

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-315/84-16(DRS); 50-316/84-18(DRS)

Docket Nos. 50-315; 50-316

Licenses No. DPR-58; DPR-74

Licensee: American Electric Power Service
Corporation
1 Riverside Plaza
Columbus, OH 43216

Facility Name: Donald C. Cook Nuclear Power Station, Units 1 and 2

Inspection At: Donald C. Cook Station, Bridgeman, MI and American Electric
Power Corporate Headquarters, Columbus, OH

Inspection Conducted: August 7-17, 21-24 and October 17-18, 1984

Inspectors: *M. Walker*
H. A. Walker 10-25-84
Date

M. Smeenge
R. J. Smeenge 11-25-84
Date

T. E. Vandell
T. E. Vandell 10-25-84
Date

Approved By: *M. Hawkins*
F. C. Hawkins, Chief 10-25-84
Quality Assurance Programs Section Date

Inspection Summary

Inspection on August 7-17, 21-24, and October 17-18, 1984 (Reports
No. 50-315/84-16(DRS); 50-316/84-18(DRS))

Areas Inspected: Routine, unannounced inspection by three regional inspectors of licensee action on previous inspection findings; QA/QC administration; audit program; design change and modification program; design change and modification implementation; maintenance; procurement control; receipt, storage and handling of equipment and material; test and measurement equipment; surveillance testing and calibration control; and document control. The inspection involved a total of 159 inspector-hours onsite and 55 inspector-hours at corporate headquarters.
Results: Of the eleven areas inspected, no items of noncompliance or deviations were identified in nine areas; two items of noncompliance were identified in the remaining two areas (failure to provide prompt and effective corrective action - Section I, 1.b.(2), 2.b.(1), and 2.b.(2) and failure to follow documented procedures - Section III, 5.b).

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DETAILS

Persons Contacted

Indiana and Michigan Electric Company (I&MECo)

E. Abshayer, Assistant Planning Superintendent
*A. A. Blind, Technical Engineering Superintendent
G. Caple, Q/C Supervisor
K. Chapman, Performance Engineering Supervisor
P. Criteaux, Design Change Supervisor
*R. L. Dudding, Maintenance Superintendent
*G. W. Griffin, QC Engineer
*P. F. Helms, Instrument Supervisor
D. Krause, Engineer - Operations
T. Lemon, Document Center Supervisor
M. Lester, Performance Engineer
*C. E. Miles, C&I Section Head
*R. L. Otte, ISI Supervisor
R. Piehl, Administrative Compliance Coordinator
*W. G. Smith, Jr., Plant Manager
R. Stephens, ISI Coordinator
B. Svensson, Plant Manager - Operations
*M. Thornburg, I&C Supervisor
E. Townley, Assistant Plant Manager
*J. W. Veach, Stores Supervisor
F. Wenman, Maintenance Production Supervisor
*M. R. Wiederwax, Q/C Supervisor
*N. C. Williams, Planning Superintendent
D. Yount, Accounting Supervisor

American Electric Power Service Corporation (AEPSC)

**M. P. Alexich, Vice President, Nuclear Engineering
J. Anderson, Engineer, EED
**P. A. Barrett, Senior Licensing Engineer
*T. P. Beilman, Quality Assurance Supervisor
**J. B. Brittan, Section Manager Audits/Procurement
R. Carruth, Manager, Generation
S. Horowitz, Assistant Division Manager, Generation and Telecommunications Engineering
T. King, Staff Engineer, Electric Power Plants
J. Kobgra, Project Engineer, MED
**R. F. Kroeger, Manager of Quality Assurance
P. Krugh, Senior Engineer, Electrical Engineering Department
T. Kwiatkowsk, QA Coordinator, Design Division
M. Marrocca, Assistant Section Manager, Piping and Valves
B. Rederstorff, Assistant Manager, Turbine Section, MED
D. Shaller, Staff Engineer, Nuclear Engineering Department
B. Sweeney, Section Manager, QA Engineering
A. Volk, Senior Engineer, Electric Generation Section

USNRC

*E. R. Swanson, Senior Resident Inspector, Region III

Other personnel were contacted as a matter of routine during the inspection.

*Indicates those attending the exit meeting on August 17, 1984 at the D. C. Cook Station.

**Indicates those attending the exit meeting at the American Electric Power Service Corporation corporate offices on August 24, 1984.

