

April 27, 1983

DISTRIBUTION

Docket File ASLAB  
 NRC PDR Gray File+4  
 L PDR EBlackwood  
 ORB#4 Rdg Hornstein  
 RIngram ORB#3 Rdg  
 GVissing RClark  
 DEisenhut OLynch  
 OELD PKreutzer=3  
 AEOD Gray File+4  
 LHarmon  
 ACRS-10  
 TBarnhart-8  
 LSchneider  
 OGC  
 OPA  
 DBrinkman  
 RDiggs

Docket No. 50-313  
and 50-368

Mr. John M. Griffin, Vice President  
Nuclear Operations  
Arkansas Power & Light Company  
P. O. Box 551  
Little Rock, Arkansas 72203

Dear Mr. Griffin:

Enclosed are corrected pages 8 and 15 of our Safety Evaluation (SE) which was enclosed in our letter dated April 15, 1983 (Amendments Nos. 76 and 43 for ANO-1&2). Page 8 contained an incorrect statement concerning the movement of loads into and out of the auxiliary building. This statement was removed. Page 15 contained a statement relating limiting dose rates to divers. This statement was corrected to refer to the dose to divers.

The corrections are not significant and do not change the conclusions of the SE.

Sincerely,

Original signed by

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

Original signed by

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:  
As Stated

cc w/enclosures:  
See next page

8305110625 830427  
PDR ADOCK 05000313  
P PDR

OFFICE	<del>ORB#4:DL</del>	ORB#4:DL	C-ORB#4:DL	ORB#3:DL	<del>ORB#3:DL</del>	C-ORB#3:DL	
SURNAME	<del>RIngram</del>	GVissing;cf	JStolz	<del>Clark</del>	PKreutzer	RClark	
DATE	<del>4/1/83</del>	4/26/83	4/27/83	4/27/83	4/1/83	4/27/83	

Arkansas Power & Light Company

50-313, Arkansas Nuclear One, Unit 1

cc w/enclosure(s):

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

Mr. Frank Wilson  
Director, Division of Environmental  
Health Protection  
Arkansas Department of Health  
4815 West Markham Street  
Little Rock, Arkansas 72201

Mr. James M. Levine  
General Manager  
Arkansas Nuclear One  
P. O. Box 608  
Russellville, Arkansas 72801

Mr. Leonard Joe Callan  
U.S. Nuclear Regulatory Commission  
P. O. Box 2090  
Russellville, Arkansas 72801

Mr. Robert B. Borsum  
Babcock & Wilcox  
Nuclear Power Generation Division  
Suite 220, 7910 Woodmont Avenue  
Bethesda, Maryland 20814

Mr. Nicholas S. Reynolds  
Debevoise & Liberman  
1200 17th Street, NW  
Washington, DC 20036

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

will have a module configuration with dimensions of four 9 x 9, two 8 x 9, four 9 x 10 and two 8 x 10 feet. These modules will weigh from 13,000 lbs. to 20,300 lbs. The above configuration maintains cell pitch of 10.65 inches at ANO-1 and 9.8 inches at ANO-2 and prevents placement of a fuel assembly anywhere other than a design location.

The proposed neutron absorber fuel racks are designed to seismic Category I criteria. Structural and seismic analyses have been performed by the licensee to verify that the rack design is adequate to withstand normal operating, seismic and accident loading conditions.

#### Rack Handling and Installation

The review of heavy load handling at ANO-1 & 2 is being conducted as part of the ongoing generic review initiated by NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants." The results of that review will be reported as part of Multiplant Action Item C-10. The evaluation provided herein is limited to the heavy load handling activities associated with the proposed spent fuel storage modifications.

Each unit has one seismic Category I overhead crane in the auxiliary building which will be used for removing the existing rack modules and lowering the new modules into the pool. The licensee has stated in its November 5, 1982 submittal that "no loads exceeding 2000 lbs. will be allowed over the fuel assemblies at any time." The TSs for ANO-1 & 2 also prohibit the travel over fuel assemblies in the storage pool of loads in excess of 2000 lbs. Since the weight of a rack module is much greater than 2000 lbs., we conclude that the rack modules will not be carried over the fuel assemblies and that there is reasonable assurance that an accident impacting assemblies in the pool will not occur. All movement of spent fuel racks will be controlled by written administrative procedures which will prohibit movement of the racks over locations in the pool where fuel is stored.

The licensee has committed to establish a program for installation and use of slings which complies with the criteria contained in ANSI B30.9-1971. In NUREG-0612, we concluded that this is acceptable.

The licensee also stated in response to NUREG-0612 that all crane operators and signalmen will be trained in accordance with ANSI B30.2-1976, and no exceptions from the standards are taken regarding training, qualification or operator conduct.

The licensee does not expect any significant increase in dose rates due to the buildup of crud along the sides of the pools. If crud buildup eventually becomes a major contributor to pool dose rates, measures will be taken to reduce such dose rates. The purification system for the pools includes filters and demineralizers to remove crud and will be operating during the modifications of the pools.

The licensee has presented four alternative plans for removal and disposal of the old racks. These are (1,2) burial with or without volume reduction; (3) decontaminate to releasable criteria of Regulatory Guide 1.86 and disposal; (4) to have an outside vendor chemically decontaminate and dispose of the intact racks. The disposal methodology will follow ALARA guidelines for each of the alternatives.

The licensee has an ALARA committee, which reviews all work in radiological controlled areas when the estimated collective dose for any job will exceed 1 man-rem. Some of the actions that will be taken by the licensee to assure that occupational doses during each task of the pool modifications will be ALARA are:

1. A health physicist and diving supervisor will be in direct communication with the divers at all times during the re-racking to monitor for excessive exposure by utilizing portable or hand-held radiation monitoring instruments. The doses will not be permitted to exceed 1 rem whole body.
2. Personnel monitoring devices will be used by all personnel working in the radiologically-controlled area. Additional monitoring of the underwater divers will be done by multiple whole body TLDs and extremity TLDs.
3. Personnel shall be required to wear appropriate protective clothing as determined by the health physicist to preclude contamination.
4. As the racks are pulled out of the water, they will be washed.
5. Area radiation monitors will be used to alarm on a high radiation signal. Actual dose rates can be read locally and in the control room.
6. A portable filtered water vacuum system will be available to remove loosely deposited contamination from the fuel rack surfaces, pool floor and walls near divers' working areas to reduce the radiation exposure.
7. Contamination control measures will be used to prevent the spread of contamination and to protect personnel from internal exposure from radioactive material.