

APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report Nos. 50-313/92-20; 50-368/92-20

Operating License Nos. DPR-51; NPF-6

Licensee: Entergy Operations, Inc.
Route 3, Box 137G
Russellville, Arkansas 72801

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

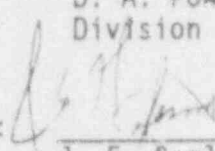
Inspection at: ANO, Russellville, Arkansas

Inspection Conducted: June 8-12, 1992

Inspectors: H. F. Bundy, Reactor Inspector, Test Programs Section
Division of Reactor Safety

M. E. Murphy, Reactor Inspector, Test Programs Section
Division of Reactor Safety

D. A. Powers, Senior Reactor Inspector, Test Programs Section
Division of Reactor Safety

Approved: 
J. E. Gagliardo, Chief, Test Programs Section
Division of Reactor Safety

7/23/92
Date

Inspection Summary:

Inspection Conducted June 8-12, 1992 (Report 50-313/92-20; 50-368/92-20)

Areas Inspected: A regional initiative, announced inspection of system entry retest (SERT) in the areas of modifications, temporary modifications, and maintenance activities. Also included was the followup of previously identified inspection findings.

Results: The licensee had a good program for identifying retest requirements and for the planning, developing, and performance of retest procedures. Retest requirements were satisfactorily addressed in the areas of design modifications, temporary modifications, and maintenance. The programmatic requirements for an operations impact statement in job orders and for an independent review of post-maintenance tests for safety-related job orders were considered strengths in the program.

A violation was identified (paragraph 3.3) in the work performance of maintenance job orders involving the failure to follow approved work instructions and administrative procedures. Other weaknesses were identified including:

- o The finding of a step for testing a check valve marked "N/A" with no apparent followup;
- o Impact statements for Unit 2 job orders found to not be consistent with the procedure definition;
- o The function of the change review board was found to be inconsistent with the administrative procedure definition; and
- o The method used to track open modifications did not include all open modifications.

The following previously identified inspection findings were dispositioned as indicated:

- o Inspection Followup Item 313/9045-03 (Closed)
- o Inspection Followup Item 313/9045-04 (Closed)
- o Inspection Followup item 368/9113-01 (Closed)

DETAILS

1. Persons Contacted

Entergy Operations, Inc.

- *G. Ashley, Licensing Specialist
- R. Beard, Unit 2 Maintenance
- J. Benham, Supervisor, Planning and Scheduling, Unit 2
- *N. Carns, Vice President, Operations
- *B. Day, Manager, System Engineering, Unit 1
- *R. Douet, Manager, Maintenance, Unit 1
- *B. Eaton, Director, Design Engineering
- *R. Fenech, Plant Manager, Unit 2
- *J. Fisicaro, Director, Licensing
- *B. Haylock, Supervisor, Maintenance Planning, Unit 1
- R. Howerton, Manager, Engineering Support
- *L. Humphrey, Director, Quality
- B. McCord, Outage, Unit 1
- R. McCormick, Quality Assurance Specialist
- *S. McGregor, Technical Specialist, System Engineering
- *J. McWilliams, Manager, Modifications
- *T. Mitchell, Balance-of-Plant Supervisor, System Engineering, Unit 2
- *T. Mosby, Outage Planning and Scheduling, Unit 2
- K. Mulling, Design Engineer
- *D. Phillips, Unit 1, General Supervision
- G. Provencher, Manager, Quality Assurance
- E. Rogers, Superintendent, Maintenance Engineering
- *V. Veglia, Supervisor, Startup Engineering
- D. Wagner, Supervisor, Quality Assurance
- C. Warren, Maintenance Manager, Unit 2

NRC Personnel

- *S. Campbell, Resident Inspector, ANO
- *J. Gagliardo, Chief, Test Programs Section
- *L. Smith, Senior Resident Inspector, ANO

The inspectors also contacted other licensee personnel during the inspection.

*Indicates presence at the exit meeting on June 12, 1992.

