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

DIVISION OF REACTOR PROGRAMS
PERFORMANCE APPRAISAL SECTION (PAS)

Report: 50-315/82-17, 50-316/82-17

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Licensee: American Electric Power Service Corporation

Indiana and Michigan Power Company

2 Broadway

New York, N.Y. 10004

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

Inspection at: D.C. Cook, Benton Harbor, Michigan

American Electric Power Service Corporation, New York, New York

Inspection Conducted: July 12-23 and August 2-6, 1982

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Inspection Summary:

Inspection on July 12-23 and August 2-6, 1982
(Report 50-315/82-17, 50-316/82-17)

Areas Inspected: A special, announced inspection was performed on the licensee's management controls over selected licensed activities. The inspection by five NRC inspectors involved 502 inspector-hours onsite and at the corporate offices.

Results: The licensee's management controls for six areas were examined, and conclusions were drawn in each area based on the observations presented in this report. The conclusions were presented as Category One, Category Two, or Category Three as follows:

Section 2, Committee Activities - Category Three
Section 3, Quality Assurance Audits - Category Three
Section 4, Design Changes and Modifications - Category Three
Section 5, Maintenance - Category Two
Section 6, Corrective Action Systems - Category One
Section 7, Procurement - Category One

Additionally, a number of observations were presented to the NRC Resident Inspector as potential enforcement findings for followup as appropriate. These observations were also discussed with the licensee during the meeting held on August 6, 1982.

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DETAILS

1. Inspection Scope and Objectives

The objective of the inspection was to evaluate the management control systems which have been established in support of licensed activities. The results will provide input to the NRC evaluation of licensees from a national perspective.

The inspection effort covered licensed activities in selected functional areas. In each of the functional areas the inspectors reviewed written policies, procedures, and instructions; interviewed selected personnel; observed activities; and reviewed selected records and documents to determine whether:

a. The licensee had written policies, procedures, or instructions to provide management controls in the subject area;

b. The policies, procedures, and instructions were adequate to assure compliance with the regulatory requirements;

c. The licensee personnel who had responsibilities in the subject areas were adequately qualified, trained, and retrained to perform their responsibilities;

d. The individuals assigned responsibilities in the subject area understood their responsibilities; and

e. The requirements of the subject area had been implemented and appropriately documented in accordance with management policy.

The specific findings in each area are presented as observations which the inspectors believe to be of sufficient significance to be considered in the subsequent evaluation of the licensee's performance. The observations include areas within the licensee's management controls that may not have specific regulatory requirements or guidance. These observations were the perceived weaknesses or strengths of the management controls in the areas reviewed and were the bases for drawing conclusions in each inspected functional area. The conclusions represent the team's evaluation of the licensee's management controls in each functional area. Each functional area was identified as having the attributes of one of the following Performance Categories:

Category One. Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is being achieved.

- Category Two. NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective such that satisfactory performance with respect to operational safety or construction is being achieved.

- Category Three. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used such that minimally satisfactory performance with respect to operational safety or construction is being achieved.

The Performance Categories defined above have been developed to meet the NRC's latest guidelines for evaluating each licensee under the Systematic Assessment of Licensee Performance (SALP). These categories have been published in the Federal Register.

Some observations may be potential enforcement findings. These observations were discussed with the licensee and were presented to the NRC Senior Resident Inspector. The followup of these items will be conducted by the NRC Regional Office.

2. Committee Activities

The objective of this portion of the inspection was to evaluate the adequacy of the licensee's management controls associated with the activities conducted by the Plant Nuclear Safety Review Committee (PNSRC) and the Nuclear Safety and Design Review Committee (NSDRC).

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) Plant Nuclear Safety Review Committee (PNSRC)

(1.1) The Technical Specifications (TS), PNSRC Charter, and PNSRC procedure (PMI-1040, revision 0) defined the policies, goals, objectives, and provided guidance for PNSRC activities.

The charter, in existence since January 1975, had been effectively superceded by PMI-1040, although never cancelled. Several of the committee members, including one of the Assistant Plant Managers were unaware of its existence. There were differences between the charter and PMI-1040 that require management attention if it remains the licensee's intention to keep the charter an active document. These differences included the distribution of minutes, "audits and follow-up recommendations," and reports on "the findings of all reviews of ... violations...."

