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

Report No. 50-313/77-10; 50-368/77-11

Docket No. 50-313 License No. DPR-51
50-368 Construction Permit No. CPPR-89

Licensee: Arkansas Power & Light Company
Sixth & Pine Streets
Pine Bluff, Arkansas 71601

Facility Name: Arkansas Nuclear One, Units 1 and 2

Inspection At: ANO Site, Russellville, Arkansas and AP&L Corporate Offices, Little Rock, Arkansas

Inspection Conducted: May 31 - June 3, 1977

Inspectors:

J. E. Gagliardo, Reactor Inspector — Date: 6/16/77

M. W. Dickerson, Reactor Inspector — Date: 6/16/77

T. F. Westerman, Reactor Inspector — Date: 6/16/77

E. H. Johnson, Reactor Inspector — Date: 6/16/77

For W. D. Johnson, Reactor Inspector — Date: 6/16/77

R. G. Spangler, Reactor Inspector — Date: 6/16/77

Approved By:

G. L. Madsen, Chief, Reactor Operations and Nuclear Support Branch — Date: 6/16/77

Inspection Summary

Inspection on May 31 - June 3, 1977 (Report No. 50-313/77-10, 50-368/77-11)

Areas Inspected: Special announced inspection of QA Program implementation; quality assurance for the Unit 2 startup testing program; Unit 2 plant operating, emergency and maintenance procedures; Unit 2 precritical test procedures verification; and followup on previously identified open items. The inspection involved 186 inspector-hours on-site by six NRC inspectors.

Results: Of the five areas inspected, no items of noncompliance or deviations were identified in three areas; two items of noncompliance (infraction - failure to conduct audits of requalification program - paragraph 4; infraction - failure to follow QC procedures - paragraphs 9 and 10) and two deviations (insufficient review of Q List revisions and drawing changes - paragraphs 3 and 5; failure to maintain Unit 1 preventive maintenance schedule - paragraph 6) were identified in one area and one deviation (failure to complete the issuance of plant procedures as scheduled - paragraph 16) was identified in another area.

DETAILS

1. Persons Contacted

Arkansas Power & Light Company Employees

*L. Alexander, Quality Control Engineer
L. W. Anderson, Engineering Records Clerk
M. L. Alexander, Startup Engineer
J. R. Anderson, Assistant Production Startup Supervisor
*J. W. Anderson, Superintendent of Power Plant
L. Arnold, Startup Engineer
B. C. Austin, Clerk Typist
B. A. Baker, Assistant Operations Supervisor
T. L. Bell, Shift Supervisor
D. N. Bennett, Production Startup Supervisor
*M. Bishop, Records Supervisor
T. H. Cogburn, Nuclear Engineer
P. J. Cole, Procedures Clerk
*R. M. Cook, Licensing Engineer
R. T. Elder, Assistant I&C Supervisor
*F. B. Foster, Production Engineer
*J. S. Grisham, Electrical Supervisor
C. A. Halbert, Technical Support Engineer
*D. R. Hamblen, Quality Control Inspector
D. R. Hollis, Machinist
*A. W. Huebner, QA Engineer
*L. W. Humphrey, Quality Assurance Engineer
*P. Jones, I&C Supervisor
V. Kinsey, Assistant Engineer
*R. D. Lane, Mechanical Supervisor
J. P. Lowman, Assistant I&C Supervisor
T. Mansell, SRC Secretary
*G. H. Miller, Assistant Plant Superintendent
*M. L. Pendergrass, Nuclear Fuel Manager
*D. R. Sikes, Nuclear Projects Manager
S. K. Singleton, Procedures Clerk
D. F. Spond, QA Engineer
*S. S. Strasner, Quality Control Inspector
R. L. Turner, Assistant I&C Supervisor
W. W. Washburn, Startup Engineer
J. G. Waxenfelter, Senior Instrument Technician
R. P. Wewers, Shift Supervisor

Bechtel Employees

C. M. Harding, Office Assistant
J. C. Longinotti, Startup Engineer

*Indicates those attending the exit interview

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2. Objective of the Inspection

The primary objective of this inspection was to review the licensee's implementation of his NRC approved QA program for station operations on Unit 2. The inspection included a review of the latest revision (No. 3) of the "Quality Assurance Manual - Operations" and the procedures which have been issued to implement the program. The inspectors interviewed licensee representatives to determine their understanding of the above implementing procedures. The inspectors also reviewed the records of activities which had been performed under the above procedures to verify conformance to these procedures. Although this inspection was originally planned for Unit 2 activities, the status of Unit 2 was such that many of the desired activities had not yet been performed for Unit 2. Since many of the implementing procedures for the QA program are identical for Units 1 and 2, the inspectors reviewed some Unit 1 activities to ascertain the licensee's understanding of and conformance to his QA program requirements.

