1. Abnormal Occurrence Report No. 50-313/74-11

2. Report Date: 11/15/74 3. Occurrence Date: 11/7/74

4. Facility: Arkansas Nuclear One-Unit 1
Russellville, Arkansas

5. Identification of Occurrence:

Reactor Building Spray Pump P35B Suction Line Leak

6. Conditions Prior to Occurrence:

Steady-State Power		Reactor Power	0 MWth
Hot Standby		Net Output	0 MWe
Cold Shutdown	X	Percent of Full Power	0 %
Refueling Shutdown			
Routine Startup Operation			
Routine Shutdown Operation			

Load Changes During Routine Power Operation

Other (Specify)

7. Description of Occurrence:

At 1450 hours on 11/7/74, during a routine operator inspection, a leak was discovered in Reactor Building Spray Pump P35B suction line between valves BW5B and BW6B. Following repair and completion of a satisfactory hydrostatic test on 11/12/74, an additional leak was discovered at 0630 hours on 11/13/74, near a new weld that was made during the repair of the leak discovered on 11/7/74. An additional inspection was made of the spray line and a small leak was found in the spray pumps suction crossover line between valves BW7A and BW7B. A crack was found in the parent metal near a field weld in each case.

8004170533

8. Designation of Apparent Cause of Occurrence:

Design	____	Procedure	____
Manufacture	____	Unusual Service Condition Including Environmental	____
Installation/ Construction	____		
Operator	____	Component Failure	____

Other (Specify) X Not yet determined.

Note: It is our position that the crossover line leak is not an abnormal occurrence since that section of pipe is isolated under normal modes required for spray system operation.

9. Analysis of Occurrence:

At the time of the occurrence, the reactor was in cold shutdown conditions on 11/7/74. On 11/13/74, the reactor was in hot shutdown conditions. There was no hazard to the health and safety of the public or plant personnel due to the prompt identification and the fact that only one spray pump was required to be operable prior to criticality, per Technical Specifications 3.3.

10. Corrective Action:

A spool piece will be removed from each section of pipe where the leak occurred with the area of failure undisturbed for metallurgical examination. A new spool piece will be installed, using qualified welders and procedures. The results of the metallurgical examination will be used to determine if additional corrective measures are necessary.

11. Failure Data:

These are the second and third leaks in the vicinity of a weld in this type of pipe (Schedule 10), but it is not known at this time if any of the three are caused by the same mode of failure. The first leak was reported in Abnormal Occurrence Report No. 50-313/74-2.

The results of the metallurgical examination will be forwarded upon availability.

12. Reviews and Approvals:

Reviewed and Approved by: Plant Safety Committee Yes (X) No ( )

Plant Superintendent Yes (X) No ( )

Reference: JWA-662 Date: 11/14/74

Reviewed by: Donald A. Ruether Date: 11/15/74
Licensing Supervisor

Approved by: [signature] Date: 11-15-74
Safety Review Committee

Approved by: [signature] Date: 11/15/74
Manager of Nuclear Services

Approved by: [signature] Date: 11-15-74
Director of Power Production

Approved by: [signature] Date: 11-15-74
Senior Vice President