

JUN 18 1975

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Docket No. 50-313

Plant: Arkansas Nuclear One - Unit 1 (ANO-1)

Utility: Arkansas Power & Light Company (AP&L)

SUMMARY OF JUNE 11, 1975 APPEAL MEETING WITH ARKANSAS POWER & LIGHT COMPANY

Background

In late November 1974, AP&L informed the staff of the threadfin shad impingements being experienced at ANO-1. The staff visited the site on December 9, 1975. On January 9, 1975, the staff made certain recommendations to AP&L to determine the significance of the shad impingements and requested proposed changes to ANO-1's ETS. AP&L responded to our recommendations on February 14, 1975. The staff met with AP&L representatives on this matter on March 5, 1975, in Bethesda, Maryland, and again on March 26, 1975, in Little Rock, Arkansas. Based on these meetings, AP&L submitted proposed changes to their environmental technical specifications (ETS), on April 11, 1975. Upon completion of the review of proposed ETS changes, the staff prepared Amendment No. 3 to the Technical Specifications of Operating License DPR-51 and transmitted that amendment to AP&L on May 15, 1975. In that letter to staff offered to meet with AP&L to discuss the technical basis for the ETS changes. By letter of June 2, 1975, AP&L objected to several of the proposed changes and requested a meeting with NRC management and staff. On June 11, 1975, AP&L management and staff met with NRC management and staff to discuss the proposed changes. A list of attendees is enclosed. AP&L's June 2, 1975 letter served as the basis for the meeting agenda. A summary of the salient points of the meeting follows.

1. Frequency of Impingement Sampling

The staff requested that impingement sampling be performed 3 times per week rather than 2 times per week as proposed by AP&L.

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The staff's position was based on the fact that the 3 times per week frequency would result in a more accurate estimate of the population of impinged fish. After discussion it was agreed that during the critical period of threadfin shad impingements (October 1 through March 31), impingement sampling would be performed 3 times per week and during the period of April 1 through September 30 impingement sampling would be performed 2 times per week.

2. Threadfin Shad Population Study

The staff position re: the threadfin shad population study was explained. Since the primary effect of current ANO-1 operation involves the removal of threadfin shad from Lake Dardanelle and since threadfin shad are the primary forage fish for the game and commercial species, demonstration of no appreciable harm to the threadfin shad population may be sufficient to assure that the current high levels of the desirable game and commercial fishes in Lake Dardanelle are not being affected. Such a demonstration can be accomplished by monitoring the productivity of the shad by means of the proposed absolute population density study. AP&L maintained that in view of the large natural winter die-offs of threadfin shad and the cost of conducting the study, such a study was not warranted, Arkansas Fish and Game Commission supported AP&L's position. AP&L also questioned whether the methodology demonstrated to date was applicable to Lake Dardanelle.

After considerable discussions, all parties agreed that there must be some demonstration that the game and commercial fish species of Lake Dardanelle are not being adversely affected by operation of ANO-1. The applicant indicated that the environmental monitoring programs currently underway were developed in cooperation with various Federal (Bureau of Wildlife and Sports Fishery, Corps of Engineers) and local (Arkansas Fish and Game Commission, Arkansas Pollution Control Board) agencies. AP&L indicated that they are committed to the Arkansas agencies to take corrective action to mitigate any adverse effects noted by these programs and attributable to operation of ANO-1.

All parties agreed to the following, in lieu of conducting the staff proposed threadfin shad population study:

- a. Augment the current AP&L program of conducting cove rotenone surveys annually in two locations, with

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additional cove rotenone surveys to be conducted by the State Game and Fish Commission. The State will conduct three cove rotenone surveys (Spring, Summer, and late Fall) at three locations (to be specified later) in Lake Dardanelle. In 1975, the State will conduct the Summer and late Fall surveys. The data from these surveys will be used to estimate populations of the various fish species (including threadfin shad) of Lake Dardanelle.

- b. AP&L will provide staff with additional data (to be made available by Arkansas Fish and Game), regarding previous fish population surveys conducted on Lake Dardanelle.
- c. AP&L will consult with the Federal and local agencies involved in reviewing the results from the monitoring programs conducted by AP&L regarding monitoring program modifications they may deem to necessary based on their evaluation of the high threadfin shad impingements observed at ANO-1 this past winter.

3. Swim Speed and Thermal Tolerance of Threadfin Shad Studies

The staff recommended additional studies, i.e., thermal effects on swim speed and the thermal effects on mortality of threadfin shad. These studies should result in supportive data characterizing the plant-related impact on the threadfin shad population and should indicate modifications, if any, to plant operation during periods of expected peak impingement that will lessen fish mortality.