3. QA/QC Administration

The inspector reviewed the QA program documents which identify the scope of the QA program and the provisions for making changes to these documents. The inspector reviewed the administrative controls for QA/QC procedures including review and approval, revision and distribution. The licensee's plans for overall review of the effectiveness of the QA program were also reviewed.

These reviews and discussions with licensee personnel revealed that revisions to the Q List are reviewed within the licensee's organization only by the Nuclear Services Department. Table 17.1-1 of the licensee's FSAR requires certain AP&L groups to review the Q List and its revisions. This table requires review by not only the Nuclear Services Department, but also the Quality Assurance organization and the Safety Review Committee. The failure of the licensee's QA organization and Safety Review Committee to review revisions to the Q List is an apparent deviation (Deviation 7711-1) from the licensee's commitments stated in the Final Safety Analysis Report.

The above Q List review requirements are not reflected in the appropriate implementing procedures, NSP-II-4 and the Safety Review Committee Charter. This item will remain open pending their revision to include the FSAR Q List review requirements.

No items of noncompliance or other deviations were identified.

4. QA Program - Audits

The inspector reviewed the licensee's program for conducting quality assurance audits to determine that the program was in conformance with the FSAR commitments and license conditions.

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The inspector reviewed the below listed documents and procedures to determine that responsibilities have been assigned for the management of the audit system, determining audit scheduling, reporting of audit findings and following up on audit discrepancies. The implementation of the program was inspected by a review of the audit checklist and audit findings for 18 selected audits conducted over the past year by the licensee's on-site and corporate quality assurance department as well as by the licensee's Safety Review Committee.

The following documents were reviewed:

Quality Assurance Manual - Operations
Quality Assurance Administrative Procedures (QAA Series)
Quality Assurance Procedures for Audits (ANO Series)
Safety Review Committee (SRC) Charter and Audit Procedure

Within this area of inspection the following items were identified.

The inspector noted in reviewing SRC audits conducted since February 1976 on Unit One that no audit was conducted on the operator requalification program. Unit One Technical Specification 6.5.2.8 requires that:

"Audits of facility activities shall be performed under the cognizance of the SRC. These audits shall encompass:

"a. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per year.

"b. The performance and retraining of all members of the plant management and operations staff, . . . at least once per year . . . ."

Technical Specification 6.4.1 requires that a retraining program be established for the facility staff that meets or exceeds the requirements of Appendix A to 10 CFR 55.

The failure to conduct an audit of the operator requalification program is in noncompliance with the above Unit One Technical Specification requirements.

In reviewing the requirements for audits specified in the Quality Assurance Manual, the inspector noted that section 18.5.1 requires, "when audits are conducted within organizations other than AP&L, written responses are required to describe measures taken to correct deficiencies and prevent recurrence." This section contains no specification that a written response be required on audits conducted on organizations within AP&L (where the audit yields findings requiring action). Further, there is no

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specification that audit responses be forwarded in a timely manner (such as 30 days). The inspector noted that the licensee, in practice, requires written responses to internal audits with findings and requests such a response by a specified date. This matter is considered unresolved. (Unresolved Item 7711-1)

Several additional items were noted by the inspector which were discussed with the licensee and indicated as items requiring further follow up.

The inspector noted that audit procedure ANO-20 covers the preoperational test program. According to the scope of this procedure the preoperational test program ends at the time of the issuance of the operating license. The inspector noted that this infers that no quality assurance auditing of the power ascension test program will be conducted. The licensee indicated that it was the intention of the audit program to cover this phase of the test program. The licensee committed to changing the scope of ANO-20 to include the complete startup test program. This item remains open.

The inspector noted that the procedures governing the quality assurance audit program do not contain general instructions covering the responsibility for issuing audit reports, specifying the requirement for the independence of auditors, and delineating the criteria for reaudits. This item remains open.

