

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-313/90-43
50-368/90-43

Operating Licenses: DPR-51
NPF-6

Dockets: 50-313
50-368

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

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

Inspection At: Arkansas Nuclear One, Russellville, Arkansas

Inspection Conducted: November 5-9, 1990

Inspectors: *V. G. Stetka for* 11/26/90
C. E. Johnson, Reactor Inspector, Plant Date
Systems Section, Division of Reactor Safety

P. C. Wagner 11/26/90
P. Wagner, Reactor Inspector, Plant Systems Date
Section, Division of Reactor Safety

Approved: *V. G. Stetka* 11/26/90
T. F. Stetka, Chief, Plant Systems Section Date
Division of Reactor Safety

Inspection Summary

Inspection Conducted November 5-9, 1990 (Report 50-313/90-43; 50-368/90-43)

Areas Inspected: Routine, unannounced inspection of the licensee's offsite support staff, plant modification program, and previously identified inspection findings.

Results: Within the areas inspected, no violations or deviations were identified. The inspectors found that design changes were being properly implemented and were thorough and well planned. Management attention was evident and effective in this area. The effectiveness of the offsite support staff has been enhanced by their recent relocation from Little Rock to the ANO site.

DETAILS

1. PERSONS CONTACTED

1.1 LICENSEE PERSONNEL

- G. Ashley, Licensing Specialist
- *B. Baker, Manager, Modifications
- *D. Boyd, Licensing Engineer
- B. Butzaff, QA Supervisor
- *N. Carns, Vice President, Operations
- *M. Chisum, Assistant Operations Manager, Unit 2
- *W. Craddock, General Manager, Support
- *D. Daniels, Manager, Plant Assessments
- *B. Durst, Superintendent, Modifications Engineering
- *R. Fench, Plant Manager, Unit 2
- *J. Fisicaro, Manager, Licensing
- *R. Howerton, Manager, Engineering Support
- M. Hoyt, Group Leader, Technical Manual Program
- *L. Humphrey, General Manager, Quality
- *G. Jones, General Manager, Engineering
- *T. McDonnell, Materials Technical Assistant
- J. Meeker, Modifications Engineer
- *D. Mims, Systems Manager, Unit 2
- D. Provencher, Manager, QA
- J. Remer, Supervisor, Engineering, Data Base
- B. Rowlett, Lead Mechanical Engineer
- C. Shively, Lead Mechanical Engineer
- J. Smith, Supervisor, Project Services
- A. Todd, Modifications Engineer
- C. Tyrone, Manager, Materials Engineering
- D. Wagner, Acting QA Supervisor, Surveillances
- P. Weaver, QA Specialist
- *J. Yelverton, Director, Operations
- *C. Zimmerman, Operations Manager, Unit 1

1.2 NRC PERSONNEL

- *P. Harrell, Chief, Projects Section C, Region IV (RIV)
- *R. Mullikin, Senior Resident Inspector, RIV, Fort Calhoun Station
- *L. Smith, Resident Inspector, Arkansas Nuclear One (ANO), RIV
- *T. Stetka, Chief, Plant Systems Section, RIV
- *C. Warren, Senior Resident Inspector, ANO, RIV

*Indicates those persons who attended the exit meeting conducted on November 9, 1990.

The inspectors also contacted and interviewed other licensee personnel during the course of this inspection.

2. FOLLOWUP ON PREVIOUSLY IDENTIFIED FINDINGS (92701 and 92702)

(CLOSED) Open Items (313/8632-01;368/8632-01 and 313/8836-01;368/8836-01): Motor Operated Valves (MOV) Maintenance Program.

During the previous inspections, concerns over the acceptance criteria for evaluating the effects of over-torquing the valves and the completeness of the MOV maintenance programs were documented. The NRC issued MOV maintenance guidance to all licensees on June 28, 1989, in Generic Letter (GL) 89-10, "Safety Related Motor Operated Valve Testing and Surveillance." The licensee responded to GL 89-10 by letter dated December 28, 1989.

During this inspection, the inspectors reviewed Procedure 1025.011, "MOV Maintenance Program," Revision 0, dated October 5, 1990. The inspectors observed that provisions for determining correct switch settings and for verifying the actuator capabilities were included in the procedure. The inspectors also noted that the procedure required the initiation of a Condition Report when a valve was discovered to be backseating.