Licensee Action on Previous Inspection Findings

- a. (Closed) Noncompliance (315/83-07-01(A); 316/83-08-01(A)): Record storage procedures did not provide a description of the master plant file vault or controls for filing supplemental records. The inspector reviewed procedure 12-OAP-2040.MPF.004 and PMI-2130 and determined that they had been revised to include the required information and controls.
- b. (Closed) Noncompliance (315/83-07-01(B); 316/83-08-01(B)): The door to the master plant file vault had a one and one-half hour fire rating and there were unsealed conduit penetrations in the vault which resulted in less than the required two hour fire rating. The inspector determined that the door to the master plant file vault had been replaced with a three hour fire rated door and that the conduit penetrations had been sealed.
- c. (Closed) Open Item (315/83-07-02; 316/83-08-02): Fire hazard material (open boxes containing miscellaneous paper debris) was stored in the record storage vault. The inspector toured the master file vault and found no paper or other combustible debris.
- d. (Closed) Unresolved Item (315/83-07-03; 316/83-08-03): Review of the storage vault fire rating and complete work to upgrade the fire rating of the vault. The licensee had completed a review of the fire rating of the vault to verify compliance with applicable requirements. In addition to changing the vault door and sealing conduit penetrations as noted in paragraph b. above, dampers with three hour fire rating and thermal link closing mechanisms had been installed in the ventilation ducts.

Program Areas Inspected

Details of the program areas inspected are documented in Sections I, II and III of this report.

Section I

Prepared By: H. A. Walker

1. QA/QC Administration

The administration of the D. C. Cook QA/QC program was reviewed to verify compliance with regulatory requirements and operational QA program commitments. The inspection was performed by reviewing applicable procedures and records and conducting personnel interviews.

a. Documents Reviewed

- (1) PMI-2010, Revision 8, "Plant Manager and Department Head Instructions, Procedures and Associated Indexes"
- (2) PMI-7010, Revision 2, "Plant Operations Quality Assurance Program"
- (3) PMI-7020, Revision 4, "AEPSC Site Quality Assurance"
- (4) PMI-7090, Revision 0, "Plant Quality Control Program"
- (5) QHI-2030, Revision 0, "Quality Assurance Document Control"
- (6) QHI-2070, Revision 1, "Training"

b. Results of Inspection

- (1) During the review of QC procedures, the inspector noted that after the QA audit section had been transferred to the AEPSC quality assurance department, the QC procedures had not been revised to reflect the appropriate organizational responsibilities. AEPSC personnel stated that the updating of these procedures was a part of the Regulatory Performance Improvement Program which had been approved by NRC Region III. The inspector was provided a copy of page C-23 of this document which stated that, "QC procedure reviews to reflect current QC alignment to start by February 15, 1984. Reviews to be completed by July 11, 1984. Revisions to be completed by December 1, 1985." This item is unresolved pending review of the revised QC procedures (315/84-16-01; 316/84-18-01).
- (2) During discussions with quality control personnel, the inspector determined that there was no procedure or documented program which addressed certification of QC inspectors. This item had been identified previously by the resident inspector in August, 1983 (315/83-12-03; 316/83-13-02). The licensee's response to the finding, dated September 6, 1983, stated that, "full compliance is expected to be achieved by February, 1984". The specified corrective action had not been completed at the time of this inspection. This failure to take timely corrective action with regard to the establishment and implementation of a QC inspector qualification program is considered to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion XVI (351/84-16-02A; 316/84-18-02A).

2. Audit Program

The D. C. Cook QA audit program was reviewed to verify compliance with regulatory requirements and QA program commitments. Audits of D. C. Cook plant operations which were conducted by the AEPSC onsite quality assurance organization were reviewed.

a. Documents Reviewed

(1) Procedures

- (a) AEPSC General Procedure No. 18.0, Revision 1, "Audits"
- (b) AEPSC General Procedure No. 18.1, Revision 1, "AEPSC-QA Internal Audit Program"
- (c) QAP 19, Revision 6, "Quality Assurance Department Audits"
- (d) QAP 21, Revision 4, "Qualification and Certification of QA Personnel"

(2) Audit schedules for 1983 and 1984

(3) Selected audit records

(4) Report of overdue AEPSC Quality Assurance Report Responses

b. Results of Inspection

The inspector reviewed audit schedules for 1984, selected audit records, and the audit findings/observations follow-up and closeout system. Eight audit record packages were reviewed during the inspection. Each package which was reviewed included audit plans, checklists, reports, findings, and related correspondence. The results were thorough and well documented.

Observations made during the review were as follows:

- (1) Paragraph 6.2.2.B of AEPSC General Procedure No. 18.1 required that the audited organization respond to audit findings/observations (corrective action requests) within thirty days of the audit report issue date. The inspector noted that these responses were consistently submitted late. For example, the responses to Corrective Action Requests (CARs) 02, 03, 05, 06, 07 and 09 for audit QA-84-02 were each submitted approximately three months late. Additionally, the responses to CAR No.s 01 and 04 had not been received at the time of this inspection although they were due March 16, 1984. No extension of the due dates had been granted.

The August 9, 1984 QA department report of overdue CARs listed 61 overdue responses to CARs. The AEPSC quality assurance department was aware of the problem and had been attempting to resolve the issue for the past several months without success. This failure to ensure that conditions adverse to quality are

promptly identified and corrected is considered to be a further example of noncompliance with 10 CFR 50, Appendix B, Criterion XVI (315/84-16-02B; 316/84-18-02B).