The inspector noted that the requirement for the SRC to audit for conformance to Technical Specifications is satisfied by making a finding that applicable Technical Specifications were adhered to whenever a functional area such as radiation protection, maintenance, etc., is audited. There is no coordinated audit performed which performs a sampling of all plant activities to determine conformance to the Technical Specifications. The inspector indicated that the present program might lead to gaps whereby an area of Technical Specification conformance was inadvertently not audited. The licensee indicated that this item would be taken under review. This item remains open.

No other items of noncompliance or deviations were noted in this area.

5. Document Control

The inspector reviewed the licensee's administrative controls for drawings and procedures. The inspector also selectively reviewed the drawings maintained at the site to verify that the above controls are effective in removing obsolete drawings and replacing them with the latest approved revision of the drawing.

The licensee's on-site controls for drawings are outlined in QC Procedure 1004.23. This procedure does provide for adequate control of drawings,

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but it does not require the timely distribution of drawings and drawing changes, nor does it require licensee representatives to identify discrepancies between as-built drawings and the as-constructed facility. The inspector expressed his concern in these areas to licensee management, but noted that he had found no evidence that these concerns had led to (or contributed to) a drawing control problem.

The licensee has established master indices for drawings, procedures, temporary procedure changes and other frequently changed documents. QC Procedure 1004.22 requires that the index for the temporary procedure changes be reviewed annually. There were, however, no requirements for the periodic review and verification of the accuracy of the other indices. This was discussed with licensee management and identified as an open item.

The inspectors reviewed the licensee's QC procedures to determine the requirements for the periodic review of plant procedures. QC Procedure 1004.21 (Rev. 1 PC #1) states, "Each procedure and changes thereto shall be reviewed by the PSC and approved by the Superintendent of Power Plant prior to implementation and reviewed periodically as set forth in this procedure." No such review requirements are specified in this procedure.

Administrative Procedure 1005.01 requires that procedures be reviewed annually for the first three years of plant operation and once every two years thereafter. It was noted, however, that 1005.01 is applicable only to Unit 1. A licensee representative said that this procedure was being revised to make it applicable to both Units 1 and 2. The inspectors reviewed a draft copy of the proposed revision to 1005.01 and noted that it would only require a procedure review every two years.

The inspector noted that paragraph 5.4 of ANSI Standard N18.7 - 1972 states in part, "Each procedure shall be reviewed prior to initial use and periodically thereafter. The frequency of such reviews shall be specified. . . . During the early phases of plant operation, operating procedures should be reviewed to determine if changes are necessary or desirable no less frequently than annually."

The inspector indicated that if the revision to procedure 1005.01 were approved requiring other than an annual review for Unit 2 procedures, such action would be an apparent deviation from the above guidance of ANSI N18.7 to which the licensee is committed through his QA program. A licensee representative said that they would look into this problem. This matter is considered unresolved. (Unresolved Item 7711-2)

The licensee uses a "Record of Revisions and Approval to Station Procedures" Form (A-1) to designate the units to which individual procedures apply. The inspector found, however, that the licensee has no similar method for

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designating the units to which Standing Orders and Special Orders apply. This matter was identified as an open item.

In Section 13.3 of the Unit 2 FSAR the licensee indicated that the Emergency Plan issued for Unit 1 was also applicable for Unit 2 operations. The inspector found, however, that a copy of the Emergency Plan had not been placed in the Unit 2 control room. A licensee representative said that a copy of the plan would be placed in the Unit 2 control room. This item remains open.

The inspector found that the licensee's Unit 2 drawings are essentially controlled by their AE (Bechtel). Changes to mechanical drawings are generally initiated by the completion of a Drawing Change Notice (DCN) form. The DCN form documents the changes to be made to the applicable drawing and provides documentation of management's (Bechtel) review and approval of the change. The DCN also permits identification of the need to submit an FSAR change as a result of the drawing revision. The inspector found that a few electrical drawing revisions had been made in accordance with a DCN, but he found that most of the changes to electrical drawings are not controlled by the DCN process. Licensee representatives were unable to identify the documentation used by the AE to control electrical drawing changes. This matter is considered unresolved (Unresolved Item 7711-3) and has been referred to the Region IV Construction Branch for followup.

