

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION IV

IE Inspection Report No. 50-313/76-09

Docket No. 50-313

Licensee: Arkansas Power & Light Company  
Sixth and Pine Streets  
Pine Bluff, Arkansas 71601

License No. DPR-51

Category C

Facility: Arkansas Nuclear One, Unit 1

Location: Russellville, Arkansas

Type of Licensee: B&W, PWR, 2568 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: August 10-13, 1976

Dates of Previous Inspection: June 16-18, 1976

Principal Inspector: M. W. Dickerson  
M. W. Dickerson, Reactor Inspector

8/18/76  
Date

Accompanying Inspector: None

Reviewed By: G. L. Madsen  
G. L. Madsen, Chief, Reactor Operations and  
Nuclear Support Branch

8/18/76  
Date

8004160387

SUMMARY OF FINDINGS

I. Enforcement Action

A. Violation

None identified during this inspection.

B. Infractions

Technical Specification 3.5.2.5.4 requires that, "Except for physics tests, power shall not be increased above the power level cutoff unless the Xenon reactivity is within 10 percent of the equilibrium value for operation at rated power and asymptotically approaching stability."

Contrary to the above, the power level cutoff was exceeded due to an operator error without proper Xenon reactivity worth. (DETAILS, paragraph 6)

This item is an infraction.

C. Deficiencies

None identified during this inspection.

II. Licensee's Action on Previously Identified Enforcement Matters

75-02 IA/3 Failure to Document Temporary Changes

The corrective action discussed by AP&L in their undated letter to the NRC relative to temporary changes to procedures 1104.04, "Decay Heat Removal Operating Procedure," and 1104.05, "RB Spray System Operation," has been reviewed and there are no additional questions at this time. This matter is considered closed. (DETAILS, paragraph 2)

75-02 IB/2 Reporting Requirements

The inspector reviewed the licensee's response in their undated letter to the NRC relative to consideration of a trip from 100% full power on February 22, 1975, as an unusual event, and their subsequent letter to the NRC dated July 25, 1975. As a result of this review there are no further questions at this time. This matter is considered resolved.

75-06 IC Reporting Requirements

The inspector reviewed the licensee's response relative to reporting of UE 75-2 contained in their letter to the NRC dated July 21, 1975.

(continued)

As a result of this review there are no additional questions at this time and this matter is considered resolved.

75-07 IC/2 Training of Maintenance Personnel

A training program has been formulated which includes training for maintenance personnel. A schedule in support of the training has also been developed. This matter is considered resolved. (DETAILS, paragraph 4)

76-07 IB Changes to Procedures Without Appropriate Review and Approval

The inspector reviewed the licensee's response described in their letter dated July 20, 1976 with respect to changes to procedures 1104.02, "Makeup and Purification System," and 1104.06, "Spent Fuel Cooling System," which had been changed without review by the Plant Safety Committee and/or without evidence of approval as required by TS 6.7. As a result of the review, there are no additional questions at this time and this matter is considered resolved. (DETAILS, paragraph 2)

III. Design Changes

Not inspected.

IV. Unusual Occurrences

None identified during the inspection.

V. Other Significant Findings

A. Current Findings

1. Plant Status

During the inspection, the plant was in a shutdown status to replace reactor coolant pump seals on RC pumps B, C and D. Additionally, maintenance was being performed on the control rod drive stator for group 2 rod 3, which had failed.

The plant had been down since 9:54 p.m. on August 6, 1976. Startup of the facility was anticipated to take place August 14, 1976.

2. Unresolved Items

No new unresolved items were noted during this inspection.

(continued)

B. Status of Previously Unresolved Items

75-2/1 Sodium Thiosulphate Tank Dilution

The system is being modified to accommodate a separate recirculation pump for each tank (sodium thiosulphate and sodium hydroxide tanks) so that dilution will not occur. Installation of the pumps are in progress and is expected to be completed about January 1977. This matter is considered closed.

75-2/2 Control Room Fire System

A report of the failure of the halon fire system to maintain the required concentration for the specified ten minute period in the testing of the control room was sent to NEL-PIA by AP&L letter NDC-4481, dated June 9, 1976. This matter will remain open pending an NEL-PIA reply.

75-2/3 Retention of System Procedure Checklists

A review of procedure 1102.02, Rev. 5, dated August 3, 1976, "Plant Startup," and procedure 1005.09, Rev. 0, dated May 31, 1975, "Plant Records Management," established that neither procedure specifically requires the retention of electrical or mechanical alignment checklists. This matter is considered resolved.

75-2/4 Changes in ES Breaker Alignment Checklist

The additional components noted on the ES breaker alignment checklist as reported in inspection report 75-02 have been incorporated in checklist G by revision 2, temporary change 2, to procedure 1107.01, "ES Switchgear Alignment," as approved August 13, 1975. This matter is considered closed.

75-2/5 Reactor Building Cooler Backdraft Damper

Backdraft dampers on the reactor building coolers are maintained in the open position and Checklist G to procedure 1107.01 has been revised to reflect this condition. Revision 2 to this procedure with temporary change 2 providing for the open damper was approved August 13, 1976. This matter is considered resolved. (DETAILS, paragraph 3)

VI. Management Meeting

A. Entrance Meeting

A preinspection meeting was held with Messrs. J. W. Anderson and G. H. Miller on August 10, 1976.