- (2) The inspector reviewed the records for audit QA-84-06. The records indicated that during the audit, the AEPSC auditor identified that a procedure had not been followed during the Unit 1 refueling outage in 1983. Specifically, the refueling crane limit switches had not been tested as required by the Westinghouse refueling procedure. The audit report did not identify, as a formal audit finding, the fact that the Westinghouse procedure was not followed. Identification of this issue as an audit finding would have ensured proper and complete corrective action. This failure to ensure that conditions adverse to quality are identified and corrected is considered to be a further example of noncompliance with 10 CFR 50, Appendix B, Criterion XVI (315/84-16-02C; 316/84-18-02C).
- (3) During the review of the audit program, the inspector noted that the monthly overdue audit responses reports had not been issued for June and July, 1984. Further review indicated that follow-up action on overdue audit responses was being taken through other channels. This item is unresolved pending review of future monthly reports (315/84-16-03; 316/84-18-03).
- (4) The inspector reviewed the records for audits QA-84-12 and QA-84-14, conducted on May 31, 1984 and July 11, 1984, respectively. The results of both audits were presented during a combined exit meeting held on August 3, 1984. Licensee personnel stated that the conduct of combined exit meetings was a standard approach used by AEPSC. The inspector expressed concern regarding the timeliness of the exit meeting for audit QA-84-12 and was informed that there had been specific problems which contributed to the delay. Pending further review of exit meeting timeliness, this item is considered unresolved (315/84-16-04; 316/84-18-04).

Section II

Prepared By: T. E. Vandell

1. Design Change and Modification Program

A review was conducted of the licensee's program for design changes and modifications to determine compliance with the licensee QA program and Technical Specifications, 10 CFR 50, Appendix B, Criterion III, and ANSI N45.2.11-1974, Sections 6 and 8.

a. Documents Reviewed

- (1) Indiana & Michigan (I&M) Plant Manager Instruction (PMI) 5040, "Design Changes," Revision 5
- (2) American Electric Power Service Corporation (AEPSC) General Procedure (GP) No. 3.0, "Design Control," Revision 1
- (3) AEPSC General Procedure No. 25, "Design Changes," Revision 2
- (4) AEPSC Mechanical Engineering Division (MED) Procedure No. 8, "Calculations," Revision 3
- (5) AEPSC MED Procedure No. 10, "Design Control," Revision 3
- (6) AEPSC Electrical Engineering Division (EED) Procedure No. 3.0, "Design Control" Revision 1
- (7) AEPSC General Procedure No. 28, "Change Control Board,"
- (8) PMI-2140, "Temporary Modifications," Unapproved Revision 5
- (9) PMI-2140, "Bypass of Safety Function," Revision 4

b. Review Results

- (1) The inspector noted that I&M procedure PMI 5040, Revision 5, Section 1 ("RFC Preparation, Review and Approval") failed to require that RFC's (Request For Change) be forwarded to the AEPSC for approvals by the offsite safety committee, the change control board and the design engineering department. During a subsequent visit, the inspector reviewed an approved Procedure Change Sheet (Change No. 7) to PMI 5040. The change sheet provided appropriate instructions which will be incorporated into revision 6 of the procedure, planned for early November.
- (2) AEPSC General Procedure No. 25 revision 2 provided the general guidance to comply with the ANSI N45.2.11-1974 standard. Each engineering division had developed their own subtier procedure which provided more specific direction for the initiation and processing of RFCs. Review of recent revisions to these procedures indicated that they were appropriately detailed to implement the design change and modification program.
- (3) PMI procedure 2140, both the approved revision 4 and the unapproved revision 5, were reviewed. It was established that the new procedure (revision 5) adds provisions for safety evaluation of modifications in accordance with Section 6 of

the Technical Specifications and 10 CFR 50.59. Licensee representatives indicated that approval and issuance of this procedure is expected within two weeks. This is an open item for future review. (315/84-16-05; 316/84-18-05).

No items of noncompliance or deviations were identified.

2. Design Change and Modification Program Implementation

The inspector reviewed the implementation of the design change and modification program at the site and at the AEPSC corporate office to ascertain whether the licensee is implementing a QA program relating to the Control of Design Changes and Modifications that is in conformance with regulatory requirements, commitments in the application and industry guides or standards.

a. Site Implementation

A planning department has been recently established to act as the site focal point for the planning, coordination, and control of RFC modifications. Discussions with the planning superintendent and the design change supervisor determined that the planning department was responsible for the following activities:

- (1) write job orders for all RFC work and issue to the maintenance or technical departments
- (2) preparation of RFC work packages
- (3) request document control to issue drawings
- (4) perform pre-production walkdowns
- (5) follow progress of modification work
- (6) coordination of the informal engineering review and approval of emergency RFC's
- (7) perform post-installation as built inspections
- (8) coordination of testing work