2. LICENSEE ACTIONS ON PREVIOUS INSPECTION FINDINGS (92701)

2.1 (CLOSED) Inspection Followup Item (36C'9113-01): "Common Variable Leg Sensing Line for all Three Reactor Coolant System Level Instruments"

The licensee had previously committed to forward a letter to the NRC, which would discuss further compensatory actions to be taken to increase the reliability of the level instruments. This letter, 2CAN049110, dated

April 26, 1991, was reviewed by the inspector. The licensee addressed the common variable instrument tap for the RCS shutdown-level measurement system by requiring that Procedure 1015.003B, "Unit Two Operations Logs " be revised. Revision 33 of this procedure added a step to ensure that any potential instrument-line blockage will be identified by periodically verifying flow through the instrument line by draining the variable legs. Other administrative measures included the performance of required walkdowns of the Tygon tubing for kinks and the periodic draining of the instrument-line reference legs for condensation removal. These actions appeared appropriate for improving the reliability of the level instruments.

2.2 (CLOSED) Inspection Followup Item (313/9045-03): "Lack of Procedural Controls to Effect Rapid Containment Closure During Reduced Inventory Conditions"

The licensee had previously committed to develop procedures for fast containment closure during reduced inventory conditions. Procedure 1015.002, "Decay Heat Removal and LTOP System Control," was revised to incorporate Attachment G, "Containment Closure Control," and Attachment H, "Emergency Closure of Containment Equipment Hatch and Air Locks." These changes were issued as Revision 12 to the procedure. The inspector noted during a review of this revision that pages 2 through 5 of "Attachment H" were entitled "Attachment G." A licensee representative acknowledged this error and said it would be corrected. The concern for lack of procedural controls was addressed in this revision.

2.3 (CLOSED) Inspection Followup Item (313/9045-04): "Weaknesses or Omissions in the Assumptions Used to Perform Analysis Completed Pursuant to GL [Generic Letter] 88-17"

The licensee had established action assignments to various engineering and operations groups to review and address the concerns identified in Section 2.3.4 of NRC Inspection Report 50-313/90-45. The inspector reviewed the responses to these action items and the resulting revisions to Procedures 1103.011, Revision 15, "Draining and N₂ Blanketing of the RCS"; 1015.002, Revision 13, "Decay Heat Removal and LTOP System Control"; and 1203.028, Revision 10, "Loss of Decay Heat Removal." The action items appropriately addressed the weaknesses identified and the procedure revisions provided the necessary controls in this area.

3. SYSTEM ENTRY RETEST (SERT)

3.1 SERT Inspection Objectives and Method

The overall objective of this inspection was to determine the licensee's performance in the areas of SERT identification, documentation, and performance.

To accomplish this objective, the inspection was conducted to determine if retest requirements were evaluated during design change and maintenance

planning and that the retest procedures and/or instructions met regulatory requirements, licensee commitments, and industry guides and standards. Another objective was to determine if retest requirements were considered for all system boundary violations. The inspection was also conducted to verify that the retests proved operability and assured that the design basis was satisfied for structures, systems, and components that had been modified or had been subjected to maintenance.

The inspectors reviewed the licensee's administrative procedures for modifications and maintenance. The following procedures were found to define the test program, establish responsibilities, and provide for procedure development:

- o 1025.033, Revision 2, "Control of Post-Maintenance Testing"
- o 1000.024, Revision 39, "Control of Maintenance"
- o 1025.003, Revision 38, "Conduct of Maintenance"
- o 1000.28, Revision 16, "Temporary Modification Control"
- o 1000.103, Revision 5, "Plant Modification Process"
- o 6C10.001, Revision 6, "DCP Development"
- o 6000.010, Revision 5, "Design Control Process"
- o 6030.001, Revision 10, "Installation Plan"
- o 6010.003, Revision 2, "Limited Change Package and Plant Change Development"
- o 6030.200, Revision 1, "Administration of Post-Modification Testing"

Listings of both open and closed maintenance job orders (JOs), modifications and temporary modifications for both units were assessed, and the inspectors selected 9 modifications, 34 maintenance JOs, and 14 temporary modifications for detailed review. The selected items are listed in the Attachment.

3.2 Inspection Findings Summary

The licensee had a good program for identifying retest requirements and for the planning, developing, and performance of retest procedures. Retest requirements were satisfactorily addressed in the areas of design modifications, temporary modifications, and maintenance. The requirements for an operations impact statement in the job order and an independent review of post-maintenance tests for safety-related JOs were considered strengths in the program.