Since the inspectors found the MOV maintenance procedure to be acceptable in resolving the previously identified concerns and since additional MOV program inspections will be conducted as part of the NRC followup to GL 89-10, these items are closed.

(CLOSED) Violation (313/8729-01): Failure to report a condition outside of the design basis of the plant.

Problems with higher than evaluated ambient temperatures inside the ANO Unit 1 (ANO 1) containment building were reviewed by an NRC Augmented Inspection Team (AIT) in August 1987. During that inspection, three violations were documented: the failure to report the condition; the failure to evaluate the condition; and operating the facility with unqualified equipment (acoustic monitor preamplifiers). The AIT findings led to an Enforcement Conference on December 18, 1987, and to subsequent escalated enforcement action.

By letter dated March 14, 1988, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty (EA 87-227). The NRC imposed one violation for the failure to evaluate the elevated temperature conditions. The licensee responded to EA 87-227 by letter dated April 28, 1988, and addressed all three violations that had been documented in the AIT inspection report. The NRC acknowledged the licensee's response by letter dated May 16, 1988.

The licensee had stated in their response to EA 87-227 that the failure to formally submit a report on the elevated temperature condition was caused by a difference in engineering judgement about whether or not ANO 1 had been operated outside of the design basis. Since the staff found the licensee's position to be acceptable, this item is closed.

(CLOSED) Violation (313/8729-02): Failure to evaluate the effects of high containment temperatures.

This violation was the subject of EA 87-227 as noted above. The temperature problem was discussed during two meetings with the NRC staff. The August 21, 1987, meeting was summarized in a NRC report dated August 28, 1987; the August 28, 1987, meeting was summarized in a NRC report dated September 24, 1987. The NRC evaluation and acceptance of the licensee's Justification for Continued Operation (JCO) was enclosed in a letter dated October 15, 1987. Included in Section 3.8 of the NRC evaluation was a list of thirteen commitments made by the licensee. The inspectors reviewed the status of those commitments during this inspection.

Nine of these commitments were addressed in the licensee's letter dated December 11, 1987. Another three of the thirteen commitments were related to the containment structural integrity and were discussed with the NRC in March 1988, as documented in AP&L memorandum MCS 88-0217. The last commitment, which was to conduct a performance test of the containment coolers, was addressed in the licensee's letter dated January 29, 1988. (The licensee also discussed containment temperature monitoring and further cooling system improvements in that letter.)

In addition, by letter dated October 26, 1990, the licensee provided the status of the implementation of additional containment cooling capacity.

Since the licensee has completed the required actions in response to the Notice of Violation, this item is closed.

(CLOSED) Violation (313/8729-03): Electrical equipment not qualified for operation at elevated temperatures.

During the AIT inspection discussed above, the inspectors determined that some acoustic monitor preamplifiers were not qualified for the temperatures to which they were assumed to have been exposed. During the enforcement conference in December 1987, the licensee presented information which indicated that those preamplifiers had not exceeded their qualified life at the temperatures they had experienced. The NRC found the licensee's position acceptable and did not include this item in EA 87-227.

During this inspection, the inspectors verified that the acoustic monitor preamplifiers had been replaced in January 1987, as had been stated in the AIT report. The inspectors also verified that the preamplifiers were listed in the Equipment Qualification System Component Evaluation Worksheet, Revision 6, dated September 19, 1990, as having a qualified lifetime of 3.94 years. The inspectors questioned the status of the replacement and were informed that the preamplifiers were being replaced during the present refueling outage. Therefore, this item is closed.

(CLOSED) Violation (313/8730-01;368/8730-01): Failure to establish and implement an adequate preventive maintenance program.

The licensee responded to this violation by letter dated November 30, 1987. In that response the licensee committed to complete the implementation of a Preventive Maintenance Improvement Program (PMIP) by October 1988. NRC acceptance of the licensee's response was provided by letter dated December 23, 1987.

A followup inspection determined that the PMIP had not been completely implemented within the period committed to by the licensee. The failure to fulfill the commitment to implement the PMIP resulted in the issuance of a Notice of Deviation 313/8926-01; 368/8926-01 (see below).