RFC package (DC-21-2651) currently in modification status was selected for review of design change control. Package documents reviewed included:

- (1) Drawing No. C01-5142-21
- (2) Revision 21 revision sheets
- (3) Valve identification list
- (4) Piping Isometric Drawing 2-SI-534

No problem areas were identified as a result of the review.

b. AEPSC Implementation

RFC control was provided by General Procedure No. 25 and each of the engineering departments own subtier procedures. The NRC Inspector selected the following Emergency RFC's for routine review:

- (1) RFC 01-1940 "Additional source range detector installation"
- (2) RFC 01-1973 "Temporary modification to turbine driven auxiliary feed pump trip and throttle valve"
- (3) RFC-DC-12-1983 "Barton transmitter modification of temperature compensation"

No completed RFC package review had been performed by engineering on the above packages, however the expedited informal review and approval was appropriate and timely (except for one instance which had been identified by the licensee). Of the above items, two were initiated by AEPSC and one was initiated at the site.

The inspector visited the offices of the MED and EED to observe current activities, review documents in process, and to interview personnel.

Examples of documentation reviewed included:

- (a) RFC-DC-D2-2683 "Unit 2 Local Shutdown Instrument Panel alternate power supply" (EED)
- (b) RFC-D1-2722 "Equalizing line to relieve trapped water in valve closing mechanism" (MED)
- (c) Letter being generated by MED to approve an Emergency RFC (No. 1990) to be transmitted to the plant that day.

No items of noncompliance or deviations were identified.

3. Maintenance

a. Documents Reviewed

(1) Procedures

- (a) PMI 6010, "Radiation Monitoring and Protection", Revision 2
- (b) PMI 7030, "Condition Reports", Revision 6
- (c) PMI 2110, "Clearance Permit System", Revision 8
- (d) PMI 2220, "Rework Clearance Permit System", Revision 1
- (e) PMI 2290, "Job Orders", Revision 4
- (f) PMI 6030, "Instrument Maintenance and Calibration Procedures", Revision 2
- (g) PMI 5020, "Maintenance and Repair Work", Revision 2
- (h) PMI 5030, "Preventive Maintenance", Revision 3
- (i) PMI 5040, "Design Changes", Revision 5
- (j) PMI 2170, "Plant Accounting", Revision 2
- (k) PMI 2010, "Plant Manager", Revision 8
- (l) PMI 2030, "Control of Information Sources", Revision 3
- (m) 12 MHP 5021.082.017 "Overcurrent Testing of Molded Case Circuit Breakers", Revision 1
- (n) 12 MHP 5021.001.001, "Filler Replacement by Transfer Cask", Revision 1
- (o) 12 MHP 4030-STP-028, "Maintenance Inspection of Fire Dampers for Safety Related Areas", Revision 1

(2) Selected maintenance job orders

b. Results of Inspection

Maintenance activities for safety-related systems and components were reviewed to verify compliance with approved procedures, regulatory guides, industry codes and standards, and the Technical Specifications. Seventeen job orders for maintenance activities were reviewed.

During the review of job order 17859, the inspector identified four maintenance tasks which did not appear to have been completed before the job order was closed. Further review revealed that three of the four tasks had been specified and completed on other procedures. There was no indication that the fourth task had been completed. As a result, the inspector is concerned if (1) the assignment of organizations to perform maintenance work is adequate to ensure completion of all work and (2) the followup review, to verify completion and closeout of the activity, is adequate to ensure that all tasks have been completed.

Licensee personnel stated that procedure PMI 2290 was being revised and that the concerns would be addressed. This is an unresolved item pending further review during a subsequent inspection (315/84-16-06; 316/84-18-06).

The inspector reviewed the status of job orders for a two month period (June 14-August 14, 1984). The review determined that, of the 2,071 job orders for that period, 662 remained open.

Additionally, a review of outstanding job orders for the Control and Instrument (C&I) Department indicated that the backlog of open job orders had been reduced from 970 to 491.

No items of noncompliance or deviations were identified.

4. Confirmatory Action Letter Followup

During an inspection conducted in June and October of 1983, the licensee was cited for (1) failure to perform independent design verifications and (2) inadequate design verification procedures. As a result, this item of noncompliance (315/83-19-09; 316/83-19-01) was included in a Confirmatory Action Letter (CAL) issued in November 1983. Section C of the CAL required that (1) D.C. Cook engineering design procedures clearly reference and implement the requirements of ANSI N45.2.11-1974 and (2) conduct a review of past design activities for which inadequate design verification was involved.

