

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

IE Inspection Report No. 50-313/75-06

Docket No. 50-313

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

License No.: DPR-51

Category C

Facility: Arkansas Nuclear One, Unit 1

Location: Russellville, Arkansas

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

Type of Inspection: Routine, Unannounced

Dates of Inspection: June 25-27, 1975

Dates of Previous Inspection: June 11-13, 1975

Principal Inspector: Donald G. Anderson
D. G. Anderson, Reactor Inspector

7/2/75
Date

Other Accompanying Personnel: None

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

7/2/75
Date

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SUMMARY OF FINDINGS

I. Enforcement Action

A. Violations

None identified by the inspector.

B. Infractions

None identified by the inspector.

C. Deficiencies

Reporting Requirements

The inspector identified that contrary to Section 6.12.3.2 of the Technical Specifications, a written report of an Unusual Event (UE 75/02) was not submitted within the 30-day required period.

II. Licensee Action on Previously Identified Enforcement Matters

The actions taken by the licensee 1/ to implement the maintenance of records related to the requalification training program have been completed.

This item is closed.

III. Design Changes

Not inspected.

IV. Unusual Occurrences

7504-1 - Deviation in the Design Requirements for Iodine Precipitation During a LOCA

This item was identified by the licensee previously and reported to the inspector on May 8, 1975 as UE 75/02. The 30-day required (TS 6.12.3.2) report was not received until June 27, 1975 and consequently constitutes an item of noncompliance with reporting requirements.

This item remains open.

(continued)

1/ Letter dated 6/6/75, Cavanaugh (AP&L) to Madsen (IE/IV).

V. Other Significant Findings

A. 7504-2 Fire Stop Inspection

The licensee's representative is reviewing material specifications and drawings for fire stop installation at both ANO-1 and ANO-2. A comprehensive report will be submitted on 7/14/75.

This item remains open.

B. 7415-1 Generator Separation Test at Power

The licensee performed the generator separation test from full power. The reactor did not trip during the test and all test objectives were met.

This item is closed.

C. 7414-7 Reactor Building Spray Line Cracks

The licensee is performing a leak inspection on a once per shift basis. A final report concerning this item will be submitted by the licensee's representative in July 1975.

This item remains open.

D. 7504-3 Seismic Hydraulic Shock and Sway Suppressors

The licensee indicated that periodic surveillance of snubbers will be continued according to written approved procedures.

This item is closed.

E. 7506-1 Leak in Sensor Line to the Low Pressure Outer Seal Cavity of "B" Reactor Coolant Pump

The licensee reported (AO 75-03) a circumferential (180°) crack in a 3/4" line which originates at the low pressure outer seal cavity of "B" RCP. The line was isolated and replaced.

VI. Management Exit Interview

The inspection findings of June 25-27, 1975 were discussed with Mr. J. W. Anderson, Jr., Plant Superintendent and members of his staff at the conclusion of the inspection. The noncompliance item associated with failure to submit a written report as UE 75/02 within the required 30-day reporting period was discussed. The following items were discussed during the exit interview:

(continued)

1. Generator Separations Test
2. Snubber Surveillance
3. Fire Stops
4. Building Spray
5. Semiannual Reporting
6. Maintenance Activities
7. AO 75/C3

The inspector indicated satisfaction with the progress or completion status associated with each of the above noted items.

(continued)

DETAILS

1. Persons Contacted

Arkansas Power & Light Company (AP&L)

J. W. Anderson, Jr., Plant Superintendent
G. H. Miller, Assistant Plant Superintendent
C. A. Halbert, Technical Support Engineer
B. A. Terwilliger, Supervisor of Plant Operations
T. Martin, Maintenance Supervisor
T. Cogburn, Nuclear Engineer
R. G. Carroll, Health Physics Supervisor
L. Alexander, Quality Control Inspector
C. R. Wright, Quality Control Inspector
R. D. Gillespie, Chemist
K. W. Cook, Chemist
T. E. Tubb, Senior Chemist
B. G. Parker, Shift Supervisor
T. C. Baker, Chemistry and Environmental Supervisor
V. Kinsey, Secretary, PSC
D. Trimble, Training Coordinator

2. 7504-2 Fire Stop Inspection

The inspector reviewed a letter ^{2/} which detailed the deficiencies noted during IE Inspection No. 50-313/75-04 and the corrective action recommended by Bechtel. In particular, a final report will be submitted by Bechtel on 7/14/75 which will contain an evaluation of these deficiencies and recommend action to be taken to correct them. This report will also address itself to design procedures which will be implemented for ANO-1, Unit 2, to control the design and construction of fire stops. Instructions for fire stops will be expanded to include a more comprehensive description of fire stop use, and material application requirements, with special emphasis on manufactures recommended procedure for application of flamemastic. A specific requirement will be included for obtaining engineering approval prior to the use of materials not included in the "Notes and Details" section of Drawing E-59. Also, specific instructions and details will be included for fire stops at wall and floor conduit sleeves. A new detail sheet will also be provided to describe conduit seals (Packing the conduit with inorganic wool covered with flamemastic). With regard to the use of GERTV Silicone Rubber RTV 102 as a seal, Bechtel is presently investigating the use of other noncombustible sealing materials at ANO-1. This evaluation will also be covered in the final report.