AP&L maintained that cost and problems involved in catching and handling delicate threadfin shad indicated such a study may not be warranted. Arkansas Fish and Game concurred with AP&L that such a study would be difficult to conduct on Lake Dardanelle.

It was agreed that this matter would be discussed by AP&L with the various Federal and local agencies involved in establishing and reviewing AP&L's current environmental monitoring program to determine their recommendations regarding the conduct of the proposed studies.

4. Diel Changes in Impingement Levels

The recommended study was proposed to determine daily fluctuations of peak impingement of threadfin shad. Such information would indicate whether modifications, if any, to current operating procedures would reduce impingement levels. AP&L agreed to conduct

the study as proposed.

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### 5. Termination of Fish Grinding Operations

The staff recommended that fish grinding operations be discontinued effective October 1, 1975. The discharge of organic material into the discharge embayment during winter months may lead to degradation of both water quality and alteration of the resident fishery. Additionally, the discharge permit granted by EPA (Permit Number AR 0001392) states that there will be no discharge of floating solids.

It was agreed that the proposed change be modified to indicate that disposal of impingement fish shall be by a method approved by EPA and the Arkansas State Pollution Control Board.

### 6. Thermal Monitoring in Illinois Bayou

AP&L indicated in their April 11, 1975 letter, that operating data had shown the Illinois Bayou temperature is correlated to intake water box temperature and that monitoring of the Bayou is therefore not necessary. The staff stated that both AP&L's and the staff's hydraulic models predicted a certain amount of thermal recirculation. In the absence of the actual thermal plume mapping data for the season in which shad impingement is most severe the staff hesitates to discard the prediction of the models. The validity of data provided by AP&L (Table 1 of the April 11, 1975 letter) to demonstrate that the inlet water box temperature is identical to the temperature in Illinois Bayou was questioned. The staff stated its belief that the data are incomplete and do not adequately demonstrate that a correlation exists between the actual temperature in the Bayou and the recorded inlet water box temperature.

AP&L agreed to collect additional operating data to demonstrate that a correlation between the Bayou and intake water box temperature does exist.

The additional comments contained in AP&L's June 2, 1975 letter were discussed and were satisfactorily resolved.

At the conclusion of the meeting, AP&L agreed to submit to NRC the following information no later than July 7, 1975:

- a. Revised ETS on fish impingement to include sampling 3 times per week during critical period.

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- b. Revised ETS, program description and schedule of implementation for cove rotenone surveys.
- c. Plans and schedules for meeting with Federal and local agencies previously consulted by AP&L in establishing their environmental monitoring program. A list of expected attendees should also be provided.
- d. Additional fish population data for Lake Dardanelle made available by Arkansas Fish and Game.
- e. Special study ETS for determining diel changes in impingement levels.
- f. Plans for and/or results of AP&L consultations with EPA and Arkansas Board of Pollution Control regarding disposal of impinged fish.
- g. Plans and schedules, including program description, for demonstrating that the temperature of Illinois Bayou can be correlated to the intake water box temperature.

Original signed by  
F. J. Miraglia

F. J. Miraglia, Project Manager  
Environmental Projects Branch 3  
Division of Reactor Licensing

Enclosures:  
As stated

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DATE →	6/17/75	6/17/75				

ENCLOSURE 1

ATTENDEES

JUNE 11, 1975 APPEAL MEETING WITH AP&L

ARKANSAS NUCLEAR ONE UNIT 1

AP&L

J. D. Phillips	Senior Vice President
C. L. Steel	Vice President
J. H. Woodward	Director Power Production
W. Cavanaugh	Manager Nuclear Services
D. Rueter	Licensing Supervisor

ARKANSAS GAME & FISH COMMISSION

A. H. Hulsey	Director
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NRC

D. R. Muller	Assistant Director of Environmental Projects
F. J. Miraglia	Environmental Project Manager
R. Baird	Chief, Environmental Specialists Branch
H. Berkson	Senior Environmental Specialist
C. W. Billups	Environmental Specialist
M. T. Masnik	Environmental Specialist
W. E. Knapp	Environmental Specialist
R. H. Moore	Head, Applied Statistics Group
S. Koblusek	Cost/Benefit Branch

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R. Ireland  
R. A. Purple  
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P. Collins  
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RL Project Manager - F. Anderson  
Attorney, ELD - R. Culp