The licensee issued a response to the CAL on January 20, 1984. The letter committed to (1) revise General Procedure No. 25 to incorporate ANSI N45.2.11-1974 design verification requirements, (2) perform a review, on a random sampling basis, of design changes utilizing the design verification criteria set forth in the revised General Procedure No. 25, and (3) prepare a description of the original design activities with the objective of assessing the documented design verification effectiveness and design adequacy. An additional commitment was made to select and assess some of

the original designs in the electrical, mechanical and structural disciplines against the revised General Procedure No. 25. However, this additional commitment was amended by the licensee on August 20, 1984. The amended commitment did not include a commitment to review the original design practices against the revised Procedure No. 25.

Followup on this matter involved a review of the original design practices, as well as the action taken on the cited problems. The following two sections document the results of that review:

a. Original Design Practices

(1) Documents Reviewed

A review was conducted of documents relating to the basic design practices and verification of correctness which were in use during the original design of the plant. The following documents were reviewed:

- (a) "Description of Original Design Practices" (No date or revision)
- (b) Four memorandums for the Electrical Engineering Division (EED) (April and May, 1970)
- (c) Mechanical Engineering Division (MED) memorandums (May 20, October 30, 1969 and September 12, 1972)
- (d) MED drawing record of review and approval for flow diagrams, drawings 12-5138A, 12-5150, 1-5150, 12-5150A, and 1-5150A
- (e) MED checklist for the reactor coolant system flow diagram indicating completion of review (December 23, 1969)
- (f) Review and approval record sheets originated in 1969, for drawings 1-2-5128, 1-5128, 2-5128, 1-2-5128A and 1-5128A.
- (g) MED design review committee minutes covering review activities for drawing 12-5146 (June 23, 1970)

(2) Discussion with Engineering

Discussions were held with staff members from each engineering division (Mechanical Engineering Division (MED), Electrical Engineering Division (EED), and the Design Division (DD)) to discuss the basic process used to achieve a design and to verify its correctness.

Memoranda generated for MED and EED during the 1969-1971 period were used as instruction procedures for design and review activities. These memoranda were later converted into formal procedures in 1974 with a few others being developed as late as

1980. An example of a procedure prepared in 1974 and included in the organization and procedures book, was Procedure Number 6, ("Procedures and Approvals"). It provided for the development of design source document drawings (i.e., One-line diagrams and elementary diagrams). Review and checking verification was routinely performed, including supervisor review.

The Design Division (DD) also originally performed their work using memorandums for design and verification. The structural design section of DD even then formally developed calculations and reviews that were maintained in books. Design and verification procedures, developed in 1972 and early 1973, included procedures for calculations, drawing development, and use of consultants. All DD design sections had always utilized assigned checkers for checking design drawings. In addition, architect engineers and/or consultants were engaged to perform checks of drawings and systems on a scope of work basis.

(3) Conclusions

It must be recognized that the bulk of the original plant design development work was completed prior to the issuance of the ANSI N45.2.11 standard in 1974 and the basic design development preceded the issuance of 10 CFR 50 Appendix B in 1970.

The design and verification activities conducted during the original plant design development were consistent with generally accepted engineering practices for the time they were accomplished. Review and verification activities were performed in a manner considered to be good engineering practice.

b. Noncompliance Resolution

Review was conducted of the activities performed to address the resolution to noncompliance No. 315/83-18-09, 316/33-19-09 as follows:

- (1) (Open) Noncompliance (315/83-18-09(A); 316/83-19-09(A)):
"Failure to perform documented design verification."

This noncompliance item is related to items 2.a and 2.b of the licensee response to the NRC Confirmatory Action Letter. The status of these two items is as follows:

- (a) Item 2.a The licensee is currently performing the committed random sampling design verification of past design changes. This item remains open pending completion of their sampling review.
- (b) Item 2.b The licensee prepared "Description of Original Design Practices" has been formally submitted to the NRC Region III office and is currently under review. This item remains open pending completion of reviews.

- (2) (Closed) Noncompliance (315/83-18-09(B); 316/83-19-09(B)):
"Inadequate procedures to ensure that design verification met the requirements of ANSI Standard N45.2.11-1974."

The inspector reviewed the following design control procedures to verify incorporation of the design verification requirements.

- (a) AEPSC General Procedure (GP) No. 3, "Design Control", Revision 1
- (b) AEPSC General Procedure No. 25, "Design Changes", Revision 2
- (c) AEPSC Electrical Engineering Division (EED) Procedure No. 3, "Design Control", Revision 1
- (d) AEPSC Mechanical Engineering Division (MED) Procedure No. 8, "Calculations", Revision 3
- (e) AEPSC Mechanical Engineering Division Procedure No. 10, "Design Control", Revision 3

GP-3 included the design verification requirements of ANSI N45.2.11-1974 in the initial revision and, although the procedure has been revised once, those requirements continue to remain in effect in the current revision.

GP-25 was revised to incorporate the design verification requirements and to add Section C defining the function of authorized verifier. In addition, the inspector was informed of another revision currently in review that would (1) add a reference to procedure GP No. 3, (2) would uniformly apply the term "authorized verifier" throughout the document, and (3) add a paragraph in Section C utilizing the words from paragraph 4.4.3 of GP No. 3 limiting the role of a supervisor in performing verification.