During this inspection, the inspectors verified that the PMIP implementation was complete. Therefore, this item is closed.

(CLOSED) Deviation (313/8926-01; 368/8926-01): Failure to complete corrective actions in accordance with commitment.

During an NRC inspection conducted in June 1989, the inspector noted that the licensee had not completed the implementation of the PMIP (see item 313/8739-01; 368/8730-01, above). The licensee responded to this Deviation by letter dated July 21, 1989. The licensee committed to have the necessary procedures implemented by October 31, 1990.

During this inspection, the inspectors reviewed the licensee's documentation which showed that the procedures included in the PMIP had been reviewed and revised. The inspectors also reviewed the listing of facility procedures to verify that the involved procedures had been revised. Based on these reviews, this item is closed.

(CLOSED) Open Item (313/8805-02; 368/8805-02): Emergency Diesel Generator (EDG) fuel oil (FO) quality programs.

During a previous inspection, concerns over the acceptability of the FO quality programs and the installation of a FO filter were documented. A subsequent inspection of the EDG FO systems was conducted in February 1989. During that inspection, that was documented in NRC Inspection Report 50-313/89-04; 50-368/89-04, the quality assurance program for the EDG FO was found to be acceptable.

The use of a dual element filter had been recommended in the earlier report as a means of improving EDG reliability. The licensee had not replaced the single element filter assembly on the ANO 1 EDGs with a dual element filter assembly. The licensee has, however, continued to evaluate the filter modification, as evidenced by a study document contained in Engineering Action Request (EAR) 88-440.

Since the FO quality assurance program was found to be acceptable, this item is closed.

(CLOSED) Violation (368/8805-03): Emergency diesel generator fuel oil leak corrective actions.

A FO leak occurred on an EDG in December 1985. During an inspection of corrective actions in 1988, the inspector noted that no root cause determination had been made for the FO leak and no long term corrective actions had been implemented. In response to the Notice of Violation issued for these deficiencies, the licensee stated that the repaired FO line had been subsequently replaced. In addition, the licensee determined that the root cause of the leak was a manufacturing defect.

In order to preclude recurrence of similar problems, the licensee implemented a Condition Reporting (CR) System in May 1988. The acceptability of the CR system was documented in NRC Inspection Report 50-313/8917; 50-368/8917, which was issued on May 15, 1989. Based on the completion of the hardware repairs and the implementation of the corrective action program, this item is closed.

(CLOSED) Unresolved Item (313/8805-05): Seismic Qualification of containment cooling fan motor assemblies.

During the previous inspection, the inspector was unable to locate documentation that provided the seismic qualification justification for the ANO 1 containment cooler fan motor assemblies. During this inspection, the licensee stated that the seismic qualification documentation had been located in the vendor drawing files. The inspectors reviewed the seismic calculation contained in file 6600-M61A-30-1 and found it acceptable. Therefore, this item is closed.

(CLOSED) Open Item (313/8844-01; 368/8844-01): Technical Specifications (TS) for service water (SW) system testing.

The previous inspection questioned the need to include a maximum lake water temperature limitation and a two loop flow test requirement in the TS for the SW systems. Subsequent to that inspection the NRC issued Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety Related Equipment," dated July 18, 1989. Included in the GL 89-13 recommendations was the need to consider system testing. The licensee responded to GL 89-13 by letter dated January 26, 1990. The NRC acceptance of the licensee's response was contained in a letter dated May 2, 1990.

During this inspection, the inspectors verified that the ANO 1 SW system testing procedure (1309.013) required two loop testing. Since the licensee's testing program was found acceptable and since the two loop testing is required by procedure, this item is closed.

(CLOSED) Followup Item (368/8941-01): Lack of tolerance/acceptance criteria for spring can supports. The inspectors reviewed the revision to Procedure 1092.023 which included tolerance/acceptance criteria for spring can supports and found it to be acceptable. This item is closed.

(CLOSED) Followup Item (368/8941-02): This item involved a difference in the number of Class 1 and 2 Inservice Inspection (ISI) supports to be examined. The licensee has since verified the number of ISI supports to be examined and have placed those supports in the computer for permanent tracking. The inspectors found the information provided to be acceptable. This item is closed.