There were some weaknesses identified in other programmatic areas. The most significant was the apparent violation involving the failure to follow approved work instructions and administrative procedures for a safety-related maintenance activity. A second weakness was the finding of a step for post-maintenance testing of a check valve, which had been marked "N/A" with no apparent followup action having been taken. Other minor weaknesses were identified, which included impact statements in Unit 2 maintenance JOs that were found to be inconsistent with the procedure definition of an impact statement; the function of the change review board was found to be inconsistent with the administrative procedure defining the board's activities; the method used to track open modifications did not capture all open modifications; and the response to a quality assurance audit by design engineering was not timely.

3.3 Post-Maintenance Testing (62700, 62702)

The inspectors examined the licensee's maintenance program to identify and evaluate the methods in place to control post-maintenance testing. This examination consisted of reviewing the administrative procedures and selected maintenance work orders and the interviewing of selected maintenance personnel.

The licensee's maintenance program as related to post-maintenance testing was described in and controlled by the following procedures:

- o Procedure 1025.033, Revision 2, "Control of Post-Maintenance Testing"
- o Procedure 1000.024, Revision 39, "Control of Maintenance"
- o Procedure 1025.003, Revision 38, "Conduct of Maintenance"

The inspectors observed that the administrative procedures for controlling post-maintenance testing were strong. The requirement for an operations impact statement in the JO was one specific strength of the licensee's program. Another strength was the requirement for an independent JO review of the specified post-maintenance testing for most safety-related JOs.

The inspectors reviewed a document entitled "Post-Maintenance Testing Guidelines," Revision 0, which was approved for Unit 1 on July 5, 1990, and for Unit 2 on July 9, 1990. These guidelines appeared to address most instances in which post-maintenance testing was required.

To determine the effectiveness of post-maintenance test implementation, the inspectors reviewed 15 completed JOs for Unit 1 and 19 completed JOs for Unit 2. The inspectors determined that the appropriate post-maintenance testing had been specified and performed for all JOs except Unit 1 JO 847020. This job order involved work on Discharge Check Valve RBS-15A for Pump 123A on the discharge side of the reactor coolant pump seal leakage collection tank. For this JO, the planner had specified post-maintenance testing to verify no back leakage through the check valve. This step was marked "NA" (not applicable) with the explanation that this observation could not be made. The

inspector found no evidence of followup actions taken by the licensee to resolve this issue. The inspector received feedback that this valve appeared to be functioning properly based on tank pump down data. Because there appeared to be no equipment problem and this equipment was not safety class, no further NRC action was considered. This approach to deleting post-maintenance test requirements with no followup action, defeats the intent of post-maintenance testing and warrants licensee attention to ensure that test requirements are being satisfied.

A problem involving an unauthorized change of work scope was identified for JO 865242, which was issued for replacing cables in Load Center Transformer X6. This involved safety-related equipment. A revision to Maintenance Engineering Request 01-92-0330 suggested application of "Q" heat shrink covering in lieu of replacing the cables. The craftsman interpreted the disposition as work instructions and installed the heat shrink covering without processing a JO scope change required by Plant Administrative Procedure 1000.024, Revision 39, Chapter FC-1, "Control of Maintenance." Paragraph 6.3.11 of Procedure 1000.024 states, in part, "If additional work is identified, another job request shall be written or the work scope on the original job order revised to include the additional scope." This action circumvented further involvement by the planner and quality control and quality engineering. It also circumvented a review of the post-maintenance test instructions for continuing applicability in accordance with paragraph 6.2.7 of Maintenance Administrative Procedure 1025.033, Revision 2, "Control of Post-Maintenance Testing." The existing post-maintenance testing instructions, however, appeared to be appropriate.

AS, Unit 1, Technical Specification 6.8.1 states, in part, "Written procedures shall be established, implemented, and maintained covering the activities referenced below:

- "a. The applicable procedures recommended in Appendix 'A' of Regulatory Guide 1.33, November, 1972"

Section I of Appendix A to Regulatory Guide 1.33, November 1972 states, in part, "Maintenance which can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances" The failure to process a work scope change for JO 865242 is a violation (313/9220-01; 363/9220-01) of the above requirement.

The licensee informed the inspectors that the improper use of dispositions in maintenance engineering requests in lieu of approved work instructions had been identified during a recent internal audit. Licensee management did not condone this practice and initiated a significant condition report to address the issue.