EED Procedure No. 3 was revised adding three new sections covering design verification controls.

MED Procedure No. 8 included new provisions in Revision 3 for calculation review and independence of the reviewer.

MED Procedure No. 10, Revision 3 added design verification and review controls in Section 6.

These revisions to the procedures are considered adequate to resolve and close this noncompliance item.

No items of noncompliance or deviations were identified.

Section III

Prepared By: R. J. Smeenge

1. Procurement Control

The inspector reviewed the program to verify that the licensee had implemented a QA program related to the control of procurement activities for safety-related items that was in conformance with regulatory requirements and commitments. The following items were considered during this review: administrative controls for procurement of safety-related equipment and service, procurement documentation, supplier QA requirements, provisions of 10 CFR 21, and supplier selection and qualification.

a. Documents Reviewed

- (1) AEPSC General Procedure No. 4.0, "Procurement Control", Revision 0
- (2) DCC-EE-500QCN, "Packaging and Shipping of Electrical Equipment for D. C. Cook Nuclear Plant"
- (3) NED Procedure 12, "Procurement", Revision 2 (Nuclear Engineering)
- (4) MED Procedure 12, "Procurement", Revision 3 (Mechanical Engineering)
- (5) Electrical Generation QA and Procedure Manual Section 0.3.2.2, "Material Purchases"
- (6) Procedure No. 33, "Surveys and Audits", Revision 2
- (7) QAP 24, "Vendor Inprocess Surveillance", Revision 2
- (8) DCC-QA-101QCN, "Qualified Suppliers List", Revision 13

b. Results of Inspection

Purchasing for safety-related equipment and services to be used on the D. C. Cook plant is controlled from AEPSC in Columbus, Ohio, under administrative controls implemented by General Procedure No. 4. Each division within AEPSC (i.e., nuclear, mechanical and electrical engineering, and quality assurance) is then responsible for procedures development to implement the general procedure and initiation of purchase orders to be executed by the purchasing department. The engineering organization which initiated a purchase is responsible for performing design reviews and providing the technical information for purchase orders.

The purchasing department is responsible for selecting only those suppliers which are identified on the Qualified Suppliers List (QSL). The quality assurance (QA) department is responsible for preparation and maintenance of the QSL and approval of all suppliers on this list. QA maintains a file on each supplier on the QSL and performs documented reviews of each supplier annually to determine their status on the QSL. Requirements for QA supplier evaluation, qualification and recertifying are provided by procedure number 33 and DCC-QA-101QCN.

The inspector reviewed seven completed purchase orders at the D. C. Cook plant and four in process purchase orders at AEPSC. The purchase orders had been identified for use in safety-related equipment.

No items of noncompliance or deviations were identified.

2. Receipt, Storage and Handling of Equipment and Materials

The inspector reviewed the program to verify that administrative controls for the receipt of safety-related items, had been established in accordance with FSAR commitments and regulatory requirements. The following items were reviewed: written procedures for conducting receipt inspection, validity of vendor quality certifications, conformance to procurement document requirements, retention of receipt inspection records, designation of responsibilities, controls for acceptable/nonconforming/conditionally approved items, and storage of safety-related items.

a. Documents Reviewed

- (1) PMI-2271, "Control of Combustible Materials", Revision 2
- (2) PMI-3120, "Receipt Inspection of Class 1 Materials", Revision 3
- (3) PMI-3130, "Plant Stores Material, Storage and Handling Control", Revision 2
- (4) OAI-3121, "Receipt Inspection Standards", Revision 2
- (5) N12 OAP-3030 SMS.003, "Plant Stores Control of Shelf Life Items", Revision 0
- (6) N12 OAP-3120SRI.001, "Stores Receipt Inspection", Revision 0
- (7) N12 OAP-3130SMH.001, "Plant Stores Material Receiving Control", Revision 1
- (8) N12 OAP-3120, "Receipt Inspection of Class 1 Material", Revision 0
- (9) DCC-QA-101QCN, "Qualified Suppliers List", Revision 13

b. Results of Inspection

Plant Manager Instruction PMI-3120 establishes the administrative controls for the receipt inspection of materials received at the D. C. Cook Plant. Additionally, PMI-3120 provides instructions and designates the necessary authority to use items which are conditionally released. Procedure N12.OAP-3120SRI.001 provides the instructions to implement receipt inspection. Instruction OAI-3121 provides the standards.

Seven recently received safety-related procurements were reviewed from initial receipt through tagging and storage and transmittal of the data package to the records vault. One of the items received was dispositioned as a nonconforming item. This item was properly tagged and stored in a segregated area of the storeroom. All seven packages were received under certificates of compliance from vendors identified on the QSL. During the inspection at the AEPSC corporate offices, the QA audits and surveillances of these vendors were reviewed and found to be acceptable.