(1.2) PMI-1040 was a comprehensive document that generally complimented the TS. There were some features, however, not contained in the procedure that would have served to make it even more effective:

(a) There were several facility procedures that described PNSRC responsibilities, but were not referenced in PMI-1040. Committee members interviewed were unsure as to which procedures or how many described PNSRC duties.

(b) There were no criteria established for the selection of alternates to ensure that an alternate could adequately serve in place of an appointed member. There was no requirement established to ensure that an alternate for the Chairman was also a full committee member.

(c) There were no guidelines on the use of alternates that included specifics on when an alternate could substitute for a member, and on the responsibility of each member to keep his or her alternate informed of committee activities.

(d) There was no designation of operating records to be reviewed by the committee.

(e) There were no requirements to review the following:

- NSDRC meeting minutes, reports, and correspondence.
- Facility operations and records to detect trends that would not be apparent to the day-to-day observer.
- Training and re-training programs for licensed and non-licensed facility staff members to periodically determine their adequacy and effectiveness.
- QA and NSDRC audit reports.
- NRC inspection reports, Bulletins, licensee responses to these, NRC Circulars, and NRC correspondence relative to the facility operation.

(f) There was no provision for handling dissenting opinions among committee members, such as minority reports or inclusion in the minutes of the dissent and reasons for it.

(g) There was no guidance on what constitutes an unreviewed safety question or on the application of 10 CFR 50.59.

(h) There was no provision for the handling of committee open items or for the tracking and follow-up activities on committee findings or recommendations.

(i) The use of consultants or specialists by the committee was not addressed.

(1.3) PMI-1040 contained several strengths:

(a) A Committee Secretary was designated, as were several of the Secretary's responsibilities.

(b) The use of "Special Meetings," as opposed to "Regularly Scheduled Meetings," was described.

(c) The use of subcommittees was described in detail. Chairmanship assignments for the two subcommittees, their responsibilities, and membership requirements for the subcommittees were defined.

(d) Specific instructions for the committee's review of procedures, design changes, proposed TS changes, and TS violations were described.

(e) Included in the procedure was a requirement that the QA Supervisor is responsible for periodically auditing the activities of the PNSRC.

(1.4) TS 6.5.1.7.b. requires the PNSRC to render written determinations with regard to whether certain of their review items constitute unreviewed safety questions. The review items include procedures and procedure changes, design changes, TS changes, and TS violations.

PMI-1040 elaborated on this requirement by stating that for TS violations the written determination would be documented in the meeting minutes.

Contrary to these requirements there were no unreviewed safety question determinations in writing made by the committee on TS violations.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

As far as the other review items, most committee members interviewed stated that the PNSRC endorsed the determinations made by other departments and authored no written determinations of their own, or in the case of procedure reviews and some design changes, authored a Review Checklist which made the determination. This checklist, however, did not adequately meet the intent of the requirement. Instructions for the checklist stated that no unreviewed safety question determination was required if the proposal was not safety related. This is contrary to 10 CFR 50.59 which requires that any change to the facility, as described in FSAR, be evaluated for an unreviewed safety question.

A further point, was that the checklist drew no obvious conclusion as to whether an unreviewed safety question was involved. The three 10 CFR 50.59 criteria for an unreviewed safety question were addressed, but a concluding statement did not appear on the form. This appeared significant due to the lack of understanding expressed by committee members on the subject of unreviewed safety questions and 10 CFR 50.59.

(1.5) The PNSRC's Subcommittee On Changes, whose responsibility it was to perform "all reviews of design changes" (PMI-1040) and present those to the PNSRC, did not appear to be meeting the intent of 10 CFR 50.59. In addition to the problems with the Review Checklist described in the previous observation, Plant Modifications (PMs) were passed through the subcommittee review process with no consideration for 10 CFR 50.59 application. PMs were segregated from other design changes as not safety related and therefore not requiring a 10 CFR 50.59 review. Once again, this is contrary to 10 CFR 50.59, which makes no distinction as to whether or not a change is safety related.

It appeared questionable as to whether or not the Subcommittee On Changes or the full committee was capable of meeting their TS and PMI-1040 responsibilities with regard to reviewing proposed design changes. The understanding of 10 CFR 50.59 by most committee members, including the Subcommittee Chairman, was weak. Most appeared uncertain as to the application of 10 CFR 50.59 and not thoroughly cognizant of the definition of an unreviewed safety question. At least one committee member and three alternates interviewed had never read or never heard of 10 CFR 50.59. Of the three alternates, one had never heard of the term "unreviewed safety question;" another believed it to be associated with Westinghouse (NSSS) notices; and a third thought it to be anything that had not been reviewed by the PNSRC.