Although the use of impact statements was a strength, the inspectors found that several of the impact statements for Unit 2 JOs were not consistent with Plant Administrative Procedure 1000.024 in that they did not address the

following issues, which are recommended in Sections 4.24 and 6.6 of the procedure:

- o Limiting conditions for operations actions entered,
- o Special precautions, and
- o Other components that may be affected.

JOs 839125 and 839175 were among the JOs reviewed, which did not appear to include all of the recommended impact statements. The licensee representatives stated, at the exit meeting, that they would evaluate the instructions and the training provided to the planners for preparing impact statements and determine the reasons for the differences between Unit 1 and Unit 2 JO impact statements. The inspectors did not identify any instances of adverse safety impact resulting from the deficient impact statements.

3.4 Design Modifications (72701)

The objective of this area of the inspection was to evaluate the licensee's process by which permanent modifications to structures, systems, and components were subjected to appropriate post-modification testing to assure that modified structures, systems, and components were operable and conformed to the requisite design bases. During the review of this area, various design change packages were selected by the inspectors and assessed for conformance with the requirements for post-modification testing. The inspectors also reviewed the latest licensee quality assurance (QA) programmatic audit of the plant modification process.

3.4.1 Procedures

The licensee's plant modification process was categorized into six functional areas:

- o Project planning and control,
- o Design document control,
- o Procurement,
- o Installation, and
- o Project closeout.

The design control procedure established screening criteria to assess requested modifications and categorize them into one of three designations:

- o Design change package (DCP),
- o Limited change package (LCP), and
- o Plant change package (PC).

The licensee categorized the complex and more significant modifications into DCPs, and lesser significant modifications into PCs. The procedure allowed that the design engineering group, either of the Unit 1 and 2 system engineering groups, or the modifications group could develop the modification packages.

The procedure also described the role of a change review board (CRB), which was made up of senior management personnel. The CRB reviewed, approved, and prioritized requests from design changes and other station modifications made to the plant. The inspector noted, however, that the CRB's actual oversight appeared to exclude plant change packages for which no capital expenditures outside the operating and maintenance budget were necessary. Licensee representatives noted that the wording of the procedure was confusing in regard to what oversight the CRB was to perform.

In addition, the procedure stated that the plant safety committee (PSC) reviewed and recommended approval of select design changes and plant modifications.

Procedure 6030.20 provided guidelines for determining the necessary testing to assure that a modification would meet its functional requirements. The procedure specified various types of tests including construction level tests, component tests, and integrated or functional tests. The procedure required a pre-test briefing prior to conducting the post-modification testing. The procedure also conservatively stated that the post-modification testing process should test the modification under all configurations even for those configurations not normally expected to occur. Furthermore, the procedure specified that the post-modification testing process should test the modification "at least one step beyond the interface to equipment which hasn't been modified." The procedure also provided the user with a suggested component testing matrix that provided example testing processes for various modified components.

The licensee's established procedures provided reasonable and detailed guidance to ensure the acceptability of the modification process and, in particular, the post-modification testing activities.

3.4.2 Control and Tracking of Modification Packages

In attempting to select a sampling of modifications to review, the inspectors found that the licensee assigned modification packages to organizational groups as shown in Table 1 below. The engineering backlog reduction project was scheduled to be terminated in June 1992, and at the time of the inspection arrangements were being made for the transfer of their outstanding modification packages to the modifications group.

TABLE 1

GROUP	NUMBER OF OPEN PACKAGES
Modifications	104
Engineering Backlog Reduction Project (Design Engineering)	43
Unit 1 and 2 Systems Engineering	more than 212

The inspector requested a list of open modification packages to review the status of outstanding modifications. The licensee was not using a centralized tracking system for monitoring the status of modification packages. Instead, each organization responsible for modification packages utilized one of three separate D-Base 3 computer programs as tracking systems. As indicated in Table 1, the number of open plant modification packages was unknown. Specifically, the tracking system used by both Unit 1 and Unit 2 systems engineering groups was not programmed to produce a printout of those modification packages, which had been approved by management but were still outstanding. The program would, however, provide a listing of those modification packages approved by management and for which work had commenced (i.e., 212). The inspector queried licensee representatives as to their assurance that systems engineering modification packages had not been overlooked or lost in the database. The licensee representatives responded that they could obtain an all-inclusive listing of open modification packages by a labor intensive effort of cross-referencing JO, condition reports, licensing commitments to NRC, and individual system engineer assignments. It was the inspector's understanding that the licensee's planning personnel had previously conducted such an effort prior to a refueling outage in order to ensure that needed modifications were scheduled into the outage activities.