The licensee's controls (review and approval) of drawing changes, which are initiated by licensee personnel through a design change request or a drawing change request, have been adequately covered by the QC procedures (1004 series). The inspectors found, however, that the licensee has little control over changes made to drawings initiated by the AE's organization. Nuclear Services Procedure NSP-II-4 requires that changes to P&ID drawings be reviewed by the licensee's nuclear services (engineering) organization. The inspector found evidence that the above reviews had been made to P&ID revisions, but he found that other safety related drawings had been changed and had not been reviewed by the licensee. Section 17.1.3 of the Unit 2 FSAR establishes the design control measures for the construction phase of Unit 2. This FSAR section references a Table 17.1-1 which states that the licensee will review Bechtel and CE Engineering Drawings. Note 3 of Table 17.1-1 clarifies the licensee's review as follows:

"3. AP&L review procedure consists of reviews by:

"A. Nuclear Services

"B. Quality Assurance Organization

"C. Safety Review Committee (When applicable) as explained in Section 17.1.1.1 of the FSAR and AP&L QA Manual."

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Since Criterion VI of 10 CFR 50, Appendix B requires that changes to documents shall be reviewed and approved by the same organizations that perform the original review and approval, the licensee's failure to review all safety related drawing changes constitutes an apparent deviation from the above FSAR commitment.

The inspector reviewed the licensee's controls which will assure that drawing and design changes which require an FSAR or TS amendment are appropriately identified and followed through to the subsequent TS or FSAR amendment. For changes which have been (or will be) made during the operational phase of Units 1 and 2, the licensee uses a Design Change Request form to document and follow the change through to the FSAR/TS amendment. This activity is accomplished by the Licensing Organization of the licensee. The Licensing group does not, however, have a similar means of following Unit 2 drawing/design changes. A licensee representative agreed that this appeared to be a weakness in their program and said that he would discuss it with his management. This item remains open.

No items of noncompliance were identified in this area.

6. Quality Assurance Program - Maintenance

The objective of this inspection effort was to ascertain whether the licensee has developed and implemented a QA program relating to maintenance activities that is in conformance with the license, regulatory requirements and accepted standards.

The inspector reviewed the below listed procedures to determine that appropriate controls have been developed for initiating maintenance activities, controlling the work in progress, inspecting the work, and testing the component following work. The inspector also reviewed the licensee's procedures for controlling special processes, scheduling and executing preventive maintenance and controls for ensuring equipment is properly authorized for removal from service.

Procedure Number	Title
1004.14	Initiation and Processing of Job Orders
1004.08	QC Inspections
1005.01	Administrative Practices
1004.10	Calibration Controls
1004.18	Material Identification
1004.19	Hold, Caution and QC Tagging
1005.02	Preventive Maintenance Scheduling
1004.07	Control of Special Processes
1406.02	Cleanliness Standards
1406.01	Housekeeping Maintenance Procedure

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The inspector selected four recently completed maintenance activities for a detailed review to verify implementation of the above requirements.

The inspector noted that the licensee has developed a preventive maintenance program for Unit One equipment. However, various problems experienced with manpower have prevented the performance of a majority of the scheduled preventive maintenance requirements in the mechanical area.

The failure to perform preventive maintenance items as scheduled is an apparent deviation (Deviation 7710-1) from the guidance in ANSI Standard N18.7 - 1972, section 5.1.6.2 which requires the establishment and maintenance of a preventive maintenance program. The operation and maintenance of the plant is intended to be responsive to this Standard as indicated by the policy statement in the NRC approved QA Manual - Operations.

The licensee acknowledged this finding.

The inspector noted that the preventive maintenance program for Unit Two equipment is not yet formalized, although much of the program is written in draft form for the mechanical and electrical area. The inspector indicated that this item would remain unresolved pending a review of the completed program. This item is designated as Unresolved Item 7711-4.

In reviewing the licensee's procedures for controlling work activities the inspector noted that no special provisions have been provided to specifically control work activities involving an increased fire hazard, such as welding, burning or other ignition sources. Such special controls as normally employed in the industry include special authorization for such activities as welding, burning, etc., and includes requirements for appropriate fire watches and safety precautions. The inspector indicated that the operating personnel could not be expected to be made aware of such activities via the work permit or job order alone since a single work item may extend over some lengthy period of time and include several discrete periods of such fire hazard activities as welding or burning. At present, the licensee is using a contractor exclusively for all welding and cutting activities on both units and the contractor's program includes a fire watch. Since the licensee has long-term plans to develop his own welding and burning program, the inspector indicated that the lack of such controls as described above would remain unresolved. This item is designated as Unresolved Item 7711-5.

During the exit interview, the inspector discussed several additional items of concern which were identified to require additional inspection effort.

