

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/85-07
50-368/85-07

Licenses: DPR-51
NPF-6

Dockets: 50-313
50-368

Licensee: Arkansas Power & Light Company (AP&L)
P. O. Box 551
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One (ANO), Units 1 and 2

Inspection At: ANO Site, Russellville, Arkansas

Inspection Conducted: April 1-30, 1985

Inspectors:

W.D. Johnson
W. D. Johnson, Senior Resident
Reactor Inspector
(pars. 2, 3, 4, 5, 6, 7, 8, 9,
10, 12, 13)

5/13/85
Date

P.H. Harrell
P. H. Harrell, Resident Reactor
Inspector
(pars. 2, 3, 4, 5, 6, 7, 8, 9,
10, 11, 12)

5-10-85
Date

Approved:

L.E. Martin
L. E. Martin, Chief, Reactor
Project Section 2A

4/7/85
Date

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Q PDR

Inspection Summary

Inspection Conducted April 1-30, 1985 (Report 50-313/85-07)

Areas Inspected: Routine, unannounced inspection including operational safety verification, maintenance, surveillance, followup on previously identified items, followup on IE information notices, emergency preparedness exercise, and followup on Generic Letter (GL) 83-28.

The inspection involved 98 inspector-hours (including 10 backshift hours) onsite by two NRC inspectors.

Results: Within the seven areas inspected, no violations were identified.

Inspection Summary

Inspection Conducted April 1-30, 1985 (Report 50-368/85-07)

Areas Inspected: Routine, unannounced inspection including operational safety verification, maintenance, surveillance, followup on previously identified items, followup on licensee event reports (LERs), followup on IE information notices, spent fuel pool activities, emergency preparedness exercise, followup on GL 83-28, facility modifications, refueling activities, and pipe support and restraint systems.

The inspection involved 145 inspector-hours (including 21 backshift hours) onsite by two NRC inspectors.

Results: Within the 12 areas inspected, two violations were identified (failure to follow requirements for a radiologically posted area, paragraph 8, and failure to install a fire door (FD) in accordance with an approved plant design change, paragraph 5).

DETAILS

1. Persons Contacted

- J. Levine, ANO General Manager
- *B. Baker, Operations Manager
- B. Bata, Quality Assurance (QA) Engineer
- R. Blankenship, Nuclear Engineer
- M. Bolanis, Health Physics Superintendent
- L. Bramblett, Plant Performance Engineer
- D. Brown, Electrical Engineer
- M. Browning, Maintenance Engineer
- *P. Campbell, Licensing Engineer
- *T. Cogburn, Special Projects Manager
- M. Cooper, QA Inspector
- B. Converse, Plant Performance Supervisor
- D. Crabtree, Mechanical Engineer
- L. Dugger, Acting I&C Maintenance Superintendent
- *E. Ewing, Engineering & Technical Support Manager
- G. Fiser, Radiochemistry Supervisor
- M. Frala, Assistant Radiochemistry Supervisor
- B. Garrison, Operations Technical Support
- L. Gulick, Unit 2 Operations Superintendent
- D. Hamblen, Quality Control (QC) Engineer
- R. Hargrove, Unit 2 Lead Trainer
- H. Hollis, Security Coordinator
- *L. Humphrey, Administrative Manager
- *H. Jones, Field Construction Manager
- P. Kearney, Mechanical Engineer
- J. Lamb, Safety and Fire Protection Coordinator
- *D. Lomax, Licensing Supervisor
- *J. Marshall, ANO Project Manager
- B. McCord, QC Inspector
- W. McKelvy, Assistant Radiochemistry Supervisor
- J. McWilliams, Unit 1 Operations Superintendent
- *J. Montgomery, Human Resources Supervisor
- R. Moore, Planning and Scheduling Coordinator
- J. Orlicek, Field Engineering Supervisor
- *M. Pendergrass, Acting Engineering & Technical Support Manager
- V. Pettus, Mechanical Maintenance Superintendent
- R. Pool, Assistant Radiochemistry Supervisor
- *D. Provencher, Quality Engineering Supervisor
- J. Ray, QC Engineer
- P. Rogers, Plant Licensing Engineer
- *L. Sanders, Maintenance Manager
- *L. Schempp, Nuclear QC Manager

