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 Docket No. 50-313 AEOD  
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 ACRS-10 SBajwa  
 Hornstein EBlackwood

Mr. William Cavanaugh, III  
 Senior Vice President,  
 Energy Supply  
 Arkansas Power & Light Company  
 P. O. Box 551  
 Little Rock, Arkansas 72203

Dear Mr. Cavanaugh:

In our correspondence to you concerning requests for information relating to environmental qualification of electrical equipment we failed to include the request for information relating to radiation profiles of equipment. The enclosed request for information identifies our concerns in this area.

We have discussed this with your staff and you indicated you will have the information to us by November 5, 1982. We appreciate your expediting this matter.

Sincerely,

Original signed by

John F. Stolz, Chief  
 Operating Reactors Branch #4  
 Division of Licensing

Enclosure:  
 Request for  
 Information

cc w/enclosure:  
 See next page

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OFFICE	ORB#4:DL	C-ORB#4:DL					
SURNAME	GVissing/cb.	JStolz					
DATE	10/26/82	10/26/82					

Arkansas Power & Light Company

cc w/enclosure(s):

Mr. John R. Marshall  
Manager, Licensing  
Arkansas Power & Light Company  
P. O. Box 551  
Little Rock, Arkansas 72203

Mr. James P. O'Hanlon  
General Manager  
Arkansas Nuclear One  
P. O. Box 608  
Russellville, Arkansas 72801

Mr. William Johnson  
U.S. Nuclear Regulatory Commission  
P. O. Box 2090  
Russellville, Arkansas 72801

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Babcock & Wilcox  
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Suite 220, 7910 Woodmont Avenue  
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Mr. Nicholas S. Reynolds  
Debevoise & Liberman  
1200 17th Street, NW  
Washington, DC 20036

Director, Bureau of Environmental  
Health Services  
4815 West Markham Street  
Little Rock, Arkansas 72201

Honorable Ermil Grant  
Acting County Judge of Pope County  
Pope County Courthouse  
Russellville, Arkansas 72801

Regional Radiation Representative  
EPA Region VI  
1201 Elm Street  
Dallas, Texas 75270

Mr. John T. Collins, Regional Administrator  
U. S. Nuclear Regulatory Commission, Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

REQUEST FOR INFORMATION RELATING TO  
ENVIRONMENTAL QUALIFICATION OF ELECTRICAL EQUIPMENT  
FOR  
ARKANSAS NUCLEAR ONE, UNIT NO. 1  
DOCKET NO. 50-313

The licensee's submittal stated that a gamma dose of  $5 \times 10^7$  rads "was conservatively assigned to all components inside containment with the exception of those components which do not have existing qualification data to substantiate the component's ability to withstand this dose." However, the licensee failed to identify which components or how many could not meet the  $5 \times 10^7$  rad criteria.

The licensee also stated that an audit was performed and all cables had at least 70 mils of organic jacketing so that beta damage need not be considered. While the argument for gamma qualification of cables appears valid, the licensee failed to provide information proving that the cable jacketing will survive in the post-accident high radiation fields or identify whether other types of equipment inside containment might be sensitive to beta radiation damage.

The staff concludes that a qualification value of  $5 \times 10^7$  rads (gamma) is higher than the screening criteria of  $4 \times 10^7$  rads (beta + gamma) and, therefore, no review of the assumptions or methodology was performed for that equipment to which the  $5 \times 10^7$  rad qualification value is applicable. However, the licensee should provide a description of the equipment not meeting the  $5 \times 10^7$  criteria and provide the actual qualification value for

each piece as well as the methods and assumptions used in estimating the location specific doses. It is particularly important that all sources of radiation be incorporated into that analysis (e.g., background, etc.).

The licensee should also provide information describing why equipment (other than the cables) are not susceptible to beta radiation damage. Further, the licensee should provide information which documents the ability of the described organic jacketing (being relied upon for beta shielding) to withstand the maximum calculated post-accident radiation conditions, otherwise credit for beta shielding cannot be taken.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
October 26, 1982

Docket No. 50-313

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Senior Vice President,  
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*Morton B. Fairhill for*

John F. Stolz, Chief  
Operating Reactors Branch #4  
Division of Licensing

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See next page

Arkansas Power & Light Company

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P. O. Box 551  
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