(1.6) The lack of awareness by committee members and alternates extended beyond 10 CFR 50.59. Many were unaware of the purpose and activities of the PNSRC subcommittees. One member and two alternates volunteered that they had never heard of the Subcommittee On Changes. Most of those interviewed were unaware of the committee charter, and there were several who had never read PMI-1040. One alternate stated candidly that he had never been instructed to do so.

Several committee members and alternates were unaware of the PNSRC's TS responsibilities or how these were accomplished, such as TS 6.5.1.7.b, mentioned in observation (1.5), or TS 6.5.1.6.g, on detecting "potential safety hazards." Only one member interviewed understood that some TS violations are not reportable to the NRC.

The level of understanding of the committee's responsibilities (as stated in the TS and implementing procedures), the subcommittee functions, committee activities, and 10 CFR 50.59 was considered a significant weakness and indicated a need for a training and retraining program for all committee members and alternates.

PNSRC members were asked what objective assurance they had that the committee was meeting all of its TS and procedural commitments. Some were aware of an NSDRC audit of PNSRC activities performed in 1979; most were not. No one stated that they personally checked periodically to assure that all responsibilities were being kept. Nearly everyone expressed some feeling of personal "trust" that commitments were met. There was no evidence of any sense of personal accountability for the completion of all committee responsibilities among PNSRC members.

(1.7) Contrary to PMI-1040, QA had performed no audits of PNSRC activities. This was considered a significant weakness. The first audit of the PNSRC by QA was scheduled for 1983.

An NSDRC audit of PNSRC activities was performed in 1979. This audit concentrated on the mechanics of PNSRC functions, such as meeting frequency, quorum, and membership requirements, and failed to examine in detail whether the committee met all the TS review responsibilities.

(2) Nuclear Safety and Design Review Committee (NSDRC)

(2.1) The TS, NSDRC Charter (revision 6), and Procedures Manual (revision 6) defined the policies, goals, objectives, and provided guidance for NSDRC activities.

The charter and procedures were generally complementary to the TS with some significant exceptions.

(a) Titles of individuals listed in the charter and procedures differed from those in the TS. This was largely due to the TS not being up-to-date with organization changes.

More significantly, several of the positions to which one function or another reported, as listed in the charter and procedures, differed from those in the TS.

- The TS requires the NSDRC to "report to and advise" the Senior Executive Vice President; the charter listed the Vice Chairman, Engineering and Construction, to fill this role.

- The TS requires meeting minutes, reports of reviews, and TS 6.5.2.8 audit reports to be forwarded to the Senior Executive Vice President; the procedures listed the Vice Chairman, Engineering and Construction.

- The TS lists as Chairman of the committee the Vice President, Nuclear Engineering; the charter listed the Assistant Vice President, Nuclear Engineering.

(b) The TS 6.5.2.10.b requirements for forwarding reports of reviews conducted by the NSDRC to the Senior Executive Vice President within 14 days following completion of the review includes all of the items listed under TS 6.5.2.7. The NSDRC procedures contained a similar requirement but omitted five of the TS listed items. Three of these items, including safety evaluations for procedure changes, proposed design changes involving unreviewed safety questions, and proposed tests or experiments involving unreviewed safety questions, were to be reported to the Vice Chairman every three months instead of within 14 days. The remaining two items required by the TS to be reviewed by the NSDRC and reported on were not included anywhere in the procedure for submittal to the Vice Chairman. These were proposed TS changes and PNSRC minutes.

(c) TS 6.5.2.8 states that certain audits "shall be performed under the cognizance of the NSDRC." The NSDRC procedure states that "...6.5.2.8 requires audits to be conducted by the NSDRC." This misstatement of the TS requirement may have

led to significant deficiencies in the NSDRC audit program as described in observation (3) of this report section.

(2.2) Aside from the discrepancies in comparison to the TS, the NSDRC charter and procedures were fairly comprehensive in the description of committee responsibilities and activities. There were some features not contained in these documents, however, that would have served to make them more effective:

(a) There were licensee procedures that described NSDRC responsibilities, but these procedures were not referenced in the NSDRC charter or procedures. Committee members interviewed were unsure as to which procedures or how many described NSDRC duties.

(b) There were no guidelines on the use of alternates that included specifics on when an alternate could substitute for a member, and on the responsibility of each member to keep his or her alternate informed of committee activities.

