

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

IE Inspection Report No. 50-313/76-07

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: June 16-18, 1976

Dates of Previous Inspection: April 20-22, 1976

Principal Insr

Daniel Gene Anderson
D. G. Anderson, Reactor Inspector

6/30/76
Date

Accompanying Inspector:

R. S. Madsen
R. Smith, Reactor Inspector

6/30/76
Date

Reviewed By:

G. L. Madsen
G. L. Madsen, Chief, Reactor Operation and
Nuclear Support Branch

6/30/76
Date

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

1. Surveillance tests conducted during this outage.
2. Films of clean up of reactor vessel internals.
3. Fire stop remodifications.
4. Maintenance to hydraulic shock suppressors.
5. Recent Licensee Event Reports.
6. Trouble reports noted during inspection 50/313-76/06.

B. Exit Meeting

At the conclusion of the inspection on June 18, 1976, a management exit meeting was conducted with Mr. J. W. Anderson, Jr., Plant Superintendent and members of his staff. Items reviewed at this meeting are as follows:

1. The item of noncompliance noted as a result of this inspection. (Details, paragraph 7.)
2. The concern of the inspectors related to fire stop remodifications and fire control procedures. (Details, paragraph 5.)
3. Leaking hydraulic shock suppressors. (Details, paragraph 6.)
4. Observations of the inspector related to viewing of the films of the reactor vessel cleanup. (Details, paragraph 3.)

DETAILS

1. Persons Contacted

Arkansas Power and Light Company (AP&L)

J. W. Anderson, Jr., Plant Superintendent
G. H. Miller, Assistant Plant Supervisor
B. A. Terwilliger, Supervisor of Plant Operations
T. Martin, Maintenance Supervisor
R. G. Carroll, Health Physics Supervisor
L. W. Humphrey, Quality Assurance Engineer
M. Bishop, Records Supervisor
L. Alexander, Quality Control Engineer
J. Robertson, Assistant Supervisor of Plant Operations
P. Jones, Instrument and Control Supervisor
R. T. Elder, Assistant Instrument Supervisor
T. Templeton, Shift Supervisor
L. Castleman, Senior Water Control Operator

2. Plant Status

The plant was at hot shutdown with preparations being made for startup during the period encompassed by the inspection. The inspectors were notified during the last day of the inspection that a stator on a CRDM had failed and plans were being made to cool down to replace this item.

3. Reactor Vessel Video Scans

The inspector reviewed the following films during this inspection:

B&W	#13	Bottom of reactor Vessel (Prior to cleanup).
B&W	#37	Thermal Shield Restraint Blocks.
AP&L	#4	Reactor Internals (After cleanup).

During the viewing of the films of the reactor vessel, the inspector noted several dents on the surface of the incore instrument nozzles. No determination could be made as to whether or not these were caused by movement of the severed sections of the specimen holder tubes or during initial fabrication of the vessel. The licensee representative indicated that noise monitoring had revealed that a six ounce piece of metal and several pieces, the size of a match head, were moving around in the lower section of the vessel during flow conditions with one pump in operation. It was later found that when the second pump was energized, that the larger piece became immobilized, and could not be detected.

The inspector had no additional comments on this item.

4. Review of Trouble Reports

The inspector reviewed the following Trouble Reports (TR):

TR 485 Lock for Crane Bridge and Fuel Bridge.
TR 471 Failed Fuel Monitor.
TR 461 Source and Intermediate Range Calibration Greater than
One Year Interval.
TR 454 Pressure/Temperature Channel Failed High
TR 397 Waste Gas Rupture Disc. (Job Order 1505.)
TR 105 Core Flood Tank Level Indicators. (Job Order 1405.)
TR 3224 Pressurizer Spray Valve. (Job Order 928.)

To assure that proper review had been documented as required by procedure #1004.02, "Initiation and processing of Trouble Tickets", the inspector noted that Section 3.4 of this procedure requires review by the QC Engineer to determine if each item is "Q" or "Non-Q" related, however, all completed Trouble Tickets are not being retained in files as required by Section 5.0 of the procedure. The licensee representative indicated that the filing system is being revamped to assure that all trouble tickets are retained for documentation as required above.

The inspector had no further questions in this area.

5. Fire Stop Inspection

Following up on the licensee's commitment to remove and replace all Silicone RTV sealant with a fire resistant sealing material, the inspectors visited areas where the Silicone RTV sealant had been noted previously. The licensee was notified that several cable penetrations above the door separating the health physics Control point and the Auxiliary Building are still coated with copious amounts of this flammable material. The inspectors also noted 8-10 cigarette butts on the floor of the Cable Spreading room. A sign on the door to the cable spreading room reads "No Smoking or Carrying of Lighted Materials Beyond This Point". The licensee also indicated that lighted cigarettes are also routinely used to test the smoke detectors throughout the facility, including those areas where smoking is prohibited. The inspectors expressed concern that this appears to be a continuing problem and will be reviewed during future inspections until resolution of discrepancies is achieved in this area.

The inspectors had no further comments on this item.

