HELPING BUILD ARKANSAS

ARKANSAS POWER & LIGHT COMPANY

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March 16, 1979

DONALD A. RUETER
DIRECTOR
TECHNICAL AND
ENVIRONMENTAL SERVICES

1-039-12

Mr. K. V. Seyfrit, Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Subject: Arkansas Nuclear One-Unit 1
Docket No. 50-313
License No. NPR-51
Non-Routine Report
No. 50-313/79-1
(File: 0520)

Gentlemen:

In accordance with Arkansas Nuclear One - Unit 1, Appendix B Technical Specification 5.6.2(b), we have attached the subject non-routine report concerning the failure to maintain the maximum differential temperature across the condenser below 15°F as required by Tech Spec 2.1.1(a).

Very truly yours,

Donald A. Rueter

Donald A. Rueter

DAR:REI:lg

Attachment

cc: Mr. Norman M. Haller, Director
Office of Management and Program
Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. John G. Davis, Acting Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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8. Designation of Apparent Cause of Occurrence:

Design		Procedure	
Manufacture		Unusual Service Condition Including Environmental	X
Installation/ Construction		Component Failure (See Failure Data)	
Operator	X		

Other (specify)

The abnormally high temperature differential across the condenser was caused by an excessive impingement of Threadfin Shad fish on the circulating water intake screens. Carryover from the screens apparently caused some plugging of the condenser circulating water inlet tube sheets, restricting the flow of cooling water. The lower flow rate resulted in a higher temperature rise. The excessive temperature rise beginning on 2/9/79 was not discovered during the normal daily review of operating conditions.

9. Analysis of Occurrence:

There was no thermal stress to the aquatic ecosystem as the temperature rate of increase was slow, the maximum discharge temperature was less than 52°F, and the temperature differential was only exceeded by 0.45°F. The higher than normal temperature differential caused no operating difficulties.

10. Corrective Action:

The condenser inlet water box isolation valves are being cycled, as necessary, to allow the debris to wash off the condenser circulating water inlet tube sheets. This improves the flow rate. Monitoring the condenser , differential temperature has been improved by displaying the condenser differential and outlet temperatures on a plant computer trend recorder.

11. Failure Data:

There have been no similar occurrences.