U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-315/85026(DRS); No. 50-316/85026(DRS)

Docket Nos. 50-315; 50-316 Licenses No. DPR-58; DPR-74

Licensee: American Electric Power Service Corporation
Indiana & Michigan Power Company
1 Riverside Plaza
Columbus, OH 43216

Facility Name: D. C. Cook Nuclear Plant, Units 1 and 2

Inspection At: American Electric Power Service Corporation, Columbus, OH and D. C. Cook Site, Bridgman, MI

Inspection Conducted: September 4-20, 1985

Inspector: H. A. Walker — 10/15/85 Date

Approved By: F. C. Hawkins, Chief, Quality Assurance Programs Section — 10/16/85 Date

Inspection Summary

Inspection on September 4-20, 1985 (Reports No. 50-315/85026(DRS); No. 50-316/85026(DRS))

Areas Inspected: Announced inspection by one regional inspector of licensee action on previous inspection findings, design changes and modifications, quality assurance records, office support activities, and the audit program. The inspection involved a total of 52 inspector-hours onsite and 38 inspector-hours at the corporate headquarters in Columbus, Ohio.

Results: Of the five areas inspected, no violations or deviations were identified in three areas. Three violations were identified in the remaining two areas (failure to properly store special process records - Paragraph 2.d.; failure to provide proper corrective action - Paragraph 2.i.; and failure to provide adequate control over design changes and modifications - Paragraph 3.a.).

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DETAILS

1. Persons Contacted

American Electric Power Service Corporation (AEPSC)

**M. P. Alexich, Vice President Nuclear Operations
**T. O. Argonta, Manager, Generation Division
**P. A. Barrett, Senior Licensing Engineer
M. W. Evarts, Licensing Specialist
M. L. Horvath, Plant Quality Assurance Supervisor
**J. A. Kobyra, Project Engineer, Mechanical Engineering
**R. F. Kroeger, Manager of Quality Assurance
**V. A. Lepore, Manager, Design Division
**J. J. Markowity, Manager, Mechanical Engineering Division
D. W. McAlhany, Quality Assurance Engineer
*J. A. McElligott, Senior Quality Assurance Auditor
**S. H. Steinhart, Assistant Division Manager, Mechanical Engineering
**J. R. Stroyk, Vice President Engineering Administration
**K. J. Toth, Nuclear Safety and Licensing
**F. S. Van Pelt, Manager, Nuclear Operations Support

Indiana and Michigan Electric Company (I&MEC)

*E. A. Abshagen, Staff Engineer, Planning Department
*T. P. Beilman, Planning Superintendent
*A. A. Blind, Assistant Plant Manager
*G. H. Caple, QC/ACC Senior
L. S. Gibson, Technical Engineering Superintendent
*W. G. Smith, Jr., Plant Manager
*J. F. Stietzel, Quality Control Superintendent
*B. A. Svensson, Assistant Plant Manager, Operations
Dan Yourt, Accounting Superintendent

USNRC

**F. C. Hawkins, Chief, Quality Assurance Programs Section
J. K. Heller, Resident Inspector
*B. L. Jorgensen, Senior Resident Inspector

*Indicates those attending the exit meeting at D. C. Cook on September 12, 1985.
**Indicates those attending the exit meeting at AEPSC offices in Columbus, Ohio, on September 20, 1985.

2. Licensee Action on Previous Inspection Findings

a. (Open) Unresolved Item (315/83001-01; 316/83001-01): Independence of QA auditors. Review of selected audits performed by corporate quality assurance personnel revealed that the auditors were functioning independently. This item will remain open pending review of audit practices at the D. C. Cook facility.

b. (Closed) Violation (315/83018-04; 316/83019-04): Inadequate NSDRC audits of technical specification compliance. The inspector reviewed records of three NSDRC audits of technical specification compliance which were performed during the past year. Each audit adequately addressed technical specification requirements.

c. (Closed) Violation (315/83018-09A; 316/83019-09A): Design control procedures do not incorporate design verification requirements. This failure to perform independent design verifications and inadequate design verification procedures was included as a part of a Confirmatory Action Letter (CAL) issued in November 1983. In the response to the CAL, dated January 20, 1984, the licensee 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. The inspector reviewed action taken on these three commitments and made the following observations:

(1) The inspector reviewed Revision 4 of AEPSC General Procedure No. 25, "Design Changes." Section 9.0 of this procedure adequately addressed design verification requirements.

(2) The sampling review of previous design changes to GP-25 design verification requirements has now been completed. The inspector reviewed the reports on this activity, dated June 21, 1985, and August 19, 1985. Design verification was performed by the licensee on 52 design changes selected at random from a total of 421 changes. No significant problems were noted.

