May 23, 1988

Docket Nos. 50-313
and 50-368

Mr. T. Gene Campbell
Vice President, Nuclear
Operations
Arkansas Power and Light Company
Post Office Box 551
Little Rock, Arkansas 72203

Dear Mr. Campbell:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - SAFETY PARAMETER DISPLAY SYSTEM, ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 (TAC NOS. 51219 AND 51220)

After reviewing your submittals on the Safety Parameter Display System, we find that we need additional information, described in the enclosure, in order that we may complete our review. Questions regarding the maximum credible fault testing of Rochester Instrument Systems SC-132, and Energy Incorporated Model 00993-4, remain unresolved. We request the information be provided within 30 days from the receipt of this letter.

The reporting and/or recordkeeping requirements of this letter affect fewer than ten respondents; therefore OMB clearance is not required under P. L. 96-511.

Sincerely,

/s/
C. Craig Harbuck, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosure:
As stated

cc w/enclosure:
See next page

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Docket File	NRC PDR	Local PDR	PD4 Reading
L. Rubenstein	J. Calvo	P. Noonan	C. Harbuck
OGC-Rockville	E. Jordan	J. Partlow	ACRS (10)
PD4 Plant File			

PD4/LA	PD4/PM	PD4/D
PNoonan	CHarbuck:sr	JCalvo
05/23/88	05/23/88	05/23/88

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Project Directorate - IV
Division of Reactor Projects - III,
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Mr. T. Gene Campbell
Arkansas Power & Light Company

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Unit Nos. 1 and 2

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Little Rock, Arkansas 72201

Honorable William Abernathy
County Judge of Pope County
Pope County Courthouse
Russelville, Arkansas 72801

ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION CONCERNING THE
ARKANSAS NUCLEAR ONE, UNITS 1 AND 2
SAFETY PARAMETER DISPLAY SYSTEM

Each operating rector shall be provided with a Safety Parameter Display System (SPDS). The Commission approved requirements for an SPDS are defined in NUREG-0737, Supplement 1. In the Regional Workshops on Generic Letter 82-33 held during March 1983, the NRC discussed these requirements and the staff's review of the SPDS.

In order to satisfy the NRC requirements concerning the SPDS, Arkansas Power and Light Company (APL) submitted Safety Analysis Reports by letters dated April 30, 1984 and June 29, 1984. The reports provided a description and a safety analysis of the SPDS at Arkansas Nuclear One, Units 1 and 2. These reports did not address the requirements that the SPDS must be suitably isolated from equipment and sensors that are used in safety systems to prevent electrical and electronic interference.

On August 7, 1985, a request for additional information, which included specific question on the electrical isolators, was sent to APL. The requested information was received by letter dated October 28, 1985, and by draft letter dated July 17, 1986. The staff held telephone conferences with the licensee on July 28, 1986 and August 6, 1986 to clarify the submittals.

The staff has reviewed the available information and has determined that two items remain unresolved. The first item concerns the Rochester Instrument Systems SC-1302 maximum credible fault testing. APL has noted that the SC-1302 was tested at 250 VDC and 600 VAC applied to the non-Class 1E output in the

transverse mode. It is the staff's understanding that the 600 VAC voltage was provided by a 120/600, 300VA step up transformer which would provide a current potential much less than the 20 amperes (@240 VAC) defined by APL as the maximum credible fault in the July 28, 1986 telecon. The staff requests documentation which demonstrates the device can withstand a maximum credible fault in the transverse mode at the plant defined level of 240 VAC and 20 amperes. The staff will accept testing by the licensee, vendor or an independent lab.

The second item concerns the Energy Incorporated (EI) Model 00993-4 maximum credible fault testing. Tests were conducted by EI using a maximum credible fault of 10 amperes at 480 VAC. Because the total energy available in the EI test is comparable to the ANO maximum fault level an analysis showing the ANO requirements enveloped by the EI testing would be acceptable to the staff in lieu of further testing. The staff requests submittal of the plant specific analysis or testing at the plant specific maximum credible fault levels.