From the time an item is received until the item is released for use, it is maintained in a locked controlled access area. The storage areas were found to be well maintained and clean. All stainless steel hardware was provided protection to prevent contact with other steels. One of the seven items reviewed had been released for use. All others were identified in their designated storage area.

Items with a designated shelf life were marked to identify the date of receipt and the expiration of their shelf life. A computerized record was being maintained to monitor items with a designated shelf life so that these items could be removed from storage when their expiration date was exceeded.

No items of noncompliance or deviations were identified.

3. Test and Measurement Equipment

The inspector reviewed the program to verify that the licensee had implemented a program to control safety-related test and measurement equipment that is in conformance with regulatory requirements and industry standards.

a. Documents Reviewed

- (1) PMI-6030, "Instruments and Control; Maintenance and Calibration", Revision 3
- (2) PMI-5060, "Control of Special Tools and Measuring and Test Equipment", Revision 2
- (3) PMI-6030, "Condition Reports", Revision 6

b. Results of Inspection

The procedure used to implement the control of measuring and test equipment is PMI-6030. At the present time, Stone and Webster has been contracted to provide instructions and procedures for the standards lab which is responsible for calibration of equipment. These procedures are scheduled to be completed in November, 1984.

Presently, the test and measuring equipment is either calibrated against nationally recognized standards using the instructions in the equipment manufacturers manuals, returned to the manufacturer for recalibration, or sent to independent calibration labs for calibration. Permanent plant records for the measuring and test equipment are being properly retained.

The instrument calibration schedule is a computerized program maintained by the technical engineering instrument maintenance section. This schedule lists the test and measuring equipment, calibration/adjustment schedules and when calibration is due. Equipment due for calibration/adjustment is identified by a computer sort. The equipment identified is then removed from service so that calibration/adjustment can be performed. Prior to any calibration/adjustment the equipment is checked, and the as-found results recorded, for any out-of-calibration conditions. When required, a

documented evaluation is performed to establish the validity of previous inspection or test results and the acceptability of items previously inspected or tested using out-of-calibration equipment.

Appropriate calibration labels are attached to the instruments when practicable. If the size or function prevent the attachment of a label to the equipment, an identifying code is applied to reflect status.

A computer sort for calibration due in July was used to randomly select the records of 20 instruments which required calibration. All instruments had been removed from service on time and were calibrated or in the process of being calibrated. The records of eight instruments located in the instrument storeroom were reviewed for as-found calibration records, after calibration data, last calibration date and calibration due date. All were found to be satisfactory.

Because PMI-6030 had recently been revised and the instruction procedures will not be completed until November, program implementation could not be properly evaluated at the time of this inspection. This portion of the inspection will be deferred and remain an open item until after the instruction procedures become effective (315/84-16-07 and 316/84-18-07).

No items of noncompliance or deviations were identified.

4. Surveillance Testing and Calibration Control

The inspector reviewed the licensee's program for (1) control and evaluation of surveillance testing, calibration and inspection required by Section 4 of the Technical Specification, (2) inservice inspection and testing of pump and valves as required by 10 CFR 50.55a(g), and (3) calibration of safety-related instrumentation not specifically controlled by the Technical Specification. The inspection included a review of program implementation, the Master Schedule contents and updates, and test procedures.

a. Documents Reviewed

- (1) PMI-2010, "Plant Manager and Department Head Instructions, Procedures and Associated Indexes", Revision 8
- (2) PMI-2110, "Equipment Control-Clearance Permit System", Revision 8
- (3) PMI-2140, "Bypass of Safety Functions", Revision 4
- (4) PMI-4030, "Surveillance Testing", Revision 7
- (5) PMI-6040, "Engineering/Performance Test Procedures", Revision 1
- (6) PMI-7010, "Plant Operations Quality Assurance Program", Revision 2
- (7) PMI-7030, "Condition Reports", Revision 6
- (8) 1-OHP 4030.STP.005, "Emergency Core Cooling System Operability Test"
- (9) 1-OHP-4030.STP.030, "Operations Daily & Shift Surveillance Checks"

(10) 12 QAP 4030.STP.002 "Tech Spec Fire Door Visual Inspection",
Revision 0

b. Results of Inspection

PMI-4030 establishes the administrative controls and policies for surveillance testing to determine the operating status of critical systems, components and structures of the plant. Attachments to this procedure identifies the Unit 1 and Unit 2 Technical Specification surveillance requirements and the department responsible for conducting each of the surveillance tests. Each department is currently responsible for maintaining a master schedule for the surveillance testing for which they are responsible.