The inspector inquired if QA had audited the licensee's various tracking schemes for managing modifications. The QA manager thought that such an audit may have been conducted prior to 1990 for design engineering, but that they had not performed such an audit for all organizations involved in the modification process. The licensee's lack of a management tracking system for monitoring the status of outstanding modification packages could result in modification packages being overlooked and not implemented at the appropriate opportunities such as during unscheduled plant outages. This inability to readily identify outstanding modifications assigned to the system engineering groups was identified as a program weakness.

Of the 359 identifiable open modification packages, the oldest package, which had originated in 1979, involved a non-safety-related modification to the temperature instrumentation on the main feedwater system. The inspector noted that the median age of modification packages appeared to be in the mid-1980s.

3.4.3 Post-Modification Testing

Several of the licensee's completed modification packages were selected for review to determine the adequacy of any necessary post-modification testing.

The licensee developed LCP 6026 to upgrade certain in-core instrument assemblies due to the depletion of the rhodium detectors and the cracking that had occurred in the flexible extension tubes. The in-core instrument tubes also contain core exit thermocouples (CETs), which are required for providing indications of inadequate core cooling and misloaded fuel assemblies. The modification package specified post-modification testing requirements that included CET calibrations, CET pre-heatup and post-heatup functional checks, CET operational tests, and rhodium detector channel checks.

During the testing, test personnel found one CET could not be calibrated to within the designated specification. In particular, an in-core instrument designed by Babcock & Wilcox (which was a previously installed test item from Unit 1 supplies) failed its capacitance acceptance criterion. In regard to the dispositioning of this non-conforming instrument, the inspector verified that the licensee appropriately removed the affected instrument outputs from the Core Operating Limits Supervisory System (COLSS).

The implementing JO for the subject LCP adequately documented the testing results, and the scope of the post-modification testing was appropriate for the subject modification.

The other selected modification packages listed in the Attachment, also revealed appropriate post-modification testing and appropriate disposition of the test results.

3.4.4 Programmatic Quality Assurance Audit

The licensee issued its most recent programmatic QA audit of the modification process on November 16, 1990. Three individuals with engineering experience performed the audit (QAP-25-90) over a 3-month period. The 12 specific areas audited included program requirements, design change control, post-modification testing, etc. The audit included three QA surveillances as supporting information. The audit scope and depth of coverage appeared appropriate and of good quality. The audit produced three findings of non-conformances, six recommendations, and two observations. There were no deviations identified in the areas of post-modification testing activities.

The inspector noted that design engineering was late in responding to two of the audit's non-conformance findings. One finding concerned two examples of contract employees failing to follow plant modification process procedural requirements. The second finding involved miscellaneous examples of procedural non-compliance involving document control, which was characterized as lack of attention to detail.

The audit report requested design engineering's response to the outstanding findings by December 19, 1990. Subsequently, QA memoranda identified that design engineering was not able to meet its committed schedular response dates. The design engineers had asked for extension to the response deadline, and QA subsequently escalated the concern to senior management for assistance. Ultimately, actions were completed by design engineering on July 30 and August 16, 1991, which enabled QA to close out the audit findings. The Engineering Support manager explained to the inspector that the inability to meet the committed response date was attributable to the heavy work load that included relocation of Design Engineering from Little Rock to the site, a refueling outage, and a mid-cycle outage that had occurred during the first part of 1991.

The inspector was informed that the licensee's Business Plan, Item No. A02, set forth a criterion to have no more than 15 total outstanding QA findings

open greater than 6 months. The QA manager provided the inspector with copies of trend charts, which demonstrated that the licensee had made significant progress in reducing and thus dispositioning the number of outstanding QA findings that were open for greater than 6 months. In specific, the inspector noted that during the last 7 months that the licensee had significantly improved its performance, and that the QA criterion was being achieved throughout this current period.

3.5 Temporary Modifications (72701)

The inspectors reviewed the licensee's temporary modification program which was described in and administratively controlled by Procedure 1000.28, "Temporary Modification Control." However, the licensee allowed temporary modifications that were positively identified and controlled in other properly reviewed and approved procedures to be excluded from the requirements of Procedure 1000.28.