- *C. Shively, Plant Engineering Superintendent
- *G. Storey, Safety and Fire Protection Coordinator
- S. Strasner, QC Supervisor
- M. Stroud, Electrical Engineer
- C. Taylor, Operations Technical Support
- L. Taylor, Operations Technical Engineer
- B. Terwilliger, Operations Assessment Supervisor
- R. Tucker, Electrical Maintenance Superintendent
- D. Wagner, Health Physics Supervisor
- *R. Wewers, Work Control Center Manager

*Present at exit interview.

The inspectors also contacted other plant personnel, including operators, technicians, and administrative personnel.

2. Followup on Previously Identified Items (Units 1 and 2)

(Open) Open Item 313/8017-03: Reactor building purge alarm setpoint.

The NRC inspector observed a portion of the Unit 1 reactor building purge conducted on April 11, 1985, under permit IGR 85-20. Although the Technical Specification gaseous release rate limits were not approached or exceeded during this purge, observations during the purge and subsequent discussions with operations and radiochemistry personnel indicate that improvements are needed in the procedures used for conducting a reactor building purge. Problem areas identified included:

- . The alarm setpoint calculated for RE-7400 was about 46 times as high as the highest actual count rate observed during the purge.
- . The special particulate iodine noble gas (SPING) monitor alarm setpoint was about a factor of nine lower than the calculated concentration in the reactor building prior to the purge.
- . The SPING monitor alarm setpoint was written on the reactor building purge gaseous release permit in the space provided for the RE-7400 alarm setpoint.
- . Sample flow to RE-7400 was not lined up initially, as indicated by this instrument's lack of response during the first segment of the purge.

- . The purge was secured during the first segment due to confusion and concern over the meaning of the SPING monitor alarm which was activated.
- . Dual calculations performed as required by concurrently applicable old and new Technical Specifications contributed an additional confusion factor.
- . The post release permit update was recalculated following identification of a computer input error in which reactor building pressure was entered in units of psia into a program designed to accept an input in units of psig.
- . The computer generated prerelease permit did not flag the fact that the SPING monitor setpoint was much lower than actual concentration.

In discussions with the NRC inspector, operations and radiochemistry personnel stated that they would review and revise the procedures associated with reactor building purge releases. This item remains open.

- (Closed) Open Item 368/8206-01: Reactor coolant pump (RCP) seal sensing line supports.

The licensee has inspected the RCP seal pressure sensing lines and supports and implemented DCP 83-2011 to reduce the problem of leaks in these lines. This DCP removed unnecessary lengths of piping, added supports where necessary, and replaced some piping with tubing. During outage 2R4, the licensee inspected the seal injection and controlled bleedoff lines and developed a design change to upgrade the supports on these lines. DCP 84-2084 was partially implemented during the outage. These inspections, evaluations, and design changes were intended to reduce or eliminate leaks such as those reported in LERs 82-017/03L-0, 83-023/03L-0, and 83-039/03L-0.

- (Closed) Open Item 368/8212-06: Smoke and heat detectors in containment.

The NRC inspector toured the Unit 2 containment and verified that heat and smoke collectors were installed over the heat and smoke detectors in the containment, as required by the Unit 2 Fire Protection Safety Evaluation Report.

- (Closed) Open Item 313/8304-03; 368/8304-03: Control of maintenance to ensure interferences are reinstalled upon completion of work activities.

The licensee has established a program in Procedures 1025.03, "Conduct of Maintenance" and 1000.24, "Control of Maintenance," to ensure that interferences are reinstalled upon completion of work activities. The program requires that a new job order (JO) be written for interferences that require removal if not within the scope of the original JO.