As part of the Regulatory Performance Improvement Program, a computerized plant site master schedule is being developed. Department heads are responsible for development and maintenance of surveillance test procedures for those tests performed by their department. The inspector reviewed the current schedules for Operations, Controls and Instrumentation, and Technical Physical Service and found them to be satisfactory. Each department provides the control rooms a Weekly Surveillance Test Schedule for surveillance tests which are scheduled to be conducted during the following week. Upon completion of a scheduled test, the performer signs and dates the schedule in the appropriate control room. Any test not completed will be shown as an open item until the test is satisfactorily completed. Operations department supervisory personnel review the Weekly Surveillance Test Schedule daily to determine if any of the incomplete surveillance tests affect unit operations.

PMI-4030 also provides instructions for revising the Master Surveillance Test Table, Technical Specification, and test procedures. The inspector reviewed the implementation of changes to the surveillance test schedules and test procedures resulting from Amendment 61 and 64 of the Unit 2 Technical Specification and Amendment 79 of the Unit 1 Technical Specification and determined them to be satisfactory.

When applicable, each department maintains a schedule for those items which are associated with safety-related systems or functions which are not required to be calibrated by the Technical Specifications.

No items of noncompliance or deviations were identified.

5. Document Control

The inspector verified that a quality assurance program relating to document control had been implemented and was in conformance with FSAR commitments and regulatory requirements. The inspector reviewed administrative controls for timely distribution of as-built documents, control of obsolete documents, and maintenance of a master index.

a. Documents Reviewed

- (1) PMI-2030, "Control of Information Resources (Document Control)", Revision 3
- (2) PMI-2050, "Information and Records Center", Revision 2
- (3) 12 AHP-2030 DCR.001, "Document Issue Records", Revision 3

b. Results of Inspection

Plant Management Instruction PMI-2030 establishes the administrative controls for the plant information resources system. The Information and Records Section is responsible for maintenance and distribution of the Master File Index, Master Drawing Index and a Master Index of Instructions and Procedures. This section also maintains a controlled distribution list and issues current revisions to the plant documents to those individuals and departments identified on the list.

The indexes are updated with each document revision. Distribution to the areas identified on the controlled distribution list has a "Document Issue Record" (DIR) cover sheet which is signed and returned to the Information and Records Section to indicate receipt of the new document or revision, and to provide verification that the superseded document has been destroyed.

The inspector selected 10 documents which were recently distributed and the receipts returned. These documents were then reviewed in the areas where they were transmitted and their current status as identified in the master index was verified. Two areas of concern were identified in this review.

The first area was the technical support file. Two documents, OP-1-5135A (Revision 11) and OP-2-98289 (Revision 1), were not the current revision, even though the receipt indicated the current revision had been received and the obsolete revision destroyed. Further review determined that up to the week prior to this inspection, when the Operations Department received the DIRs and associated documents from the Information and Records Section (IRS), they would sign and return the DIR. A department DIR would then be issued to provide record of distribution to the many files under their control. The current revisions of the two documents were found with several other documents waiting to be filed. All of the documents were immediately filed. On August 8, 1984 the licensee issued a memorandum identifying that the department DIR would no longer be used. The IRS DIR was now to be held until all the files under the control of the Operations Department were updated.

The second area of concern was the file in the Controls and Instrument Section. The inspector found a file of aperture cards where all revisions of every document were being maintained. The current revision of the document being reviewed was Revision 12. Revision 11 was in the file with no indication that it had been "cancelled", "voided" or "superseded". A random review of this file found that a majority of the obsoleted revisions of documents were marked

"cancelled" or "voided". As in the case of the document under review, a significant number of obsolete aperture cards had no marking to signify the document was obsolete. This file cabinet was located in a limited access room which is locked except during normal working hours and is used as a historical file during the review of Requests For Changes (RFCs). The licensee took immediate action to correct this concern. The complete file was reviewed and all obsolete revisions of documents were stamped "void". A sign stating, "documents contained within this room are not to be used for plant activities", was posted on the door to the room, two walls within the room and on the file.

These failures of the licensee to follow the procedures of 12AHP-2030DCR.001 regarding the filing of new and destruction of obsolete documents prior to returning the DIR is considered to be an item of noncompliance with 10 CFR 50, Appendix B, Criterion V (315/84-16-08; 316/84-18-08).

The action taken by the licensee to correct the first area of concern, even before the inspection identified the noncompliance, and the immediate action to correct the second area of concern should prevent recurrence. Consequently, no reply to these items of noncompliance is required and we have no further questions regarding this matter at this time.

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. Unresolved items disclosed during the inspection are discussed in Section I 1.b.(1), Section I 2.b.(3), Section I 2.b.(4) and Section II 3.b.

Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Section II 1.b.(3) and Section III 3.b.

Exit Interview

The inspectors met with licensee representatives (denoted in the Persons Contacted paragraph) at the D. C. Cook plant on August 17 and October 18, 1984 and summarized the purpose, scope and findings of the inspection. On August 24, 1984, the inspectors summarized the inspection for AEPSC representatives at the corporate offices in Columbus, Ohio.