(3) The description of the original design activities for D. C. Cook has been included as a part of the D. C. Cook Regulatory Performance Improvement Program (RPIP). A description of these verification activities and a schedule for completion, was provided to the NRC on August 20, 1984, as an update to the RPIP.

Based on these actions the inspector considers this item closed.

d. (Closed) Unresolved Item (315/85003-02; 316/85003-02): No policy or guidelines for storage of radiographs and other film type records. Paragraph 3.20 of PMI 2040, Revision 5 ("Information Management") requires that special process records, such as radiographs and microfilm, be packaged and stored as recommended by the manufacturer of these materials. Licensee personnel were unable to identify the applicable manufacturer's storage recommendations, and as a result they were not cognizant of the proper storage to be afforded the special process records. Inspection of the records storage facility identified that some radiographs were being stored in stacks, contrary to standard industry practice. This failure to provide appropriate protection of special process records so as to ensure that evidence of the activity is maintained is in violation of 10 CFR 50, Appendix B, Criterion XVII (315/85026-01; 316/85026-01).

e. (Closed) Violation (315/85007-04D; 316/85007-04D): Items listed on the action item tracking system not completed as scheduled. The inspector reviewed the overdue items list, dated September 18, 1985, for the open items tracking system. It contained 31 overdue items, and only one item was overdue for more than one month. A noncompliance report had been issued by the licensee on this overdue item. Control in this area is adequate.

f. (Closed) Violation (315/85007-05B; 316/85007-05B): Failure to store NSDRC records at the D. C. Cook facility. The inspector selected a number of NSDRC documents, required to be located at D. C. Cook from the file index. All records were promptly retrieved. NSDRC records were included in a records index as required, and record storage practices met requirements.

g. (Closed) Open Item (315/85007-07; 316/85007-07): Inconsistencies in offsite review charters and procedures. The inspector reviewed the NSDRC charters and procedures. The documents had been revised to correct the inconsistencies.

h. (Open) Open Item (315/85007-08; 316/85007-08): Submittal of proposed technical specification changes prior to NSDRC approval. The inspector reviewed the revised wording of Paragraph 5, Enclosure IV-1 of the NSDRC Manual which addresses the submittal of proposed technical specification changes. The revised wording of the manual permits submittal of the proposed change to the NRC prior to NSDRC approval, but it also requires NSDRC approval prior to issuance of the change for use. Licensee personnel stated that in practice, it is the intent of the NSDRC to review the proposed changes either prior to NRC submittal or at the next scheduled NSDRC meeting. Pending verification of the licensee's actual practice, this matter remains open.

i. (Closed) Open Item (315/85007-09; 316/85007-09): Questionable condition report dispositions. Previously, the NRC inspector had identified concerns regarding the disposition of Condition Reports No. 12-12-83-1342 (January 19, 1984) and No. 2-04-84-493 (April 6, 1984). Both reports dealt with the installation of incorrect check valves, and the inspector was concerned that they had been closed without benefit

of appropriate corrective action. The Nuclear Safety and Design Review Committee (NSDRC), during their routine review of closed condition reports, had also noted the inadequate corrective action and was taking steps to correct it. The NSDRC's actions to address the issue were completed in March 1985, when the engineering department began action to revise the valve numbering system to provide different identification numbers for both types of check valves. The inspector was informed that this action was expected to be completed during December 1985.

Although the NSDRC's actions were essentially complete, they did not address interim action to be taken to ensure proper control of check valve installations during the intervening period before the proposed valve numbering system was fully implemented. This failure to ensure that conditions adverse to quality are promptly identified and corrected is in violation of 10 CFR 50, Appendix B, Criterion XVI (315/85026-02; 316/85026-02).

3. Quality Assurance Program Review

This report documents the second in a series of augmented inspections to assess the SALP quality assurance functional area which was assigned a Category 3 rating during the last SALP reporting period. During this inspection, activities were reviewed to verify compliance with regulatory requirements and quality assurance program commitments. Specifically, the programs and their implementation for design changes and modifications, quality assurance records, offsite support activities, and audits were reviewed. Special emphasis was given to areas which had been identified during previous NRC inspections in order to verify that effective action had been taken to resolve known problems. The inspection was performed by observing and reviewing work activities, conducting personnel interviews, and reviewing applicable procedures and records.

a. Design Changes and Modifications

(1) Inspection Results

The inspector reviewed the two procedures used to control design changes and modifications at D. C. Cook and AEPSC in Columbus: PMI 5040, Revision 6 ("Design Change Control Program") and GP-25, Revision 4 ("Design Changes"). The "Open Request for Change Status Report" and the "RDR/RFC Index" were also reviewed.