(Closed) Unresolved Item 313/8304-04; 368/8304-04: Utilization of quality control (QC).

During followup of this item, the NRC inspector reviewed Administrative Procedures 1000.23, "Quality Control Program," and 1004.01, "Quality Control Program Implementation." In addition, discussions were held with personnel at various levels in the licensee's organization. Since this unresolved item was identified, several changes and improvements have been made to increase the efficiency and effectiveness of QC personnel at the plant site. These changes include:

- . The addition of QC engineer positions and a QC engineer supervisor;
- . Assignment of a QC engineer to the Work Control Center;
- . Assignment of a QC inspector to the receipt inspection function;
- . Utilization of QC engineers for review of JOs and DCPs and designation of QC hold points;
- . Utilization of additional contract QC inspectors during outage periods to enlarge the scope of activities which are inspected;
- . Establishment of the construction management QC group for inspection of construction and installation activities and oversight over the resident construction contractor QC organization;
- . More frequent use of QC hold points in JOs and procedures; and
- . Improved availability and visibility of QC inspectors in the plant.

(Closed) Open Item 313/8331-01; 368/8331-01: Completion of a fire protection/prevention program consolidation and clarification of applicable license conditions.

The licensee has issued a set of manuals that consolidate the information related to fire protection for Units 1 and 2. These Fire Protection Program Manuals are issued and maintained by the AP&L licensing group. The manuals will be updated, as necessary, to provide the latest information for the fire protection program.

- (Closed) Open Item 313/8331-02; 358/8331-02: Indiscriminate fire suppression system activation.

The licensee has revised Procedure 1903.22 to delete the statement that any plant personnel may activate sprinkler or deluge systems in the event of a fire, prior to the arrival of the fire brigade. Procedure 1903.22 now states that system activation will only be performed per the direction of the fire brigade captain.

- (Closed) Unresolved Item 313/8331-03; 368/8331-03: Fire brigade participation tracking system.

The NRC inspector reviewed the records maintained for participation in fire brigade training. The records maintained by the licensee include individual participation in fire brigade drills, practice sessions, and classroom instruction. The NRC inspector also reviewed the quarterly training department memos that list individuals qualified as fire brigade members.

- (Closed) Violation 313/8429-04: Procedure change conflicting with Technical Specification requirements.

The licensee's corrective action in response to this violation included procedure revision to eliminate the conflict with Technical Specifications and placing administrative restrictions on changing procedures without going through the revision process.

- (Closed) Violation 368/8431-01: Control of combustibles.

The NRC inspector reviewed the corrective actions taken with respect to this violation. The licensee's corrective actions included the immediate posting of a fire watch in the affected area, improved documentation of periodic fire/safety inspections, and presentation of a training program for those individuals primarily responsible for housekeeping. In addition, discussions are presented during general employee training and subsequent yearly retraining in the areas of control of combustibles, ignition sources, and fire barriers.

3. Licensee Event Report (LER) Followup (Unit 2)

Through direct observation, discussions with licensee personnel, and review of records, the following Unit 2 event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence has been accomplished in accordance with Technical Specifications.

82-017/03L-0	RCP seal pressure sensing line leak
83-023/03L-0	RCP seal pressure sensing line leak
83-039/03L-0	RCP seal pressure sensing line leak
84-004-00	Reactor trip on low steam generator level
84-008-00	Reactor trip on low steam generator level
84-011-00	Reactor trip on high steam generator level
84-014-00	Reactor trip on high steam generator level
84-020-00	Reactor trip on high steam generator level
84-021-00	Reactor trip on high steam generator level
84-028-00	Reactor trip on low steam generator level

The three LERs concerning leaks in RCP seal pressure sensing lines are discussed in paragraph 2 of this report in conjunction with Open Item 368/8206-01.

