated by CPC is estimated to be 3.00 (without incorporation of statistical combination of uncertainties) which more than covers the magnitude of margin gains anticipated by the new methodology utilized in the ANO-2 Cycle 2 analysis. AP&L therefore requests approval for ANO-2 to operate at 70% power until NRC review is complete.

Very truly yours,

Donald A. Rueter

DAR: RBL: kb