Temporary modifications could be initiated by any licensee personnel. Temporary modifications underwent a programmatic as well as a licensee compliance review to determine if other evaluations were necessary. The Technical Specifications, final (updated) safety analysis report, and other licensee-based documents were also reviewed to determine the impact the temporary modifications may have and what restrictions may apply. In addition, a 10 CFR Part 50.59 evaluation was performed when it was determined that one was required. The PSC was responsible for reviewing temporary modifications prior to installation. The PSC review included all engineering and 10 CFR Part 50.59 evaluations.

The inspector reviewed listings of open and closed temporary modifications for both units and selected 14 temporary modifications for detailed review. The temporary modification packages were found to be complete and met the requirements set forth in Procedure 1000.28. Each package had been reviewed as evidenced by the appropriate signatures. Post-installation and post-restoration testing was evaluated and imposed as applicable. Where a temporary modification was removed by a permanent modification the post-restoration testing was determined using the maintenance job order process. The temporary modifications were reviewed for adequacy, and for those tests that had already been performed. It was found that the results met the acceptance criteria set forth in the test procedures. Some minor editorial corrections were identified to licensee representatives. These errors did not affect the retests, installation, or restoration of the temporary modifications.

During the review of an open Unit 2 temporary modification (91-2-38), which provided a temporary remote oil fill system for Reactor Coolant Pump 2P32A motor upper oil reservoir, the inspector was informed that this pump had been leaking oil at a rate computed to be about 30 to 40 gallons of oil per cycle. The temporary fill system allowed limited personnel exposure during entry for refilling the reservoir. The licensee had been unable to determine where the oil was going. During the next outage, the licensee plans to commence an RCP

motor refurbishment program. The motor from RCP 2P32A will be the first one removed.

4. EXIT MEETING

The inspection scope and findings were summarized in an exit meeting on June 12, 1992, with the personnel identified in paragraph 1 of the report. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspectors during this inspection.

The final disposition of the review of previous inspection findings was deferred pending completion of additional in-office document review. This review was completed on June 19, 1992, and a licensee representative, Mr. Glen Ashley, was notified by telephone of the results of this review.

ATTACHMENT

Job Orders Reviewed

Unit 1

<u>Number</u>	<u>Description</u>
JO 829170	Repair Damaged Valve for RCP A Seal Cooling Inlet Vent
JO 862980	Replace Broken Fuse Holders for CFDM A/C Circuit Breaker
JO 850445	Replace Defective Power Supply Card for Automatic Synchronizer
JO 855064	For Relay Cubicle in BG3, Change the Control Transformer and Install Ground Wire to Conform to Drawings
JO 865242	In Load Center Transformer X6 Replace Conductors in JB for Hot Spot Indicator and Switch and Install New Terminal Lugs
JO 847020	Clean, Inspect Internals, and Reassemble Check Valves RBS-15A and 15B
JO 847452	Inspect, Repair, Replace, or Clean "A" LPI/DH Flow Element
JO 857518	Repack "D" HPI Line PP-1026 Root Valve
JO 825697	Replace Electric Brake Coils on Fuel Building Bridge Crane
JO 835933	Replace Terminal Block on DG #2 Water Heater
JO 855876	Correct Grounding for DH Cooler E35A Outlet Valve Motor
JO 836648	Repair/Replace Triax Connectors for the Loose Parts Monitor at Penetration E-6
JO 859270	Disassemble, Inspect, and Repair CV1407 (BWST Outlet Valve)
JO 813528	Replace O-Rings on RB Escape Hatch
JO 865168	Overhaul RCP 32C Seal Return Isolation Valve Operator

Unit 2

<u>Number</u>	<u>Description</u>
JO 804514	Cancelled
JO 807678	Repair or Replace Space Heaters for RCP 2P-32A
JO 810879	Replace Packing on Letdown Flow Inlet CV (2CV-4817)