(CLOSED) Followup Item (368/8937-01): Evaluate procedures for testing and calibrating the diverse reactor scram system (DSS) and the diverse turbine trip system (DTT).

As the result of the previous inspection, the inspectors had found the DSS and DTT design and installations to be acceptable but noted that testing procedures had not been developed. During this inspection, the procedures for operating, testing and calibrating the DSS and DTT were reviewed. Since the 18 month calibration of the DSS had not yet been required, or implemented, the procedure had not been validated. The inspectors found the procedures to be acceptable; therefore, this item is closed. (The procedures which were reviewed are listed in the Attachment.)

(CLOSED) Followup Item (368/8937-02): Evaluate licensee's actions to restore the safety injection actuation signal (SIAS) bypass in the ANO Unit 2 (ANO 2) EDG start circuitry.

During a previous NRC inspection involving the implementation of design changes, the inspector questioned the removal of the bypass for the EDG crank limit trip when a SIAS existed. The licensee agreed to restore the bypass for the crank limit trip and to pursue a licensing change to clarify the intent of the bypass.

During this inspection, the inspectors reviewed Job Orders 00799872 and 00799915 which indicated that the bypasses had been restored on the EDG 2DG1 control circuitry on November 8, 1989, and on the 2DG2 control circuitry on November 9, 1989. The inspectors also reviewed the procedure used to test the restored control circuitry, Procedure 2409.162, "Testing of Diesel Generator 1&2 Control Circuitry Modified by DCP 85-2134" dated September 27, 1989, which was implemented on November 11, 1989.

The inspectors found the above actions to be acceptable and this item is closed.

(OPEN) Followup Item (313/9010-02; 368/9010-02): Implementation of testing and calibrating procedures for the new ANO 1, and installation of upgraded ANO 2, service water (SW) bay level instrumentation.

During an inspection of the SW systems, the inspectors noted that procedures had not been developed to test and calibrate the level instrumentation that had been installed in the ANO 1 SW bays during the previous refueling outage. The inspectors also questioned the adequacy of the instrumentation installed in the ANO 2 SW bays.

During this inspection, the inspectors determined that the necessary procedures had not yet been developed and a decision to upgrade the ANO 2 instrumentation had not been made. The inspectors reviewed Condition Report (CR) 1-88-394 which documented a number of instrumentation problems. Included in the CR was a recommendation that procedures be developed for 36 instrument loops including the ANO 1 SW bay level instruments. The target completion date for developing the procedures was listed as December 17, 1990.

This item will remain open pending the implementation of testing and calibrating procedures for the ANO 1 SW bay level instruments and a determination by the licensee on the adequacy of the ANO 2 SW bay level instrumentation.

(OPEN) Followup Item (313/9011-01): Verify the ANO 1 battery testing requirements are upgraded to current standards.

During a previous inspection, the adequacy of the battery testing requirements contained in the ANO 1 TS was questioned. The inspectors were informed at that time that the licensee was planning to upgrade the ANO 1 TS to be comparable with the ANO 2 TS that were already being revised. During this inspection, the ANO 2 battery testing TS were determined to have been included in a license amendment application dated May 22, 1990. That application was under NRC staff review. The inspectors were informed that the ANO 1 TS would be amended to be consistent with the ANO 2 TS when that application is approved.

This item will remain open pending the submittal of a license amendment to upgrade the ANO 1 battery testing TS.

(OPEN) Deviation (313/9011-02; 368/9011-01): Failure to specifically identify postaccident monitoring instruments.

During an inspection of the instrumentation designed for postaccident monitoring in accordance with Regulatory Guide (RG) 1.97, the inspectors determined that a specific designator for those instruments had not been provided. By letter dated June 13, 1990, the licensee responded to the Notice of Deviation for this problem. The licensee committed to develop a list of involved instruments and to designate those instruments with a 'green dot.' The licensee further committed to implement a program for permanent markings of the instruments and a program for improved operator training. The licensee is scheduled to submit additional clarification of the commitment to RG 1.97 by December 15, 1990.

