ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

March 21, 1983

ØCANØ38312

Director of Nuclear Reactor Regulation
ATTN: Mr. J. F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Director of Nuclear Reactor Regulation
ATTN: Mr. Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
Additional Information Concerning
Spent Fuel Storage Expansion

Gentlemen:

A telecon on March 9, 1983, with Mr. Guy Vissing and Mr. Jim Wing of the NRC resulted in a request for additional information to our original response ØCANØ383Ø4 submitted on March 3, 1983, concerning the proposed spent fuel storage expansion. Attached is our response to your request.

Very truly yours,

John R. Marshall
Manager, Licensing

JRM:MD:sl

Attachment

A001

The following response provides additional information requested per telecon on March 9, 1983, by Mr. Guy Vissing (NRC Project Manager, ANO-1) and Mr. Jim Wing (NRC Reviewer, Chemistry Section). This information should further clarify our original response (ØCANØ28311) to NRC letter dated January 10, 1983 (ØCNAØ183Ø9).

Response:

The spent fuel pools at ANO are typically sampled following major evolutions such as refuelings or whenever the demineralizer is operated. Once the pool is returned to a steady state condition, the required chemistry limits are typically verified after major evolutions. Our philosophy at ANO is that the probability of these limits changing once a steady state condition is established is extremely small.

The basis of this philosophy is due to many factors. The atmosphere in the building is benign and the access to this area is strictly enforced. Operations personnel perform daily surveillance inspecting the water level, observing the general condition of the pool, and the refueling floor. Any loads which are lifted over the pool must follow specific procedures to comply with NUREG 0612, Heavy Loads Requirements. These precautions include checking crane interlocks, the use of specific load paths and operation by a qualified crane operator. Therefore, the probability of dropping an object in the pool undetected, which would adversely affect the chemistry of the pool is unlikely. Makeup water to the spent fuel pool is supplied from RWT/BWST which meets reactor water chemistry specifications. Based upon this type of program, it is estimated that ANO takes an average of three chemistry samples per year. To date, there has not been any significant chemistry problems.

The current sampling philosophy for the spent fuel pool water at ANO has been adequate in maintaining water quality; however, we concur that it is prudent to establish a regular sampling program at ANO at this time. Therefore, ANO will include in their monthly samples of spent fuel pool water an analysis of the pH, chloride and fluoride concentration in addition to the boron concentration currently being sampled. This program should be adequate to detect and correct a corrosive condition prior to the initiation of any damage to equipment in the pools.

This sampling program will utilize the limits listed below. These limits are similar to RCS specifications. Less stringent limits may be acceptable; however, the technical basis to support this position has not been developed since it is felt that these limits are achievable.

Spent Fuel Pool Water Chemistry Requirements

ANO Unit 1

Boron Concentration	>1800 ppm*
Maximum Chlorides	0.15 ppm
pH	4.5 - 10.6
Maximum Flourides	0.15 ppm

ANO Unit 2

Boron Concentration -	Min.	1731 ppm*
	Max.	2250 ppm
Maximum Chlorides		0.15 ppm
pH		4.5-10.6
Maximum Flourides		0.15 ppm

*These boron concentrations are typical of refueling boron concentrations which are specified for each operating cycle. The proposed technical specifications currently being reviewed by the NRC, specify 1600 ppm for both units, with regard to spent fuel rack design. Concentrations will be maintained above 1600 ppm and at a level consonant with refueling requirements.