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The first item involved the documentation of post maintenance checkout of equipment that has been worked on. For many safety related components the performance of the appropriate Technical Specification surveillance requirement is sufficient to demonstrate operability of the component following maintenance. When such a checkout or alternative is performed, its completion should be noted on the job order. This item will remain open pending review by the licensee of this area.

The second item noted by the inspector is the lack of a formalized program to review equipment performance, maintenance data and failure history to assess the adequacy of equipment design and the preventive maintenance program. The licensee indicated that an equipment history program was to be established and in conjunction with the failure data under the NPRDS system that such a monitoring program would be possible. This item will remain open for future review.

No additional items of noncompliance or deviations were noted in this area.

7. Design Changes and Modifications

The objective of this part of the inspection was to determine that procedures had been established for control of design and modification change requests and to verify implementation of the procedures. However, this part of the inspection could not be completed since those plant procedures required for control of design changes or modifications had not been approved for use on Unit Two. This will remain as an open item pending completion and approval for use of plant procedures 1004.01, "Design Control," 1004.23, "Drawing Control," and 1005.04, "Control and Use of Bypasses and Jumpers."

For those Nuclear Services procedures which are utilized by the Nuclear Services organization at the Corporate Headquarters in Little Rock for design changes and modification, the inspector determined the requisite procedures are available, approved and are being implemented. To determine this the inspector reviewed the following procedures and reviewed records of implementation relative to Design Change Request Nos. 446, "Unit 1/Unit 2 Interconnection, Fuel Handling Crane," 474, "Unit 1/Unit 2 Interconnections, Control Room Ventilation," and 491, "Install Add-on (Piggy Back) Filtration Unit to Existing #1 Unit Control Room Emergency Filtration Unit - VSF-9."

Nuclear Services Procedures

II-1 Design Interface Control, Rev. 1, 10/11/76
II-2 Design Criteria, Rev. 1, 10/1/76
II-3 Design Process, Rev. 3, 10/1/76
II-4 Design Verification, Rev. 6, 1/27/77
II-5 Design Change Control, Rev. 6, 2/24/77
II-6 Design Deficiency/Corrective Action, Rev. 5, 10/1/76
II-7 Design Document Control, Rev. 3, 1/27/77
II-8 Design Drawing Control, Rev. 3, 1/27/77

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No items of noncompliance or deviation were identified.

8. Surveillance Testing

The inspector reviewed the licensee's preparations for controlling surveillance testing and calibration of safety related components. Items reviewed included scheduling methods, procedural controls for conducting and evaluating surveillance tests and calibrations, and status of surveillance and calibration procedures.

The inspector found that the licensee has not developed a master schedule for surveillance testing and calibration of safety related components. Through the QA Manual for Operations, the licensee has committed to comply with ANSI Standard N18.7 - 1972. Section 5.1.7 of this standard requires that provisions for surveillance testing shall include the establishment of a master surveillance schedule reflecting the status of all planned in-plant surveillance testing.

The licensee does not presently maintain a master surveillance schedule for Unit One. The responsibility for assuring that surveillance tests are performed at the required frequency is assigned to individual supervisors, such as the Operations Supervisor, I&C Supervisor, and Maintenance Supervisor. The fact that the present system has not always been effective is evidenced by the five below listed Licensee Event Reports submitted since July 1976.

LER 76-19
LER 76-23
LER 76-31
LER 77-10
LER 77-11

These LER's all report licensee failure to perform surveillance tests at the frequency required by the Unit One Technical Specifications, and demonstrate a need for greater licensee management attention to surveillance test scheduling.

The licensee has not yet completed the preparation of a listing of all Unit two TS surveillance and calibration requirements, showing responsibility assignments. It is understood that this listing, when completed, will be added to Quality Control Procedure 1004.12. The licensee has not completed the preparation and approval of the required Unit Two surveillance test and calibration procedures. This matter is unresolved. (Unresolved Item 7711-6)

No items of noncompliance or deviations were identified.

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9. Procurement Control

a. Inspection Scope

The inspector's audit of this area was based on procedures applicable to Units 1 and 2. The inspection of implementation was based primarily on Unit 1 procurements, since only a limited procurement of safety related components by the operating organization has occurred for Unit 2.