LERs 84-004-00, 84-008-00, and 84-021-00 relate to high and low steam generator (S/G) level actuated reactor trips during low feedwater flow operations. To minimize the number of trips due to this cause, the licensee is installing low flow range indication during the current outage (2R4). This indication is provided to assist the operator in controlling S/G levels during low flow operations. LERs 84-011-00, 84-014-00, 84-020-00, and 84-028-00 relate to reactor trips due to high or low S/G levels due to equipment malfunction or procedural inadequacies. In each case, the equipment was repaired and/or modified or procedure changes were issued to prevent recurrence. To minimize the number of reactor trips due to S/G levels, the licensee proposed a Technical Specification change to reduce the low S/G level trip setpoint from 46-percent to 23-percent. This request was approved by the NRC in Amendment 65 to the Unit 2 Technical Specifications on April 30, 1985.

No violations or deviations were identified.

4. Followup on IE Information Notices (Units 1 and 2)

The NRC inspector reviewed the licensee actions with respect to IE information notices issued during 1984. The review included verification that all notices issued during 1984 had been received by the licensee, were distributed to appropriate personnel for an applicability review, and

that appropriate corrective actions had been taken or were scheduled to be taken.

The licensee has received and reviewed all 1984 information notices. The NRC inspector reviewed the corrective actions taken by the licensee, and it appears that the corrective actions were appropriate. The NRC inspector also reviewed a sampling of the implementation of the corrective actions to verify the action taken was in accordance with the results of the documented review.

IE Information Notice 84-06, "Steam Binding of Auxiliary Feedwater Pumps," was issued on January 25, 1984. The NRC inspector reviewed the licensee's response to this issue in more detail in response to a request from the NRC Office of Inspection and Enforcement. The licensee had reviewed this issue and performed appropriate corrective action as outlined below:

- Emergency feedwater (EFW) piping is monitored twice per shift by touch on Unit 1 and once per shift by pyrometer on Unit 2 to detect back leakage as indicated by a piping temperature increase.

- The Unit 1 EFW operating procedure was revised to check for check valve back leakage prior to the monthly test of each pump.

- The Unit 2 EFW operating procedure was revised to ensure seating of the check valves by cycling the stop valves after stopping the pumps during the monthly tests.

- The EFW operating procedures for both units were revised to provide guidance on detecting and correcting EFW pump steam binding.

No violations or deviations were identified.

5. Operational Safety Verification (Units 1 and 2)

The NRC inspectors observed control room operations, reviewed applicable logs, and conducted discussions with control room operators. The inspectors verified the operability of selected emergency systems, reviewed tagout records, and verified proper return-to-service of affected components. Tours of accessible areas of the units were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibration. In addition, the inspectors ensured that maintenance requests had been initiated for equipment in need of maintenance. The inspectors, by observation and direct interview, verified that the physical security plan was being implemented in accordance with the station security plan.

During a tour of the Unit 1 auxiliary building, the NRC inspector noted that NRC-required FD 19 was not shut as it should be. FD 19 is located between the EFW pump and south piping penetration rooms. The NRC

inspector noted that the door was being held open by ventilation air flow. The door is designed not to latch shut because the door also serves as a vent path in the event of a high energy line break (HELB) in the south piping penetration room. The door is normally held shut by an automatic door closer. Flame and smoke detectors on either side of the fire barrier were operational as required by Technical Specifications. This item is unresolved pending a licensee evaluation of how to maintain the door in the shut position so the effectiveness of FD 19 to contain a fire within an affected location will not be decreased. (313/8507-01)

During a tour of the Unit 2 auxiliary building, the NRC inspector noted that FD 210 was being held shut by a latch. FD 210 should not be held shut because it provides a vent path for an HELB in the lower south piping penetration room. The NRC inspector reviewed DCP 83-D-2030 and found that the design change required a door be installed that met the requirements of 10 CFR Part 50, Appendix R and for an HELB in the penetration room. In order to meet both requirements, DCP 83-D-2030 provided instructions for FD 210 to be installed with a door closer to ensure the door remained shut, but without a latching mechanism so the door would open in the event of an HELB. The DCP and associated JO were signed off as completed even though FD 210 was not installed in accordance with the DCP requirements. This is an apparent violation. (368/8507-01)

In addition to the required response for the above violation, the licensee is requested to include a written evaluation of the effect of the latched door on the HELB analysis for the lower south piping penetration room. A review of this item will be included in the NRC inspector's followup inspection of the violation.