(continued)

Mr. Anderson was informed that the following items would be reviewed during the inspection:

1. Organization and Administration
2. Training
3. Requalification Training
4. Licensee Event Reports
5. Previous Items of Noncompliance
6. Previous Unresolved Items

B. Management Interview

At the conclusion of the inspection on August 13, 1976, an exit meeting was held with representatives of the ANO-1 plant staff. The following individuals were present:

J. W. Anderson, Jr., Plant Superintendent  
G. H. Miller, Assistant Plant Supervisor  
L. W. Humphrey, Quality Assurance Engineer  
L. Alexander, Quality Control Engineer

The inspector discussed the following items:

1. The noncompliance as a result of the power increase in violation of TS 3.5.2.5.4. (DETAILS, paragraph 6)
2. The resolution of previous items of noncompliance. (Section II of the Summary of Findings)
3. The status of previously identified unresolved items. (Section V-R of the Summary of Findings)

(continued)



DETAILS

1. Persons Contacted

The following individuals, in addition to those listed under the Management Interview section of this report, were contacted during the inspection:

Arkansas Power & Light Company (AP&L)

J. Robertson, Assistant Operations Supervisor  
H. L. Grubbs, Shift Supervisor, Operations  
B. T. Moon, Shift Supervisor, Operations  
D. C. Trimble, Training Coordinator  
T. L. Green, Assistant Training Coordinator  
R. G. Carroll, Health Physics Supervisor

2. Previously Identified Enforcement Matters

75-02 IA/3 Failure to Document Temporary Changes

The inspector reviewed the corrective action described in the AP&L undated letter to the NRC relative to temporary changes to procedures 1104.04, "Decay Heat Removal Operating Procedure," and 1104.05, "RB Spray System Operation."

The review established that revision 4 and temporary change 2 to 1104.04, including supplement 1, had been approved June 10, 1975. Additionally, revision 3 and temporary change 2 to 1104.04, including supplement 3 had been approved June 10, 1975. Each of the approved procedures now contain those temporary changes which previously had not been properly approved. This matter is considered resolved.

76-07 IB Changes to Procedures Without Appropriate Review and Approval

The inspector reviewed the licensee's response described in their letter dated July 20, 1976 to NRC relative to changes to procedures without the appropriate review by the Plant Safety Committee and/or proper approval as required by TS 6.7. The review established that changes to procedures 1104.02, "Makeup and Purification System," and 1104.06, "Spent Fuel Cooling System," had been made, reviewed, and were properly approved. The changes were contained in revision 4, temporary change 1 to 1104.02 and in revision 4, temporary change 2 to 1104.06. The approval dates were July 20, 1976 and July 16, 1976, respectively. This matter is considered resolved.

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3. Reactor Building Cooler Backdraft Dampers (75-2/5)

The inspector reviewed records relative to the maintenance of the RB cooler backdraft dampers in the open position rather than closed as originally specified by checklist G to procedure 1107.01, "ES Switchgear Alignment," as noted during the referenced inspection. The review established that revision 2, with temporary change 2 to this procedure approved August 13, 1976, now reflects that the dampers are to be maintained in the open position. Additionally, AP&L letter to Bechtel, dated September 8, 1975, "ANO-1 Containment Cooler Backdraft Dampers," evaluates this condition and concludes, "Even under the worst condition with the backdraft dampers and bypass dampers of two idle units open, the two units can be expected to maintain the required temperature during the DBA."

As a result of the above review by the staff of ANO-1 and the approved procedure, dated August 13, 1976, this matter is considered resolved.

4. Training and Regualification training

The training and requalification training program for ANO-1 is contained in the memorandum JWA-1554, dated September 23, 1975, "Arkansas Nuclear One Training Plan," and in the Special Order OPS-2, dated June 23, 1975, "Implementation of Standardized Hot License Training Program." The plan contains the formal training and retraining required for new employees, temporary employees, non-licensed personnel, licensed personnel, technicians, and craft personnel. Included is training relative to administrative controls, radiological health and safety, industrial safety, controlled access, security procedures, emergency plans, an initial QA indoctrination and QA retraining. For technicians and craft personnel the plan also includes on-the-job training and formal technical training.

Responsibility for the training program is assigned to the Training Coordinator. His responsibilities are described in a position description and in the FSAR Section 12.1.3.F and were reviewed by the inspector. The Training Coordinator is assisted in his duties by an Assistant Training Coordinator.

A review of the schedule for requalification training established that it is composed of ten lecture groups to be covered on a yearly basis. The ten lecture groups include a total of 34 separate lectures. Each group lecture is given once per week for five weeks and provides for attendance by each of the rotating shifts. Documentation of attendance at these lectures is provided by completion of an attendance report TF-07. Training aids utilized are drawings, procedures and a variety of projection media.

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- 76/08 Failure of DG #1 to start on simulated ES actuation
- 76/10 Leak in socket weld, decay heat flow element instrument tap
- 76/12 Socket weld leak in Primary Makeup Pump P36C suction relief line
- 76/13 Leak in emergency feedwater line to "A" steam generator
- 76/17 Exceeding power level cutoff (82.5%) without proper xenon reactivity conditions per Technical Specification 3.5.2.5.4.

With respect to 76/17, the licensee was informed that this was considered an infraction and would be identified in this report as a nonconformance. However, no response would be required since the event had been reported in a timely manner and that the required corrective action, as described in Reportable Occurrence Report 76/17 dated July 26, 1976, had been completed.