(c) There was no requirement established to ensure that an alternate for the Chairman was also a full committee member.

(d) There was no designation of operating records including corrective action systems, to be reviewed by the committee.

(e) There were no requirements to review the following:

- Facility operations and records to detect trends that would not be apparent to the day-to-day observer.
- Facility training programs to periodically determine their adequacy and effectiveness.
- Changes to the QA program or procedures.
- All non-routine event reports including 30-day LERs and non-reportable Condition Reports.
- QA audit reports.
- The status of QA audit programs to periodically determine their adequacy and effectiveness.

- NRC inspection reports, Bulletins, licensee responses to these, NRC Circulars, and NRC correspondence relative to the facility operation.

(f) There was no requirement for members to periodically visit the site or to hold some committee meetings at the site to observe licensed activities and provide for interaction between the committee and plant staff.

(g) There was no provision for handling dissenting opinions among committee members, such as minority reports or inclusion in the minutes of the dissent and reasons for it.

(h) There was no guidance on what constitutes an unreviewed safety question or on the application of 10 CFR 50.59.

(2.3) The NSDRC procedures contained several strengths:

(a) A Committee Secretary was designated, as were several of the Secretary's responsibilities.

(b) The use of "Special Meetings," as opposed to regularly scheduled meetings, was described.

(c) The use of subcommittees was described in detail. Procedures for conduct of business of each of four standing subcommittees were included. Membership, meeting records, and reporting requirements were described.

(d) Specific procedures for the conduct of the TS 6.5.2.8 audit program were included. An evaluation of this program is included in observation (3) of this report section.

(2.4) The NSDRC's use of subcommittees in some ways circumvented the intent of the TS requirement to have an offsite committee. The subcommittees were made up of individuals with only a fraction of the diverse expertise available on the full committee, and yet they performed a disproportionate amount of the review and audit activities in key areas, such as design changes, plant occurrences, and audits. As an example, the Subcommittee on Plant Occurrences was given full responsibility for meeting the requirements of TS 6.5.2.7, subparagraphs e,f,g, and h. These review responsibilities included all nuclear safety significant

violations of TS and internal procedures, "significant operating abnormalities," 24-hour LERs, and "all recognized indications" of unanticipated deficiencies. This was their charter, an extensive list of responsibilities; yet the only items reviewed to meet these requirements were reportable Condition Reports (LERs).

The NSDRC failed to participate in the review process of the subcommittees to any significant extent, and this contributed considerably to the inadequate scope of items reviewed. The subcommittees kept meeting minutes which were not distributed to NSDRC members or reviewed by the full committee. The NSDRC performed no reviews or audits of subcommittee activities. Presentations by subcommittee chairmen at the semiannual NSDRC meetings varied somewhat in the depth to which the topics were covered, but generally they contained little detail. An example included the presentations made by the Chairman of the Subcommittee on Audits. At the most recent NSDRC meeting in February 1982, the audit presentation did not include a description of the content or findings of a single audit activity. It consisted of a listing of audits performed and a schedule of future audits.

The delegation of responsibility for completion of TS requirements by the NSDRC to its subcommittees with only brief presentations at meetings and no audits or reviews by the full committee provided no assurance to committee members that the TS requirements were being met. Several of the committee members interviewed were not even aware of what the subcommittees reviewed.

(2.5) The NSDRC procedures required each subcommittee to

> "submit a report of its activities to the Vice Chairman, Engineering and Construction, every three months... [which] shall include the subjects reviewed, conclusions and recommendations, and the status of action being taken...."

Contrary to this, these reports were not being submitted. The Vice Chairman did not receive subcommittee meeting minutes. The only reports of subcommittee activities submitted to the Vice Chairman were the reports of the presentations made by subcommittee chairmen at the semiannual NSDRC meetings and attached to the meeting minutes.

(2.6) Due to the assignment of principal NSDRC responsibilities to subcommittees without sufficient overview of subcommittee activities by the full committee, there appeared to be several subject areas that were not being adequately reviewed.

(a) The reviews performed to meet the requirements of TS 6.5.2.7.e did not include QA audit findings, significant non-reportable Condition Reports, and NRC inspection findings, all of which periodically involved violations of TS or of internal procedures having nuclear safety significance.