During this inspection, the inspectors verified that the 'green dots' were affixed to all of the involved ANO 2 instruments. This Deviation will remain open pending the implementation of the improved operator training program.

3. DESIGN CHANGES AND MODIFICATIONS PROGRAM (37702)

The inspectors reviewed the licensee's procedures for the control of design changes and modifications to ensure that the development, installation and verification of those activities were acceptable.

The overall control for changes to the facility were discussed in the ANO Plant Modifications Manual (PMM). The PMM listed 18 steps in the modification process. These steps were designed to move a modification from problem identification through classification and scheduling, design and approval, implementation and testing, and finally to completion and documentation closeout. Administrative Procedure 1000.103, "Plant Modification Process" Revision 5, provided the implementing instructions for the PMM and referenced

the 6000 Series of facility procedures for each of the six major areas: Documentation Control, Design Control, Procurement, Installation, Closeout, and Planning/Control.

The inspectors reviewed the applicable 6000 Series procedures and their subtier procedures in order to verify that sufficient detail was being provided to properly implement design changes and modifications. A listing of the procedures that were reviewed is contained in the Attachment.

The specific instructions for implementing modifications to the facility were provided by Procedure 6000.010, "Design Control Process," Revision 4. When a modification was required, the configuration control used to document and control the installation could be a Plant Change (PC), Limited Change Package (LCP), Design Change Package (DCP), or a Temporary Modification; any significant change required the use of a DCP.

The inspectors noted that Procedure 6010.001, "Design Change Package (DCP)," described the responsibilities for the preparation, review and approval of DCPs, and changes to DCPs. The procedure provided guidance for the evaluation of the effects of a proposed modification in the areas of 10 CFR 50.59, ALARA, Fire Protection, and Control Room Human Factors. The DCP was required to be a stand alone document which contained the detailed description of the modification, and the necessary drawings, calculations, specifications, and regulatory review considerations.

The inspectors found the procedures to provide adequate detail and guidance for the control of design changes and modifications.

4. FACILITY MODIFICATIONS (37701)

The inspectors reviewed the listing of design changes being implemented during the ongoing refueling outage and selected modifications which appeared to be the most significant. For this portion of the inspection, the inspectors selected modifications which required NRC approval pursuant to 10 CFR Part 50.59. These modifications were evaluated to ensure that the changes were made in conformance with the applicable requirements.

4.1 EDG Starting Air System

The inspectors reviewed DCP 87-D-1127 which was initiated to improve the starting air system for the ANO 1 emergency diesel generator sets (EDGs). The DCP discussed the problems that were being encountered with the starting air systems and the proposed improvements. The changes included: the installation of new air compressors including aftercoolers, dryers and filters; replacing the carbon steel air receivers with larger volume stainless steel air receivers that will operate at a lower pressure; and the replacement of carbon steel piping with stainless steel piping.

The change to stainless steel components was made to limit the corrosion product contamination problems which were being encountered with the carbon steel components and moist air. The new air compressors along with the new

dryers, aftercoolers and filters were being installed to improve the quality of the stored air. The use of larger volume air receivers would allow a reduction in the required storage pressure while maintaining the same stored energy and thus EDG starting air capability. The lower pressure would also allow the elimination of the pressure reduction valves. However, the ANO 1 Technical Specifications (TSs) stipulate testing the EDG starting air system to ensure that a pressure of 225 psig could be achieved. Since the new system was designed to operate between 190 and 220 psig, a change to the TSs would be required prior to returning the facility to operation. The licensee requested a TS change by letter dated September 20, 1990. The NRC had not yet approved that license amendment application during this inspection period.

The inspectors verified that the changes to the EDG starting air system were being implemented in accordance with the DCP and the license amendment application. The DCP was verified to contain the required reviews and approvals and was found to be complete and well planned.

The inspectors found the installation work on the "B" EDG, which was essentially complete except for the installation of piping and component supports, to be acceptable. The inspectors reviewed the installation instructions and found them to be acceptable. The inspectors also found the post-installation testing requirements to be acceptable.