The NRC inspectors observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. The NRC inspectors walked down the accessible portions of the Unit 1 high pressure injection system. The walkdown was performed using Procedure 1104.02 and Drawing M-231. During the walkdown, minor discrepancies of an editorial nature were noted. The discrepancies were identified to licensee personnel.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under Technical Specifications, 10 CFR, and administrative procedures.

6. Monthly Surveillance Observation (Units 1 and 2)

The NRC inspectors observed the Technical Specification required surveillance testing on the Unit 2 emergency diesel generator (Procedure 2104.36, Supplement II) and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal

and restoration of the affected components were accomplished, that test results conformed with Technical Specifications and procedure requirements, that test results were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspectors also witnessed portions of the following test activities:

- . Unit 2 class 1E battery charger (2D32) load test (Procedure 2403.53)
- . Unit 1 low pressure injection pump monthly test (Procedure 1104.04, Supplement I)
- . Unit 2 visual inspection of mechanical snubbers (Procedure 1406.36)
- . Unit 2 functional testing of mechanical snubbers (Procedure 1406.40)
- . Unit 2 engineered safeguards features relay testing (JO 71748)

No violations or deviations were identified.

7. Monthly Maintenance Observation (Units 1 and 2)

Station maintenance activities of safety-related systems and components listed below were observed to ascertain that they were conducted in accordance with approved procedures, Regulatory Guides, and industry codes or standards; and in conformance with Technical Specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; QC records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to ensure that priority is assigned to safety-related equipment maintenance which may affect system performance.

The following maintenance activities were observed:

- . Unit 2 control element assembly extension shaft removal (Procedure 2401.17)

- . Unit 2 S/G tubesheet cleaning (Procedure 2402.98)
- . Replacement of insulation on motor leads for the high pressure injection pump (JO 84217)
- . Removal and replacement of Unit 2 mechanical snubbers (JO 79534)
- . Tightening of a loose nut on service water support for Unit 2 containment cooling unit (JO 73025)
- . Replacement of the mechanical seal on Unit 2 low pressure safety injection pump (JO 76038)
- . Cleaning of Unit 2 RCP oil drain lines (JO 81998)

No violations or deviations were identified.

8. Spent Fuel Pool Activities (Unit 2)

During this refueling outage (2R4), the licensee offloaded all fuel assemblies from the core into the spent fuel pool. This was done to perform shoulder-gap measurements on selected fuel assemblies, remove control element assemblies (CEA) from spent fuel assemblies into new fuel assemblies, and replace spent fuel assemblies with new fuel assemblies.

The NRC inspectors observed spent fuel pool activities to verify that operations were being conducted in accordance with Procedures 2409.43, "CEA Movement Utilizing CE Equipment"; 2503.01, "Refueling Shuffle"; and 2503.03, "Operation of Fuel Handling Equipment." No problems were noted with the mechanics of handling fuel assemblies in the spent fuel pool.

During observation of operation of the spent fuel pool bridge, the NRC inspectors noted that the HP area entrance requirements for portions of the bridge stated that beta protection was required. However, an individual operating the CEA handling tool within the posted area was not using the HP-required beta protection (i.e., glasses or goggles). This is an apparent procedural violation involving failure to comply with the posted area entrance requirements. (368/8507-02)

9. Emergency Preparedness Exercise Observation (Units 1 and 2)

The NRC inspectors observed the licensee's annual emergency preparedness exercise held on April 24-25, 1985. The inspectors were located in the Unit 2 control room and in the technical support center where they performed observation and participation activities. A detailed discussion of the NRC findings during the exercise is provided in NRC Inspection Report 50-313/85-10; 50-368/85-10.