The licensee had recognized the failure of the NSDRC to review QA audit reports and had directed the committee in a June 1982 memorandum to correct this.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(b) In addition to the failure to review QA audit reports, the committee did not periodically review the QA audit program and the committee's own audit reports performed to meet the requirements of TS 6.5.2.8.

ANSI N18.7-1976 requires the committee to review written reports of the audit program and for the committee ("independent review body") or a "management representative" to review the audit program at least semiannually.

As indicated previously, the licensee had corrective action planned for the NSDRC to review QA audit reports, but there was no periodic review of the QA audit program and no plans to do so. The NSDRC did not review the NSDRC audit reports. They were not even reviewed by all members of the NSDRC's Subcommittee on Audits, but by usually only two members. Like the QA audit reports, the NSDRC audits frequently contained findings with substantial safety related significance.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(c) TS 6.5.2.7.i requires the NSDRC to review the "reports and meeting minutes of the PNSRC."

The PNSRC reports and minutes were not reviewed by the NSDRC. The NSDRC Secretary received the minutes of the PNSRC. They were neither distributed to the NSDRC members nor reviewed at committee meetings.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(d) TS 6.5.2.7.a requires the NSDRC to review safety evaluations for changes to procedures, equipment, or systems completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.

Although there was written guidance to assure that the safety evaluations for safety related design changes were routed to the committee or a subcommittee for review, there was no such guidance for procedure or procedure changes. No member of the committee who was interviewed could recall having reviewed a procedure under the provision of TS 6.5.2.7.a, and no one could identify any objective assurance that such procedures or procedure changes would get to the committee.

Another problem which was potentially more significant was that Plant Modifications, those designated by a PNSRC subcommittee as non-safety related, were not evaluated as to whether they required a 10 CFR 50.59 evaluation, and no such safety evaluations were performed. There were no provisions, written or otherwise, to identify 10 CFR 50.59 considerations on these facility changes, and no mechanism to get them presented before the NSDRC.

(e) The NSDRC performed no reviews of changes to the QA program or procedures.

(2.7) TS 6.5.2.8.a requires an annual audit of "the conformance of facility operation to provisions contained within the Technical Specifications...."

Interviews and records examined for the last five years indicated that audits had been conducted to meet this requirement. These audits appeared to cover most sections of the TS with one notable exception, the activities of the NSDRC as described in Section 6.

The PAS inspectors concluded that failure to audit these activities contributed to the weaknesses identified in this report.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(2.8) Many of the weaknesses identified in this report section were due, in part, to a lack of awareness by committee members and alternates of the committee's TS responsibilities. Many appeared uncertain as to how various TS responsibilities were met, or whether they were met at all.

Like the PNSRC members, those NSDRC members interviewed were asked about their own sense of assurance that the committee was meeting all of its TS and procedural commitments. Several indicated that the assignments were given to the subcommittees and that the subcommittees were responsible and held accountable for these areas. Many revealed that they were not certain as to what the subcommittees did. No one indicated that they personally checked periodically to assure that all responsibilities were being kept. Like the PNSRC members interviewed, there was no evidence of any sense of personal accountability for the completion of all committee responsibilities.

There were other areas indicating a lack of awareness. Most members and alternates interviewed demonstrated a weak understanding of 10 CFR 50.59, particularly the issue of safety related versus non-safety related as applied to 10 CFR 50.59, and the relationship between 10 CFR 50.59 and the FSAR. Several were unsure of the TS listed reporting requirements, and were unaware that there could be unreportable TS violations. Others believed that one or more NSDRC subcommittees reviewed all QA audit reports, all Condition Reports, and all NRC inspection reports. There was, however, no evidence to support this.

These weaknesses indicated a need for training and periodic retraining for all NSDRC members and alternates.

(3) NSDRC Audit Program

(3.1) At the majority of facilities inspected by PAS, the QA audit organization is responsible for meeting the TS 6.5.2.8 requirements for audits "performed under the cognizance of the" offsite review committee. At this facility, the NSDRC members themselves, acting as audit Team Leaders, performed the TS 6.5.2.8 audits. The program was administered by the NSDRC's Subcommittee on Audits and governed by the NSDRC procedures.

The obvious advantage to such a program was the direct involvement of upper level managers in auditing facility activities. The disadvantages were the large number of significant weaknesses in the audit program as described in the following observations.

(3.2) Guidance for the program was minimal and often contradictory. The principal guidance was contained in Section III of the NSDRC Procedures Manual.

