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

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2-079-15

Director of Nuclear Reactor Regulation
ATTN: Mr. Darrell G. Eisenhut
Acting Director
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Arkansas Nuclear One-Units 1 & 2
Docket Nos. 50-313 & 50-368
License Nos. DPR-51 & NPF-6
PWR Feedwater Lines
(File 4400, 2-4400)

Gentlemen:

The following is provided in response to your letter of May 25, 1979, concerning PWR Feedwater lines.

Fabrication History

Item 3

Provide the NDE performed during and after fabrication of the weld joints requested in question 2.

Response - Unit 1

Radiography was performed on 100% of the 14 inch and 18 inch main feedwater piping welds. Welds in risers received magnetic particle testing after fabrication.

Response - Unit 2

All welds described in item 2 received 100% radiography.

Item 4

Provide the Code edition to which the feedwater piping system was fabricated.

Response - Unit 1

The feedwater system was fabriated in accordance with ANSI B31.7-Class 2, 1968 edition.

Response - Unit 2

The feedwater system was fabricated in accordance with ASME Section III-Class 2, 1971 edition and summer 1972 Addenda.

Item 5

State the fracture toughness requirements, if any, for the feedwater piping system.

Response - Unit 1

There were no fracture toughness requirements for ANO-1.

Response - Unit 2

Impact testing was required for feedwater piping inside containment. The impact test temperature was specified as 34°F The test requirements and acceptance criteria are stated in ASME Section III, NB-2332, Summer 72 Addenda.

Preservice/Inservice Inspection and Operating History

Item 1

State whether the feedwater system welds received a preservice inspection in accordance with ASME B&PV Code, Section XI.

Response - Unit 1

Section XI did not apply to ANO-1 until April 19, 1978. Therefore, Unit 1 feedwater system welds did not receive a preservice inspection in accordance with Section XI.

Response - Unit 2

Feedwater system welds have received a preservice inspection in accordance with Section XI.

Item 2

Provide the extent of inservice inspection performed on the feedwater pipe to steam generator nozzle welds. Include the results of the examinations, any corrective actions taken and causes of any failures.

Response - Unit 1

The B&W steam generator design does not include "feedwater pipe to steam generator nozzle welds."

Response - Unit 2

There has been no inservice inspection of feedwater pipe to steam generator nozzle welds.

Item 3

Provide the schedule and extent of inservice inspection for the the feedwater system for the next inspection interval.

Response- Unit 1

The schedule and extent of inservice inspection for the Feedwater System is based on the requirements of 10 CFR Part 50, Section 50.55a. In accordance with the Code edition and Addenda in effect, eleven feedwater piping welds are scheduled for 100% volumetric examination during the next inspection interval.

Response - Unit 2

The schedule and extent of inservice inspection for the feedwater system is based on the requirements of 10 CFR Part 50, Section 50.55a. Due to being in power ascention testing at this time, we have not formulated a detailed inservice inspection program for Unit 2 yet.

Item 4

Provide any history of water hammer or vibration in the feedwater system and design changes and/or action taken to prevent these occurrences.

Response-Unit 1

The Unit 1 feedwater system has had no waterhammer or excess vibration problems.

Response - Unit 2

Prior to feedwater system operation, the sparger and feedwater piping were modified to prevent partial draining during loss of feedwater and the subsequent water-hammer upon re-initiation of feedwater injection. The sparger was modified to inject feedwater upward and piping was rerouted to remain below the steam generator nozzels.

Item 5

Provide a description of feedwater chemistry controls and a summary of chemistry data.

Response - Unit 1

Chemistry is controlled with all volatile treatment and full flow demineralizers. We make every effort to maintain our secondary chemistry within the following B&W recommended limits:

Dissolved Oxygen	7 ppb
Silica	20 ppb
Total Iron	10 ppb
Total Copper	2 ppb
Total Solids	50 ppb
Cation Conductivity	.5 umho
pH	8.8 - 9.2

Response - Unit 2

Chemistry is controlled with all volatile treatment. A summary of chemistry data follows:

Dissolved Oxygen	10 ppb
Silica	10 ppb
Total Iron	10 ppb
Total Copper	10 ppb
Cation Conductivity	.5 umho
pH	8.8 -9.2

Very truly yours,

David C. Trimble

David C. Trimble

DCT/MOW/ew