The inspector verified that administrative controls have been established to assure the proper inclusion of quality requirements within procurement documents, that responsibilities have been established in writing, and that bidder qualification requirements have been established. The inspector verified that the associated administrative directives have been made available to the responsible personnel. The inspector reviewed six recently issued safety related purchase orders.

b. Inspection Findings

(1) The inspector noted that recent purchase orders (i.e., PO #31790, 31789, 33442 and 32617) were not approved by the plant superintendent and/or his assistant as prescribed by QCP 1004.05, Rev. 3, Section 4.4. This was stated by the licensee to have occurred as the result of a recent change in administrative policy which allowed purchase approvals by other designated individuals if the purchase did not exceed $1,000.00. The licensee was able to demonstrate to the inspector that the licensee's QA organization had made a similar finding during an ANO-1 audit (14-4-1). This practice was stated by the licensee to have been discontinued pending revision to QCP 1004.05.

(2) The inspector identified two recent Purchase Orders (PO #33442 - Unit 2 Containment Spray Valve Spare Parts, and PO #28494 - Unit 1 Pressurizer Spray Control Valve Spare Parts) that were procured from vendors not on the approved vendor list. The licensee's approved QA Plan states in section 4.2.1, "Vendors shall be selected from the Qualified Vendor List (QVL)." The failure to comply with the approved QA Plan is considered contrary to 10 CFR 50, Appendix B, Criterion V.

(3) The licensee's present practice of using Case and ASME as the sole basis for vendor qualification is considered to be unresolved (Unresolved Item 7711-7). The licensee was informed that further guidance on this matter is being requested from IE Headquarters.

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(4) The inspector found that the licensee's QC Procedure 1004.05, Revision 3, did not appear to include the pertinent requirements of ANSI 45.2.2 with regard to categorization of safety related items for procurements. There was no guidance provided consistent with ANSI 45.2.2 for the shipping, handling, or packaging of items from a previous supplier (except as may have been contained in the original purchase order). QC Procedure 1004.11, Rev. 2, did appear to envoke ANSI 45.2.2 requirements, but only after the item had been received on the site. This item is considered unresolved. (Unresolved Item 7711-8)

10. Receipt, Storage and Handling of Equipment and Materials

a. Inspection Scope

The inspector's audit of this area was based on procedures applicable to Units 1 and 2. The inspection of implementation was based on Unit 1, since the licensee's contractor has the present responsibility for Unit 2 and no replacement parts for Unit 2 have been turned over to the operating organization.

The inspector verified that administrative controls have been established for receipt of safety related items in accordance with FSAR commitments; disposition of items received on site; storage; and handling. The inspector reviewed the records associated with six recent pruchase orders. Three safety related items in the warehouse were traced back to their associated quality documentation. A tour of the on-site storage area was conducted by the inspector, and included the on-site hold area.

b. Inspection Findings

(1) The inspector found evidence of only partial visual receipt inspection of the following purchase order associated with Unit 1:

PO 20777 - Agastat Relays

Only one of eight shipping boxes observed had been opened for inspection.

PO 08985 - HEA Relays

Only two of nine shipping boxes observed had been opened for inspection.

Since these are Unit 1 vintage procurements, the original receipt inspection requirements were stated by the licensee to be limited.

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This item was brought to the licensee's attention for further consideration in view of QC Procedure 1004.06 requirements that "8.4 Unless the packing marking prohibits unpacking, the contents of all shipments are visually inspected to verify that the specified packaging and shipping requirements, if any, have been maintained."

(2) The inspector identified that the manufacturer's instructions attached to the 10 HP Decay Heat Removal Fan Cooler Motor (PO 15661 - Unit 1) stated that for long-term storage (over three months), Factory Instruction 5IX3963 should be consulted. The manufacturer's instructions further specified the addition of oil to motor reservoir and turning of the shaft several times every month. It was not apparent that manufacturer's recommendations had been complied with. No oil had been added to the motor reservoir. Warehouse personnel had no knowledge of the recommendations to turn the shaft. The motor had been in storage since 1973.

The licensee's approved QA Plan, Section 7.6.1, states that "Q List material shall be handled and stored as prescribed in the procedure for handling, storage, and shipping of Q List materials (QCP 1004.11)." QCP 1004.11 states in part, "5.1 Q List items, identified as such by Q Tags, are stored in areas appropriate . . ., the manufacturer's recommendations, and any additional requirements which may be established by the QCE." The failure to follow the above procedure is considered contrary to 10 CFR 50, Appendix B, Criterion V.

(3) The inspector was informed that QC Procedure 1004.13 is being revised to be consistent with the conditional release provisions for equipment prescribed in the approved QA Plan, Section 7.3.2. The item is considered to be open.