- JO 811671 For Excore Channel D Investigate the Cause of Log Power Increase When Cable J2 is Flexed
- JO 814666 For EFW Turbine Mainstream Bypass Valve, Remove 2SV-0205 Actuator and Replace When Mechanical Work is Complete
- JO 817499 Inspect and Repair Valve 2SV-4670-2 (RCS High Point Vent to Containment Atmosphere)
- JO 819788 Relug Vertical Board #2C21 Instrument Power Supplies
- JO 834294 Repair Hoses, Cylinder, and Air Switch on ICI Transfer Cart
- JO 837256 Correct Wiring Problem for Transmitter 2TT-5095 - Low Pressure SI Discharge Header
- JO 838925 Rewire Refueling Machine 2H1 Hoist Motor Per PC 91-8009 and RSSI Direction
- JO 839125 Trouble Shoot Trips for Valve 2CV-5076-2 (HPSI Header #2 Isolation)
- JO 839175 Repair Handswitch 2HS-5037-1 for SIS LP Header Shutoff Valve
- JO 839669 Replace Circuit Breaker 2B-53L1 for Containment Cooling Fan 2VSF-1A-1
- JO 839729 Repair CEAC-1 Channel B
- JO 840815 Repair Breaker 2B-61H2 for Containment Sump Train B Recirculation Valve 2CV-5648-2
- JO 840396 Repair Operator on Valve 2CV-5063-2, SIS Tank 2T-2D Isolation Valve
- JO 840855 Rewire Relay MSISX3-2 per Design Drawing for Breakers 1M and 1L in MCC 2B-63
- JO 841576 Repair Temperature Transmitter 2TT-4711-2 and 2TT-4611-2 for RCS Steam Generator 2E24B2P32D Loop
- JO 863509 Inspect and Clean Cooling Coil for Pump Room Cooler 2VUC-6A Quality Assurance Program Audit QAP-25-90,

Temporary Modifications Reviewed

Unit 1

Number

Description

TM-90-1-055 Provide Temporary Plug for Valve Leak

TM-91-1-006 Investigate CV-1221 Auto Closure
TM-91-1-007 Provide Cooling Water Source for Control Room Chillers
TM-87-1-004 Connect Durtek
TM-88-1-007 Hydrazine Addition
TM-92-1-033 CRDM #48, Install Different Power Cable
TM-92-1-034 B-5 UV Relay, Replace with Shorter Band
TM-92-1-035 B-6 UV Relay, Replace with Shorter Band
TM-91-1-010 Defeat Chlorinator Low-Vacuum Alarm

Unit 2

<u>Number</u>	<u>Description</u>
TM-87-2-0010	Install Blank Flanges on Both Sides of 2PSV-4913
TM-91-2-010	Provide Temporary RCS Temperature Indication in Reduced Inventory Condition
TM-91-2-038	Provide Temporary Oil Fill for 2P32A Motor Upper Oil Reservoir
TM-92-2-008	Install Temporary Temperature Monitors/Loggers
TM-91-2-040	Provide 30 Computer Points from 2PMS to CAPS while 2PMS is OOS

Other Documents Reviewed

Quality Assurance Program Audit QAP-25-90, "Plant Modification/Design Engineering," November 16, 1990
Computer-Printed Spreadsheets, "DCP Tracking Report," May 12, 1992 and June 8, 1992
Interoffice Correspondence ANO-92-04838, "PC/LCP/DCP Open Items," June 9, 1992
Design Change Package 79-2174, Modify Main Feedwater System Temperature Logic
Limited Change Package 90-6026, In-core Instrument Assembly Design Upgrade
Limited Change Package 92-5010 Install Vortex Suppressor in Reactor Building Sump

- Design Change Package 89-2053, Diverse Emergency Feedwater Actuation System (ATWS)
- Design Change Package 89-2043, Auxiliary Feedwater Pump
- Design Change Package 90-6009, Fire Barrier Upgrade
- Limited Change Package 89-5007, Replace EDG Tachometry
- Design Change Package 92-1003, EDG Load Sequencer Timer Modification
- Limited Change Package 91-5025, Install Position Indication Switches/Lights for EDG Ventilation Dampers

Design Change Package 89-2053, Diverse Emergency Feedwater Actuation System (ATWS)

Design Change Package 89-2043, Auxiliary Feedwater Pump

Design Change Package 90-6009, Fire Barrier Upgrade

Limited Change Package 89-5007, Replace EDG Tachometry

Design Change Package 92-1003, EDG Load Sequencer Timer Modification

Limited Change Package 91-5025, Install Position Indication Switches/Lights for EDG Ventilation Dampers