10. Facility Modifications (Unit 2)

The NRC inspectors reviewed two design changes performed on Unit 2 systems during the current outage (2R4). The DCPs reviewed were DCP 83-2006, "Service Water Pump Disconnect Switches and Cable Reroute," and DCP 84-2018, "Service Water Valve Replacement." The following items were verified for these DCPs:

- . The changes were reviewed and approved by the licensee in accordance with 10 CFR Part 50.59 and with licensee procedures.
- . The implementation of the DCPs was controlled by established procedures.
- . Following implementation, the modified systems were tested in accordance with approved test procedures.
- . The necessary changes to operating procedures were being approved and were scheduled for implementation prior to plant heatup.
- . Operator training on the DCPs was conducted.
- . Changes to piping and instrumentation drawings were scheduled to be issued prior to plant heatup.
- . Ignition source permits were issued when required.
- . For DCP 83-2006, the licensee had reviewed and approved the seismic qualification report for the new disconnect switch cabinets.
- . Field change notices to the DCPs were used to document and control design revisions found to be needed after DCP implementation was started.
- . Checks were performed at various times during installation to verify that the change was being performed in accordance with the DCP.

No violations or deviations were identified.

11. Near-Term Inspection Followup to GL 83-28 (Units 1 and 2)

GL 83-28, "Required Actions Based on Generic Implication of Salem ATWS Events," was issued by the NRC on July 8, 1983. GL 83-28 required each licensee to address the near- and long-term programs associated with post-trip review, equipment classification, vendor interface, and maintenance programs for safety-related components within safety-related systems. This inspection addressed the near-term programs currently in effect at ANO. The long-term programs, currently being reviewed by the NRC Office

of Nuclear Reactor Regulation, will be examined during a future inspection after issuance of safety evaluation reports. Each of the four areas reviewed during this near-term inspection are discussed below.

- a. The area of posttrip review was discussed in NRC Inspection Report 50-313/84-18; 50-368/84-18.
- b. The purpose of equipment classification area of this inspection was to verify that the licensee has established a program for use in identification of components as safety-related; that the program is adequately described in appropriate procedures, drawings, and instructions; and that the program is being implemented in daily plant activities.

The NRC inspector performed the following activities for this area of the inspection.

- . Reviewed the appropriate procedures to verify that an equipment classification program has been established that conforms to the licensee's response to GL 83-28, codes, standards, the AP&L QA Manual-Operations, and the safety analysis reports.
 - . Reviewed procurement, maintenance, and modification activities to verify these activities were being performed in accordance with the controlling procedures established for program implementation.
 - . Verified that audit, training, and nonconformance programs were established and implemented for activities associated with equipment classification.
- c. The purpose of the vendor interface area of this inspection was to verify that the licensee has established and is implementing a program to ensure vendor information is complete, current, and controlled, and that the vendor information has been included in the licensee's test and maintenance procedures.

The NRC inspector performed the following activities for this area of the inspection.

- . Reviewed vendor technical manuals for selected plant components and verified the test guidance and maintenance information provided had been incorporated into the appropriate procedures.
- . Reviewed the technical manuals for Units 1 and 2 reactor trip breakers (RTBs) and appropriate procedures to verify information contained in the procedures was accurate and detailed enough to

provide adequate instructions for the technicians performing RTB maintenance and testing.

Verified that RTB modifications recommended by the vendor had been completed.

Verified that the licensee is trending online and maintenance data for the RTBs.

- d. The purpose of the maintenance area of this inspection was to verify that the licensee is implementing a postmaintenance testing program for safety-related components to ensure operability after maintenance activities have been completed.

The NRC inspector performed the following activities related to this area of the inspection.