6. Plant Inspection

The licensee representative accompanied the inspectors on a tour of the Reactor Building, Auxiliary Building, and certain areas of the Balance of Plant. The inspectors entered the Reactor Building to check on the status of several hydraulic shock suppressors which had been observed and reported to have empty fluid reservoirs. The licensee indicated that new gaskets had been installed on the reservoirs and the reservoirs had been refilled with hydraulic fluid. The inspectors noted two hydraulic shock suppressors on the main steam lines in the Reactor Building which appeared to be leaking even after this maintenance had been performed. The licensee indicated that they may have to go to a completely enclosed type of reservoir which does not have gaskets in order to alleviate the problem.

The inspectors had no further questions on this item.

7. Surveillance Testing

A review of the licensee's surveillance testing was made to ascertain whether the surveillance of safety related systems or components is being conducted in accordance with the TS and approved procedures.

a. Scope of Inspection

The inspection effort included a selective review of surveillance tests. The selected test material was reviewed to verify:

- (1) That the surveillance test is conducted using a properly approved procedure.
- (2) That the test procedure included:
 - (a) Prerequisites, precautions and appropriate limitations on critical parameters.
 - (b) Designation of test and calibration instrumentation to be used.
 - (c) Appropriate acceptance criteria which will satisfy the test objective.
 - (d) Operational checks prior to returning the equipment to service.
 - (e) Special test instruments were required to be within calibration.

- (3) That the test results are in conformance with TS requirements and the acceptance criteria of the procedure.
- (4) That the test results have been reviewed by someone other than the tester or the individual directing the test.

Interviews were held with selected test performers and their qualifications were reviewed.

Performance of a Surveillance test was observed by the inspector, the test procedures reviewed are listed as follows:

- 1304.70 Reactor Building Isolation Valve Stroke test.
- 1104.02 High Pressure Injection Pump A, B, and C Rotation and test.
- 1107.01 A. C. Supply System test Supplement III, Part 2.
- 1104.04 Low Pressure Injection/Decay Heat Pump 34A Component Quarterly testing.
- 1104.33 Hydrogen Purge System test.
- 1104.34 Control Room Emergency Ventilations, Quarterly test.
- 1108.36 Diesel Generator Monthly test, Supplement I.
- 1104.36 Diesel Generator Starting Air Compressor Charging test, Supplement II.
- 1104.26 Diesel Generator Fuel Oil Transfer Pump test.
- 1136.06 Steam Driven Emergency Feed Pump test.
- 1106.06 Emergency Feed Water Valve test, Supplement III.
- 1107.01 Switch Yard D.C. Power Supply test.
- 1104.06 Spent Fuel Cooling System Functional test, Supplement I.
- 1304.35 Rod Drop test.
- 1304.37 Reactor Protective System Channel A test.

The acceptance criterion listed in tests 1104.06 Spent Fuel Cooling Functional test, Supplement I and 1104.02 High Pressure Injection Pump 36C Rotating and test Supplement 3 were changed without approval.

Technical Specification 6.7 requires that changes to procedures relating to surveillance and testing requirements of systems and components involving nuclear safety shall be reviewed by the Plant Safety Committee and approved by the Superintendent prior to implementation. Technical Specification 6.7 also requires that temporary procedures which do not change the intent of the procedure must be approved by two staff members one of which must be a shift supervisor. Temporary procedures that change the intent must be approved by the Plant Superintendent.

Contrary to these requirements the discharge pressure acceptance criteria in test 1104.02 was changed from 2650 PSIG \pm 10% to 2900 \pm 10% and in test 1104.06 the spent fuel cooling pump flow

rate was changed from 1000 gpm to 1050 gpm. The spent fuel purification flow rate was also changed from 180 gpm to 130 gpm. These procedure changes were made without evidence of approval.

This is considered to be an item of noncompliance.

8. Semiannual Report

The inspector reviewed the semiannual reports of dates January 1, 1975, to June 30, 1970 and July 1, 1975 to December 21, 1975, as related to surveillance testing.

9. Review of Licensee Event Reports

The inspectors reviewed plant records related to the following Licensee Event Reports:

Reportable occurrence	76/03	Surveillance Specimen holder tube severance.
Reportable occurrence	76/04	Set point drift on Reactor Building pressure switch.
Reportable occurrence	76/05	Empty fluid reservoirs on hydraulic shock suppressors.
Reportable occurrence	76/06	Fuel handling Area Ventilation System not in operation.
Reportable occurrence	76/09	Certain Equipment failed to respond to a simulated E. S. signal during refueling period surveillance tests.

This review was performed to verify that:

- a. The cause was identified, evaluated, and corrective action taken.
- b. The details were clearly reported to the NRC and facility management as required by the Technical Specifications.
- c. Each report was submitted for distribution and review was performed as required by the Technical Specifications.
- d. Follow-up action is in progress or completed.
- e. Limiting conditions for operation were not exceeded.

The inspectors had no additional comments on this item.

10. Administrative Change

As a result of a recent USNRC Operator Licensing examination, the licensee notified the inspector that two new Shift Supervisors had been assigned to shift duty. Effective June 11, 1976, the following licensed senior operators were assigned as Shift Supervisors:

Raymond P. Wewers
Bill T. Moon

The inspector had no further comments on this item.