4.2 High Pressure Injection System

On January 20, 1989, ANO 1 experienced a reactor trip initiated by a generator lockout. Following the trip certain conditions required the operators to initiate additional HPI flow to the RCS manually. While performing these operations, it was discovered that a check valve in the "B" injection line had failed to reseal after HPI flow was terminated, resulting in backflow of reactor coolant into the HPI line and subsequent overheating of the line.

As a result of this transient, the licensee undertook a thorough review of the HPI system to reevaluate the qualification and ability of both the individual components and the HPI system as a whole to withstand all of the conditions which could result from transients and steady state operations. During this review, it was discovered that a postulated break of an HPI injection line, just upstream of the RCS cold leg connection and downstream of the first check valve, could constitute a small break LOCA not currently enveloped by the approved 10 CFR Part 50.46 and 10 CFR Part 50, Appendix K analyses.

To correct this condition, the licensee made a modification to the HPI system which removed (1) the cross connecting piping; and (2) added two more flow paths to each train that supplies flow to the two lines in the other train. This arrangement allows either train to supply all four injection lines, like the existing arrangement, but will allow any injection line to be throttled independently of the other three. There will be a flow instrument in each of the lines which displays flow in the control room, and the flow instruments in the existing lines will be replaced with new ones identical to those which will be installed in the new lines.

The inspectors verified the following items by direct observation:

Work was being performed in accordance with approved procedures;

Completed work conformed to the as built drawings;

Qualified welders were performing the work; and

Emergency Operations Procedures (EOPs), that were affected by the design change, were revised to indicate appropriate operator actions.

The inspectors also verified that equipment model, dimension, and materials were as required by the drawing. The inspectors verified that separation was maintained between redundant divisions. This modification was not complete; therefore, postmodification testing could not be observed. Control room instrumentation was also not installed at the time of this inspection.

Review and examination of this modification indicated that work was being performed properly in accordance with approved procedures and drawings.

5. INSTALLATION AND TESTING OF MODIFICATIONS (37828)

The purpose of this inspection was verify that onsite activities and hardware associated with the installation of plant modifications, which are not submitted for approval to the NRC, are in conformance with the requirements of Technical Specifications, 10 CFR Part 50.59 and 10 CFR Part 50, Appendix B.

5.1 Procedure Review

The inspectors reviewed procedures pertaining to the modification process, design change packages (DCPs) and the design control process. Procedures reviewed appeared to be adequate and to contain a sufficient amount of instruction. Procedures reviewed are listed in the Attachment to this report.

5.2 Limited Change Package (LCP) No. 90-5016

This LCP was generated to respond to concerns raised in the 1989 NRC Service Water Diagnostic Evaluation, concerning loss of Service Water (SW) from nonseismically qualified connecting piping in the event of a seismic event. If a seismic event occurred, the existing nonseismic vacuum breakers and circulating water lines could break, potentially releasing enough water such that safety-related components in the system would not receive an adequate supply of water. The licensee committed to upgrade these lines.

The inspectors' review and examination of this modification indicated that materials used were as specified by the installation drawings; qualified welders were performing the work; completed work conformed to the installation drawings; and that the overall alignment and configuration was correct. This modification was also in progress and not complete during this inspection.

5.3 Design Change Package (DCP) No. 90-2046

As part of an ongoing program implemented to ensure that switch settings on certain motor operated valves (MOV's) are set and maintained correctly to accommodate the maximum differential pressures expected on these valves, the calculations used in establishing the design and functional requirements (e.g., torque switch settings, valve actuator sizing, etc.) for MOV's in various plant systems are being reviewed and revised, if necessary. The calculation revisions are necessary due to the development of new differential pressures that are postulated to exist across the valves. The new differential pressures are being derived by utilizing different assumptions for plant operating conditions which are worst case conditions. Current design requirements for these valves had not always assumed worst-case conditions.

Revised calculations for the low pressure safety injection (LPSI) system header isolation MOV's (2CV-5017, 2CV-5037, 2CV-5057 and 2CV-5077) indicated that, based on assumed worst case conditions, these valves were required to operate (close) against a maximum differential pressure of 1260 psid. This differential pressure was significantly larger than the original differential pressure which was used to establish the existing design requirements for these MOV's.