During that review the inspector identified numerous inprocess design changes in varying stages of completion which appeared to not be properly controlled to ensure timely completion of the required reviews, evaluations and other related activities. Specific observations included design change packages for which the (1) as-built drawings had not been reviewed to verify compatibility with design requirements, (2) as-built drawings had not been permanently updated, (3) documentation of verbal emergency design changes was not forwarded to AEPSC from D. C. Cook for extended periods of time, and (4) final review of the packages to verify their completeness had not been accomplished. Examples of the deficient design packages and the dates associated with their installation status are as follows:

RFC No.	Status	Date
12-1971	Complete	March 31, 1984
12-2166	Complete	July 22, 1980
02-2685	Complete	June 23, 1984
01-1982	Complete	June 22, 1984
12-1917	Complete	April 25, 1984
02-1918	Complete	July 6, 1984
12-2598	Complete	May 18, 1984
12-2128	Change Approved	January 3, 1978
12-2393	Change Approved	May 3, 1979
12-2427	Change Approved	December 17, 1981
12-2462	Change Approved	May 29, 1980
12-2465	Change Approved	September 16, 1981

These failures to provide appropriate control of activities associated with design changes and modifications is in violation of 10 CFR 50, Appendix B, Criterion II (315/85026-03; 316/85026-03).

Also during this review, the inspector noted that the plant system associated with RFC 12-2598 was designated ASME Class III on the engineering check sheet. Conversely, the system was designated as ASME Class II on the hydrostatic test data sheets. Further review and discussions with licensee personnel revealed that the system was Class II. The inspector is concerned that this system's misclassification may be indicative of a larger issue relative to the adequacy of similar technical reviews. Pending further review this matter is unresolved (315/85026-04; 316/85026-04).

(2) Observations/Recommendations

(a) The status of open RFCs is maintained at the D. C. Cook facility. There does not appear to be a systematic follow-up on RFC's to ensure their timely completion. Consideration should be given to establishing a system to status RFCs through all stages of their completion.

(b) All the engineering departments do not presently have a method by which they can track RFC packages within their organization. Consideration should be given to establishing such a system to ensure timely completion of their responsibilities.

(c) RFCs, for which work has been accomplished, appear to be generally regarded as low priority work by engineering. As a result, post-installation engineering reviews and any resulting changes are not always accomplished in a timely fashion. The relative importance of the engineering reviews should be recognized and appropriate action taken to ensure their timely completion.

b. Quality Assurance Records

The inspector reviewed PMI-2040, Revision 5 ("Information Management") which describes the methods used for control, storage and protection of quality assurance records. Except for the storage of special process records (Paragraph 2.d.), the procedure and its implementation were found to be acceptable.

c. Offsite Support Staff

Offsite support for D. C. Cook is provided by AEPSC. Offsite support activities include management engineering and design, offsite review, safety and licensing, and quality assurance. With the exception of the design change and modification weaknesses noted in Paragraph 3.a., the offsite support function was adequately staffed and their activities were found to be acceptable.

d. Audit Program

The AEPSC quality assurance audit program was reviewed to verify adequate coverage of design change and modification activities, and surveillance testing required by the technical specification.

Audits of design changes and modifications are conducted by two separate quality assurance organizations. The AEPSC site quality assurance organization at D. C. Cook is responsible for auditing the I&MEC organizations which perform design change and modification related activities. The AEPSC corporate quality assurance organization is responsible for auditing AEPSC activities which support the design change and modification program at the corporate offices in Columbus, Ohio.

During the review of the audit program the inspector identified a concern regarding audit by more than one organization of functional areas for which responsibility is shared by AEPSC and I&MEC. Specifically, the inspector is concerned that potentially poor interfaces and coordination of multi-organizational audits could lead to substandard audit results. Pending further review, this matter is considered unresolved (315/85026-05; 316/85026-05).

As a result of concerns identified during a previous NRC inspection of D. C. Cook surveillance activities, the inspector conducted a review of audit coverage of plant surveillance testing and calibration and noted that quality assurance and NSDRC audits of these activities are conducted at least twice yearly. The inspector reviewed records of three audits in this area and found the audits to be thorough. The audits are supplemented by QA surveillances which are conducted twice weekly on the surveillance testing and calibration program by D. C. Cook QA personnel. These surveillances are scheduled to cover approximately 15% of technical specification required surveillance testing and calibrations each year. Records of these surveillances indicate that they are thorough.

4. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violation or deviations. Unresolved items disclosed during this inspection are identified in Paragraph 3.a. and 3.d. of this report.

5. Exit Meeting

The inspector met with licensee representatives (denoted in Paragraph 1) at D. C. Cook on September 12, 1985, and at the AEPSC corporate offices in Columbus, Ohio on September 20, 1985. The purpose, scope and findings of the inspection were summarized. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector. The licensee did not identify any such documents or processes as proprietary.