

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-313/84-34

License: DPR-51

Docket: 50-313

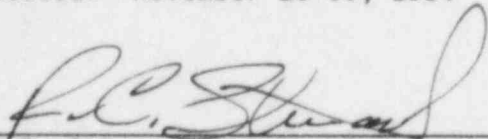
Licensee: Arkansas Power and Light  
P. O. Box 551  
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One (ANO) Unit 1

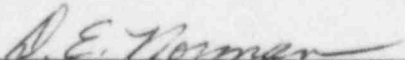
Inspection At: ANO Site, Russellville, Arkansas

Inspection Conducted: November 26-30, 1984

Inspectors:

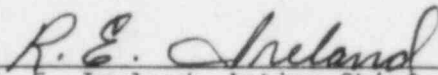
  
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R. C. Stewart, Reactor Inspector  
Reactor Safety Branch/Operations Sections

11-4-85  
Date

  
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D. E. Norman, Reactor Inspector  
Reactor Safety Branch/Operations Section

11/5/85  
Date

Approved:

  
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R. E. Ireland, Acting Chief, Operations Section

11/5/85  
Date

Inspection Summary

Inspection Conducted November 26-30, 1984 (Report 50-313/84-34)

Areas Inspected: Routine, unannounced inspection of containment type B and C leak test, in-service inspection (ISI) data, and facilities modification. The inspection involved 62 inspector-hours by two NRC inspectors.

Results: Within the three areas inspected, no violations or deviations were identified.

Details

1. Persons Contacted

- \*Chris Shively, Engineering Superintendent
- \*Larry Dugger, I&C Superintendent
- Don Payne, ISI Coordinator
- Jerry Newman, I&C Senior Technician
- \*G. D. Provencher, QA Supervisor
- \*Patty Campbell, Licensing Engineer
- \*T. H. Cogburn, Special Projects Manager
- \*E. C. Ewing, Engineering and Technical Support Manager
- \*J. M. Levine, ANO General Manager

The NRC inspectors also contacted other licensee employees, including administrative, quality assurance, clerical and maintenance personnel.

\*Denotes those attending the exit interview.

2. Containment, Type B and C Leak Rate Testing

This inspection was performed to ascertain whether the type B and C leak rate testing was in conformance with regulatory requirements and FSAR commitments. Implementing instructions for performing the test are contained in the following procedures which were reviewed by the NRC inspector:

- Procedure No. 1304.20, Revision 1, dated September 19, 1984, "Reactor Building Access and Ventilation Leak Rate Testing"
- Procedure No. 1304.23, Revision 8, Change 3, dated October 30, 1984, "Local Leak Rate Testing"

Instructions for the two personnel access penetrations and the reactor building ventilation penetrations are included in Procedure 1304.20 while Procedure 1304.23 contains instructions for the remaining type B and C tests and calculations for all type B and C tests. Each component is assigned a maximum allowable leakage rate and a job order is issued to repair or replace components when out-of-tolerance conditions are found. A Report of Abnormal Conditions (RAC) is issued if the total leakage of all components exceeds 60 percent of the allowable.

The NRC inspector reviewed implementation of the procedures by examining test data and job orders. No irregularities were identified during the inspection; however, several items remained to be tested and total leakage had not been determined. This inspection effort will be continued during a future inspection.

No violations or deviations were identified.

### 3. Reactor Nozzle Inservice Inspection

This inspection was conducted to determine if the ASME Code and Technical Specification requirements for examining the reactor vessel nozzle welds during the first inspection interval had been complied with. NRC letter dated April 18, 1983, approved the ISI program which included the following requirements in respect to the nozzles:

- Inspection in accordance with Section XI of the ASME Code, 1974 edition through summer 1975 addenda, except where specific written relief has been granted by the NRC. In respect to the time of RV nozzle inspections, the original requirement that 25 percent of required examinations be completed by the end of 40 months (1/3 interval), 75 percent of required examinations be completed by the end of 80 months (2/3 interval) and the remaining be completed by 120 months (one interval) was replaced with the following requirement:
  - 100 percent inspection of both outlet nozzles to be completed by 3-1/3 years, from the nozzle bore.
  - 100 percent inspection of all nozzles from inside the vessel with vessel internals removed, by 120 months.

The following B&W procedures were reviewed relative to the inspection:

ISI-130, Revision 18, dated October 5, 1982, "Ultrasonic Examination of Vessel Welds and Nozzle Radius Sections"

ISI-131, Revision 8, dated October 8, 1982, "Remote Ultrasonic Examination using the ARIS Device"

ISI-132, Revision 3, dated July 2, 1981, "ARIS Operating Procedure"

Additionally, Inservice Inspection Results for Arkansas Nuclear One, Unit 1, for Refueling outage Number 5, 1982-1983, were reviewed and there were no indications of flaws in the nozzles.

The following unresolved items were identified as a result of the inspection (Unresolved Item 313/8434-01)

- a. ASME Section XI requires, in respect to primary nozzle-to-vessel welds and nozzle inside radius sections, that a volumetric examination be completed of the weld and specified area adjacent to the weld. Information available was not sufficient to show that the required volume had been examined. There were also notes associated with several scans which indicated that scans were limited because of interference problems.
- b. Form NIS-1, "Owners' Data Report for Inservice Inspections", dated September 20, 1983, certified inspection results for the interval from December 19, 1974, to December 19, 1984. Only five of the eight vessel nozzles had been listed on the report.

- c. Data showed calibration sheets for several transducers; however, transducer identification numbers were not listed on data sheets for the nozzle examinations.
- d. There was no documented evidence of either B&W or AP&L QA/QC overview of the ISI process.

No violations or deviations were identified,

4. Facility Modifications

During this inspection, the NRC inspector reviewed the design change modifications being accomplished during this plant outage on the Unit 1 emergency feedwater system (EFW).

The modification is the result of the functional requirements needed to properly interface the EFW with the Nuclear Steam Supply System (NSSS) in conjunction with; NUREG-0578, Short Term Lessons Learned Report; Draft NUREG-0667, Transient Response of B&W Designed Reactors; and criteria necessary to upgrade the EFW to comply with the Standard Review Plan, Section 10.4.9, Branch Technical Position ASB10-1.

The EFW modification is being accomplished by Bechtel contract in accordance with AP&L Design Change Package #80-1083.

The NRC inspector reviewed the principle Babcock & Wilcox Design Technical Document 15-1119467-03, entitled "System Description For Emergency Feedwater System For ANO-1, in conjunction with AP&L Design Packages DCP#80-1083A, B, & F. In addition, the inspector reviewed applicable AP&L procedures including the following:

<u>Procedure Number</u>	<u>Title</u>
1032.01	Design Control
1032.02	Installation Technical Support
1000.13	Control of Station Modifications
1004.01	QC Program Implementation

The NRC inspectors did not witness or review the subcontractor work activities. However, the NRC inspector expressed a concern in the area of AP&L QA involvement in contractor surveillance during construction. Although the licensee representatives stated that QA surveillance activities were being performed, the NRC inspector was unable to find documented evidence that the surveillance activity was verifying the contractors effectiveness of quality control during construction modification. (10 CFR 50, Appendix B, Critieron VII).

There were no violations or deviations identified.

5. Exit Interview

The NRC inspectors met with licensee representatives and the NRC resident inspector at the conclusion of the inspection on November 30, 1984. The NRC inspectors summarized the scope and findings of the inspection. The licensee stated that the unresolved items and NRC inspector concerns would be reviewed.