To resolve this issue, the licensee consulted with the valve manufacturer, Target Rock Corporation (TRC). TRC informed the licensee that the Limitorque actuator could be modified by changing the gearing and torque switch setting. These changes would allow the actuator to close the valve against the postulated differential pressure. The licensee developed and implemented these modifications during the 2R7 refueling outage.

The inspectors reviewed the DCP and identified no problems. The inspectors verified that FOP's that were affected by the modification were revised to indicate any necessary operator actions and that test results for this DCP were within established acceptance criteria.

Overall, the review and examination of these modifications indicated that the program for the installation and testing of modifications is functioning properly and in accordance with approved procedures.

6. OFFSITE SUPPORT STAFF (40703)

The purpose of this inspection was to ascertain whether the offsite support staff functions are performed by qualified personnel in accordance with licensee approved administrative controls.

6.1 Background

During this inspection the inspectors noted that the Little Rock based offsite nuclear operations engineering and support personnel for ANO had relocated to

the ANO site. This move was a part of the Entergy Corporation nuclear management consolidation program.

6.2 Administrative Controls

The inspectors verified through interviews and review of procedures that the licensee had adequate administrative controls covering offsite support activities. These administrative controls described the responsibilities, authorities, and lines of communication for personnel who perform offsite functions. Because of the recent transfer of engineering functions to the ANO site, the offsite procedures and programs are now in transition and are being combined into one. Procedures that were reviewed by the inspectors are in conformance with the licensee's approved QA program and 10 CFR Part 50, Appendix B. Procedures reviewed are listed in the Attachment to this report.

6.3 Personnel Interviews

The inspectors interviewed one manager, one supervisor, and one staff member in the Design, Quality Assurance, and Procurement organization. Through these interviews the inspectors verified that personnel met the qualification requirements for their position and that they performed these duties in accordance with the administrative controls. Personnel interviewed were knowledgeable of the administrative controls and the requirements of their duties.

All personnel interviewed met ANSI N18.1 and ANSI/ANS 3.1 qualification requirements.

6.4 Quality Assurance Audit

The inspectors reviewed the results of a QA audit performed in the area of Plant Modification Process/Design Engineering during November 27, 1989 through January 26, 1990. Deficiencies were identified and documented in the audit report.

Review of the responses to the findings indicated that the affected organization responded properly with adequate corrective action.

7. EXIT MEETING

The inspectors met with the personnel identified in paragraph 1 on November 9, 1990, and discussed the scope and findings of the inspection. The licensee did not identify as proprietary any of the information reviewed by the inspectors during the inspection.

ATTACHMENT

DOCUMENTS REVIEWED

<u>NUMBER</u>	<u>REVISION</u>	<u>SUBJECT</u>	<u>DATE</u>
1000.103	5	Plant Modification Process	2/20/90
1000.104	7	Condition Reporting and Corrective Actions	2/28/90
1032.011	11	Control of Drawings and Drawing Revisions	10/24/90
1092.182	2	Vendor Technical Manual Review and Update	10/09/90
1092.183	0	Component Data Base Control	3/6/89
1309.013	1	Service Water Flow Test	4/4/89
2105.017	0	Diverse Scram System Operations	11/10/89
2304.174	0	DSS Refueling Calibration	Draft
2304.177	0	Test of CEDMCS UV Relays	12/15/89
2409.162	0	Testing EDG Control Circuitry	9/27/89
4001.05	3	Control of Construction	6/8/89
4011.03	10	Administrative Control of CWPs	4/18/90
6000.010	4	Design Control Process	2/20/90
6000.020	6	Design Document Control	2/20/90
6000.030	6	Control of Installation	2/20/90
6000.040	5	Project Planning and Control	8/21/90
6000.050	3	Control of Procurement Process	2/20/90
6000.060	5	Project Closeout	2/20/90
6010.001	4	DCP Development	8/24/89
6010.003	1	Limited Change Package & Plant Change Development	8/20/90
6030.001	9	Installation Plan	8/20/90
6030.002	3	Field Change Requests	8/16/88
6040.001	1	Project Plan	7/10/89
6060.001	6	Modification Package Closeout	8/20/90
NQA-1	2	Nuclear Quality Organization	7/12/89
NQA-2	2	Indoctrination and Training of Nuclear Quality Personnel	12/1/88