ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

August 19, 1982

2CAN088201

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

SUBJECT: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Amendment 24
Boron Dilution Analysis

Gentlemen:

Please refer to your letter (2CNA068103) to Mr. William Cavanaugh, III dated June 19, 1981, which transmitted Amendment No. 24 to facility operating License No. NPF-6 for ANO-2. The subject letter requests our response to the following item.

Item:

Provide a positive means to alert control room operators of a boron dilution event when the reactor is shutdown. If the positive means involves the installation of hardware, it should be completed as soon as practical.

Response:

As stated in our letter (2CAN108112) to you dated October 26, 1981, AP&L is currently taking the following action to provide protection against an inadvertent boron dilution event as required by your letter referenced above.

We have initiated the installation of audible control room alarms on count rate. These alarms are being installed on independent channels, and will be equipped with a variable setpoint such that the alarm can be adjusted using plant procedures which account for the existing plant conditions. The alarms will be activated upon count rate increase indicative of a reduction in shutdown margin. Alarm actuation will occur prior to a return to criticality, providing sufficient time to

A001

allow operator action to terminate the boron dilution event, i.e., 15 minutes in mode 5 and 30 minutes in mode 6. The setpoint will be adjustable such that the case with the vessel water level drained to the lip of the outlet nozzle as well as all other anticipated operating conditions can be accomodated. The addition of this hardware will be completed during the second refueling outage which is scheduled to commence on August 27, 1982.

As the requested indication results in conservatism beyond that previously analyzed, addition of the boron dilution trend alarms is an additional conservatism beyond the acceptable limits of the Final Safety Analysis report. We believe this conservatism, amplified by the varied additional alarms and indicators available to indicate a boron dilution in progress, justify normal Administrative Controls as appropriate and sufficient to assure operation and maintenance of the system. As such, no Technical Specifications are proposed.

Very truly yours,

John R. Marshall

John R. Marshall
Manager, Licensing

JRM:DLL:sc