Verified that a program has been established that requires post-maintenance testing and that the program establishes the responsibilities for review and approval of maintenance, for designation as to whether or not it is a safety-related maintenance activity, and for the performance of the maintenance activity.

Verified through the review of maintenance documentation on selected plant components that the program is being properly implemented and that postmaintenance testing is performed prior to returning the component to service.

Observed plant maintenance activities to verify that maintenance is performed in accordance with procedures and instructions.

Verified procedural requirements exist that test the silicon-controlled rectifiers for the reactor trip system.

Verified that procedures require testing of the manual and automatic trip functions of the RTBs.

No violations or deviations were identified.

12. Refueling Activities (Unit 2)

The NRC inspectors reviewed procedures and observed licensee activities to determine whether refueling activities were conducted as required by the Technical Specifications and in accordance with approved procedures. The following items were included in this inspection:

- . The Technical Specification prerequisites were met prior to fuel handling.
- . Periodic equipment testing and boron sampling required by the Technical Specifications were conducted.
- . Fuel handling operations in the reactor building and in the spent fuel pool were being conducted in accordance with approved procedures.
- . Containment integrity was maintained as required.
- . Housekeeping practices in the refueling cavity and in the spent fuel area were appropriate. The discrepancies involving loose items on the refueling bridge identified during the recent Unit 1 refueling were not repeated during this refueling.
- . Technical Specification and procedural requirements regarding staffing during refueling operations were satisfied.

No violations or deviations were identified.

13. Pipe Support and Restraint Systems (Unit 2)

The NRC inspector reviewed the licensee's procedures and activities relating to the inspection and testing of mechanical snubbers in accordance with Technical Specification 3/4.7.8. Procedures reviewed included:

<u>Number</u>	<u>Revision</u>	<u>Title</u>
1406.36	1	Mechanical Snubber Visual Inspection per VT-3
1406.37	1	Mechanical Snubber Visual Inspection per VT-4
1406.38	1	Mechanical Snubber Removal and Reinstallation
1406.40	1	Mechanical Snubber Testing - Pacific Scientific (PSA) Snubbers
1406.41	1	Disassembly, Cleaning, Inspection, and Reassembly of PSA Mechanical Snubbers

The licensee contracted with Wyle Laboratories for performance of mechanical snubber inspection and testing during outage 2R4. The NRC inspector made observations of these activities and noted the following items:

- . The AP&L QA department had reviewed the calibration documentation and verified that the testing machines and associated instruments were calibrated.
- . AP&L QA had also reviewed the qualification status of testing and inspection personnel.
- . QC for testing and inspection activities was provided by Wyle under the Wyle QA Manual.
- . The snubber inspections observed were performed in accordance with approved procedures by experienced personnel.
- . Deficiencies identified during inspections were documented and tracked to resolution.
- . Functional test acceptance criteria were in conformance with Technical Specification 4.7.8.e.
- . A mechanism was in place to ensure the performance of a failure analysis and an engineering evaluation of the effect on systems and components for each snubber which failed to meet the functional test acceptance criteria.
- . Due to the number of failures identified, the licensee elected to perform a functional test on each mechanical snubber. At the end of this inspection period, the licensee's failure analyses and component/system operability engineering evaluations were not yet complete. The NRC inspector will review the results of these analyses and evaluations during the next inspection period.
- . Preservice operability testing and preservice inspections were performed on repaired, replacement, and new snubbers as required by Technical Specification 4.7.8.g.
- . A calibration check was performed on each of the two snubber functional testing machines daily.
- . Test data was recorded for review, evaluation, and retention.

No violations or deviations were identified.

14. Unresolved Item

An unresolved item is one about which more information is required to determine whether the item is acceptable or is a violation. One unresolved item is discussed in this report as indicated below:

Paragraph

Subject

5

FD 19 does not stay shut

15. Exit Interview

The NRC inspectors met with Mr. T. Cogburn and other members of the AP&L staff at the end of this inspection. At this meeting, the inspectors summarized the scope of the inspection and the findings.