(4) The inspector found no formal method of feedback to the QA home office of vendor past performance (QA Plan, Section 4.2.2), and/or information necessary to assure timely vendor reappraisal (QA Plan, Section 15.2.3). This item is considered unresolved. (Unresolved Item 7711-9)

11. QA Records

The inspector reviewed the licensee's program for the control of QA records, interviewed selected licensee representatives and examined the storage/handling of selected records to verify that QA records are being controlled in accordance with NRC requirements and the licensee's commitments.

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The records control system and the record storage facilities for Unit 1 will be utilized for Unit 2 records. The control of records is established by QC Procedure 1004.24. The controls in this procedure are adequate with one exception. Procedure 1004.24 did not establish a method to be used for verifying that records received are in agreement with the transmittal document. A licensee representative said that Procedure 1004.24 would be revised to resolve this issue. This item is considered unresolved. (Unresolved Item 7711-10)

No items of noncompliance or deviations were identified.

12. Tests and Experiments

The objective of this part of the inspection was to determine that a formal method and procedures had been established for conducting plant tests and experiments involving safety related components, systems or structures or modes of operation differing from those described in the FSAR and to verify its implementation. However, this part of the inspection could not be completed since those required plant procedures had not been approved for use on Unit 2. This will remain as an open item pending completion and approval for use of plant procedure 1004.12 "Operational Test Control," and 1005.01 "Administrative Controls Manual."

Those applicable procedures reviewed which appeared to be satisfactory were 1004.21 "Handling of Procedures," Rev. 1, May 17, 1977 and 1005.07 "Plant Safety Committee Procedure Review Guidelines," Rev. 1, October 28, 1975. In addition, the charter for the Safety Review Committee was reviewed.

No items of noncompliance of deviations were identified.

13. Test and Measurement Equipment

The inspector reviewed the controls which have been established for measurement and test equipment. The licensee has controls in place which assigns responsibility for assigning calibration frequency, maintaining an equipment inventory list, marking calibration status on test equipment, assuring that equipment is calibrated on or before the date required, assuring that personnel do not use test and measurement equipment which has not been properly calibrated, evaluating acceptability of items previously calibrated by a piece of equipment which is found to be out of calibration, and assuring that new test and measurement equipment is properly handled.

Implementation of these controls was verified by examining the system presently in use for Unit 1 test and measurement equipment.

No items of noncompliance or deviations were identified.

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14. Status of Preoperational Test Program

Since the previous inspection (May 3-6, 1977) the licensee had completed no preoperational tests. Twelve additional preoperational test procedures had been approved for execution since that time.

15. Plant Procedures

The inspector examined selected Unit 2 procedures to determine: (a) that their review, approval and updating had been completed in accordance with the administrative controls specified in QC Procedure (QCP) 1004.21; (b) that the issuance of new procedures and control of superseded copies had been in accordance with QCP 1004.21; and (c) that the working copy and control room files contain the current approved revision. During the above examination, the inspector noted four approved procedures that were incomplete in the sense that certain performance data such as pressure, flows, vibration limits, etc., were missing. In general, this data will not be available until the completion of the startup system test. QCP 1004.21 provides that the Plant Safety Committee (PSC) will decide whether or not such approved procedures should be included on the PSC punch list depending on the significance of the missing data. Operating procedure 2104.03 was the only one of the four procedures included on the punch list. The inspector discussed the issue with the Chairman of the PSC. As a result, the Chairman has indicated that the remaining procedures will be added to the punch list and that the master file would be reviewed to update the punch list as necessary. This item will remain open pending the completion of the licensee's action.

The issuance of new procedures and control of the superseded copies was verified in only one case since only one procedure had been revised to date.

With the following exceptions, the working copy and control room copy file contained the required revised procedure in the master copy file. Procedure 1005.02 and 1602.01 were not as yet in the control room file. This item will be an open item pending the completion of procedure distribution.

16. Operating Procedures

The inspector examined the index to Unit 2 plant operating procedures to determine its completeness with respect to Regulatory Guide 1.33 and Chapter 13 of the FSAR. The only finding in this area was that an operating procedure for communications systems was not planned as committed to in Chapter 13 of the FSAR. The licensee indicated that this will be corrected. This is an open item pending the licensee's action.

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A detailed review of selected operating procedures was conducted to determine that the format and technical content of the procedures conformed to the guidance of ANSI 18.7 and the licensee's procedures. The inspector had no questions in this area of review.