(a) The definition of Audit Summary Report was an example of a contradiction within the procedure. In one section it was defined as containing

> "a copy of the completed audit checklist, other audit documentation verifying compliance, and copies of all issued CARs."

The statement went on to say that the "Audit Summary Report shall be distributed within 30 days after completion of the audit...." The next page discussed an Audit Docket Package consisting of several documents including the "Completed Audit Checklist," "Audit Summary Report," and "Dispositioned Corrective Action Requests." This passage referred to an Audit Summary Report which was a single sheet form containing a summary of the audit. It was this second definition which those persons interviewed indicated they understood and followed. And it was only this single sheet form, contrary to the earlier definition, which was distributed within 30 days following completion of the audit.

Other contradictions included those between the NSDRC procedures and a form entiled "Audit Cover Sheet" which provided the due dates for each part of the audit paperwork. Licensee representatives stated that the Audit Cover Sheet had been used

in preference to the NSDRC procedures on recent audit reports. Responses to Corrective Action Requests (CARs) were due by procedure within 55 days of the completion of the audit; by cover sheet within 60 days. The entire audit package was to be completed no later than 10 days after satisfactory disposition of all CARs according to the procedure; the cover sheet required the package within 75 days if there was no disagreement with the CAR reply, and within 105 days if there was.

(b) The NSDRC procedures provided minimal guidance for the development of audit checklists. Team Leaders were given complete responsibility for writing the audit checklists and each new Team Leader, or members of their staff, had to develop completely new checklists for each successive audit in a given area. There were no standard checklists which could be augmented for successive audits, and there were no minimum checklist requirements to ensure that essential elements were audited. For specific items in the checklists there were no recommended sample sizes and no guidance to specify sample sizes used during conduct of the audits. The only guidance for the content of checklists was a suggestion that they contain a provision for assuring that previous audit required corrective actions had been implemented.

(3.3) ANSI N45.2.12-1977, to which the licensee committed, specifies the requirements for auditing QA programs, of which the TS 6.5.2.8 requirements are a part. Several of the provisions of this standard were not followed in the NSDRC audit program.

(a) Many of the audit reports examined contained no summary statement, as required by paragraph 4.4.4, that included "an evaluation statement regarding the effectiveness of the quality assurance program elements which were audited." Most audits, for example, evaluated procedure implementation, but failed to evaluate procedure adequacy or effectiveness and to include a statement regarding that in the audit summary.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(b) Paragraph 4.4.5 requires an audit report with a

> "description of each quality assurance program deficiency in sufficient detail to assure that corrective action can be effectively carried out...."

Paragraph 4.4.6 requires that "the audit report shall be issued within thirty days after the post-audit conference."

TS 6.5.2.10.c requires these audit reports be forwarded to the Senior Executive Vice President within 30 days after completion of the audit.

The NSDRC procedure required that,

> "the completed Audit checklist (the licensee's detailed report), other Audit documentation verifying compliance, and copies of all issued CARs... be distributed within 30 days after completion of the audit...."

Contrary to these requirements, interviews and audit records examined for the last four and one-half years revealed that the audit reports, separate from issuance of the CARs, had seldom been issued in 30 days. In the period from 1978 through 1981, 44 audits had been conducted and only 7 audit reports had been issued within 30 days of completion of the audit. Several were issued over a year after the performance of the audit.

It was the licensee's stated practice to issue only the single sheet Audit Summary Reports within the 30 days. However, an examination of records for 44 recent audits showed that only 22 Audit Summary Reports had been issued within 30 days.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(c) Responses to CARs were also not submitted in accordance with the standard, which requires the audited organization to respond as requested by the audit report, recommending 30 days to give results of their review and investigation, and to clearly state the corrective action taken or planned to prevent recurrence.

The NSDRC procedure allowed a response time of 45 days after the CAR was issued; the Audit Cover Sheet allowed 46 days.

Contrary to all of these requirements, there were numerous examples in the audit reports examined of late responses to CARs. Audit 74 on Staff Performance, Qualifications, and Training, July 1981, had four CARs, all of which were responded to nearly three months after they were issued. Eight CARs were issued in May 1982 for Audit 83 on Actions Taken to Correct Deficiencies. None had been answered at the time of the PAS inspection.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(d) Section 5.1 of the standard requires that audit records be stored in accordance with ANSI N45.2.9. That did not appear to be the case with the NSDRC audit records. There was no dual storage system. The audit records were stored in old file cabinets with no apparent fire protection capability. During the inspection, one of the file drawers failed to close properly and remained slightly ajar. Control of the records consisted of a volunteer sign-out sheet taped to the file cabinet. Several of the audit reports were missing and unaccounted for on the sign-out sheet, although they were all recovered within a few hours.