This item remains open pending review of final report.

(continued)

^{2/} Letter dated 6/2/75, E. H. Smith - Bechtel Power Corporation to W. Cavanaugh III - AP&L.

3. 7415-1 Generator Separation Test at Power

The licensee performed the generator separation test from 99.24% full power. This test is required as a part of the power escalation test program for ANO-1 3/. The purpose of this test was to verify that the unit can accommodate a generator load rejection from 100% full power without exceeding safety limits. The test is also conducted to establish that the turbine generator will not exceed its design speed and that the plant electrical system will perform as designed for this transient test even though the electrical system may be subject to frequencies in excess of 60 hz. The following Station Operating Procedures were utilized for this test:

- a. OP 1202.01, Load Rejection
- b. OP 1202.03, Turbine Trip
- c. OP 1202.04, Reactor Trip

At 1305 on 5/30/75, test number 800.25, Generator Separation at Power, was initiated by opening output breakers 5114 and 5118 and subsequently separating the unit 1 generator from the grid. After the initiation of these actions, the reactor ran back to 15% full power automatically as described with the use of manual pressurizer spray. Reactor Coolant system pressure was continuously maintained below RCS pressure and temperature trip set points throughout the test. The auxiliary governor acted to maintain turbine speed below the over speed trip set point. The maximum turbine speed reached during the test was 1896 rpm (63.2 hz). The governor control then caused over compensation to approximately 57.1 hz and several smaller oscillations resulted before control at 60 hz was established. Generator load dropped and was then maintained at house auxiliary load through the auxiliary transformer. In summary, the inspector verified by a review of test results that the reactor did not trip during the transient and that all test objectives were met.

This item is closed.

4. 7504-3 Seismic Hydraulic Shock and Sway Suppressors

The inspector continued the review of this item. It was noted that during the past year at least five job orders have been issued for maintenance or inspection of snubbers at ANO-1. The inspections are performed under the guidelines of the following procedure:

OP 1304.84 - Hydraulic Shock Suppression (approved 4/18/74)

The licensee indicated that periodic surveillance of snubbers will be continued.

This item is closed

3/ ANO-1, FSAR, Volume III, Section 14.1.2.8.3.

5. Leak in a Sensor Line to the Low Pressure Outer Seal Cavity of "B" Coolant Pump (AO 75/03)

The licensee reported previously (6/20/75) a visible crack of 180° in circumference in a socket weld of a 3/4" line to a pressure transducer. The line originates at the low pressure outer seal cavity of "B" reactor coolant pump. The crack was located on the upstream side of valve RBV 6510F and was isolable. A replacement line was fabricated and welded in place of the leaking line. Full anti-contamination clothing and air packs were worn during these maintenance activities.

6. Attendance at Plant Safety Committee Meeting

a. The inspector attended the 6/25/75 meeting of the Plant Safety Committee (PSC). The inspector noted that:

- (1) The quorum present and membership was as specified in 6.4.1 of the Technical Specifications.
- (2) The meeting was conducted according to a previously prepared and approved agenda.

b. Matters brought before the PSC during this meeting were:

- (1) AO 75/03 review.
- (2) Review of certain sections of the Emergency Plan.
- (3) Procedural review.

The inspector had no comments on this item.

7. Condenser Chlorination

The inspector observed the licensee's activities related to the removal of algae from the secondary side of the condenser. Grab samples were being taken at the discharge embayment and analyzed for available chlorine residual by treating the samples with Ortho-Tolidine Solution (R-420) prior to measurement with a Hellige Colorimeter. The inspector reviewed OP 1605 (Part II) - Determination of Chlorine (Comparator Method) to assure that the analysis was being conducted according to written, approved procedures.

The inspector had no further comments on this item.

8. Semiannual Reports

The inspector reviewed the semiannual report covering the last half of 1974, along with facility records relating to events, measurements, maintenance and plant operating history to verify that:

(continued)

- a. Information requested to be reported by the Technical Specifications has been reported.
- b. The report accurately reflects information documented in facility records.

9. Maintenance

The inspector reviewed records of plant maintenance activities to verify that:

- a. The limiting condition for operation was met while components or systems were removed from service for maintenance.
- b. Maintenance activities which require administrative approval were obtained prior to initiating the work.
- c. Maintenance activities were accomplished using approved procedures.
- d. Maintenance activities were inspected in accordance with the provisions in the licensee's requirements.
- e. Quality control records are available for maintenance activities.
- f. Maintenance activities were accomplished by qualified personnel.

10. Abnormal Occurrences

The inspector reviewed AO 75/03 to verify that:

- a. The cause was identified and the details were clearly reported to facility management and NRC.