The inspector found that the licensee had not yet issued all of the operating emergency and maintenance procedures listed on the above procedure index. The inspector noted that in Section 13.5.2 of the Unit 2 FSAR, the licensee states, "Detailed written procedures, covering operating and maintenance procedures listed below, shall be prepared approximately 5 months prior to initial fuel load and approved as specified in Section 13.5.3."

Since the licensee's scheduled fuel load is during the week of October 17, his failure to have issued all of the above procedures at the time of this inspection is an apparent deviation from the above FSAR commitment. The licensee's Plant Superintendent acknowledged the fact that they had not met their FSAR commitment. He indicated that a major staff effort is ongoing to complete these procedures. The Plant Superintendent has made a formal commitment to issue all of the plant procedures by July 30, 1977. The Plant Superintendent said that he would provide the inspector with copies of the procedures as they are issued, which will facilitate the inspector's review of same. The inspector acknowledged the above commitments and stated that a formal response would not be required for this deviation.

17. Emergency Procedures

The inspector reviewed the index of Unit 2 plant procedures to determine that the requirements of RG 1.33 and Chapter 13 of the FSAR had been met. There were no questions in this area. Following the completion of emergency procedures approval, a more detailed review of selected procedures will be conducted.

18. Maintenance Procedures

The inspector reviewed the index to Unit 2 plant procedures to determine that applicable portions of RG 1.33 and Chapter 13 of the FSAR had been satisfied. A NSSS Hydro Test as required by RG 1.33 was not in evidence on the index to plant procedures. The licensee indicated that this procedure will be added to the index. This will remain as an open item pending the licensee's action. No further questions were identified in this area. Upon completion of PSC approval of all maintenance procedures a more detailed review of selected procedures will be conducted.

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19. Precritical Test Procedure Verification

The inspector reviewed the Unit 2 Startup Test Procedure (STP) file to determine that the licensee had approved procedures for the precritical tests referenced in Chapter 14 of the FSAR and in RG 1.68. Based on the index to the STP file, the licensee appears to have met the required test commitments. Further investigative efforts will be required as the remaining test drafts are submitted to the licensee by Bechtel and Combustion Engineering and as the reviewed drafts are approved.

20. Cable Termination Problem

Prior to this inspection, the inspector was made aware of a cable termination problem on Unit 2 valve 2CV-5038-1. The cable terminations did not agree with the appropriate drawings and the three drawings related to this cable run were not in agreement. The inspector discussed this problem with licensee and contractor representatives to determine the actions to be taken to correct the problem and the measures which are taken to correct the problem and the measures which are taken to assure that other such discrepancies are identified and corrected. The licensee had not yet completed the corrective action for the above item and this matter will remain open until it is reviewed by the inspector during a subsequent inspection.

21. Followup on Previously Identified Open Items

a. Cable Separation in Battery Charger 2D34

During inspection 77-07, the inspector identified a potential problem in the separation of the safety related cabeling within battery charger 2D34. During this inspection, the licensee presented the inspector with an evaluation of the separation issue which was made by the licensee's engineering organization. This report argued that there existed no requirement for the separation of the subject cables. The inspector said that he would forward this information to the Region IV Construction and Engineering Support Branch for resolution. This item remains open.

b. Safeguards Pump Controls

During inspection 77-09, the inspector discovered an apparent design problem in the control circuits of the engineered safeguards pumps. During this inspection the inspector found that the licensee had identified this problem in February 1977 and had documented it in Startup Field Report (SFR) No. 235.

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The licensee and his AE have decided that the control circuit should not be modified. They feel that it would be preferable to incorporate into the procedure for the applicable pump operation a requirement to jumper the interlock contacts in the control circuit. This item will remain open until the licensee has finally resolved this issue.

22. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. The unresolved items identified in this inspection are listed below.

Number		Paragraph
7711-1	Response to QA Audits	4
7711-2	Annual Review of Procedures	5
7711-3	Drawing Change Documentation	5
7711-4	Preventive Maintenance Program	6
7711-5	Ignition Source Control Procedures	6
7711-6	Master Surveillance Test Schedule	8
7711-7	Qualification of Vendors	9
7711-8	Procedure for Shipping Parts	9
7711-9	Procedure for Vendor Appraisal	9
7711-10	Procedure for Verifying Records	11

23. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the ANO site and again at the Little Rock Corporate Offices on June 2 and June 3, 1977, respectively. The inspector summarized the purpose and the scope of the inspection. The findings, as detailed above, were discussed with the licensee representatives.