(e) Other areas which appeared to differ from the requirements of ANSI N45.2.12 were of less significance but require the attention of licensee management.

Paragraph 3.5.3.4 recommends supplemental audits be performed "when it is suspected that the quality of the item is in jeopardy due to deficiencies in the quality assurance program." There was no evidence in the records examined that supplemental audits had ever been performed. There was some evidence, however, as measured by the number of CARs issued in individual areas that the quality of those areas might qualify as "in jeopardy." In the years 1978 through 1981, for example, fire protection program audits amassed 38 CARs.

Another area at variance with the standard involved the apparent lack of auditor training, qualifications, and certification. Paragraph 2.2 requires that auditors "shall have experience or training commensurate with the scope, complexity or special nature of the activities to be audited"; and the standard specifies how that training may be accomplished. There were no records available to demonstrate auditor training or qualifications on any of the NSDRC audits examined.

As far as auditor certification, the licensee had requested from NRR and had been granted, in April 1982, an exemption to ANSI N45.2.23-1978 for all "management audit functions performed by the...[NSDRC] in compliance with the... Technical Specifications."

(3.4) In addition to the problem of late responses to CARs, as described in observation (3.3.c), there were numerous other weaknesses in the audit corrective action system.

(a) Many did not have the prescribed corrective action completed as scheduled. According to the Audit Status report there were 26 CARs written in 1981. Eleven of these, over 42 percent, were open at the time of this inspection and were past their due dates.

(b) Several CARs were apparently closed out on the basis of a commitment to take corrective action with no open item tracking system available and little assurance that the actions would be verified at a later date.

CAR 62-4 was closed out on the basis that "QA will undertake the development of a training program for indoctrination of AEPSC personnel in AEPSC QA requirements...." NSDRC members interviewed were not aware of the status of the training program.

An unnumbered CAR on Audit 79 issued in May 1979, required a new PSNRC procedure. The response, due in June 1979, was submitted in October 1979, and committed that "...a revised procedure will be generated and is projected to be completed by February 1, 1980." On this basis, the CAR was closed out. The new procedure was completed in

July 1981, a year and one-half beyond the promised date, and 20 months after the initiating CAR had been closed out.

(c) There were some instances found where the audit report gave evidence of intended corrective action in response to a checklist item, but for which no CAR was issued and consequently, no followup was possible. Examples included such actions as future training programs, plans to increase manpower, and new or revised procedures.

Audit 74 item 6.L stated in response to a checklist inquiry into a shortage of health physics persons: "Progress is being made. The plant is presently 4 short of their authorized strength." No CAR was issued; no followup was planned or indeed possible with this system as established.

(3.5) Audit reports appeared to lack adequate scope to effectively meet the requirements of TS 6.5.2.8. This observation, with the examples provided in paragraphs a,b, and c below, was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(a) TS 6.5.2.8.c requires audits on the "results of actions taken to correct deficiencies...." The NSDRC audits in this area failed to examine the results of actions taken on non-reportable Condition Reports. These accounted for over half of all Condition Reports and concerned substantial safety related issues.

(b) TS 6.5.2.8.a requires audits on the "conformance of facility operation to provisions contained within the Technical Specifications...." The NSDRC audits in this area failed to examine one of the most significant TS areas, Limiting Conditions for Operation (LCOs). There was also no audit coverage of the NSDRC activities as prescribed in TS Section 6.

(c) TS 6.5.2.8.d requires audits on the "performance of activities required by the Quality Assurance Program to meet the criteria of Appendix 'B', of 10 CFR 50...." The NSDRC audits in this area failed to examine any of the numerous corporate office activities related to Appendix B requirements.

The audits in this area were also limited by the selection of those Appendix B criteria activities examined. The last two such audits illustrated this weakness. Audit 62, May 1980, examined parts of criteria 1, 2, 6, and 7. Audit 84, June 1982, examined parts of criteria 1, 5, 6, and 18. These two audits covered an audit period of four years. In this time, only 6 of the 18 criteria had been examined under this TS required audit.

(d) For all of the audited areas, and particularly for comprehensive audit requirements such as TS 6.5.2.8.d, there was no overall plan to coordinate effective audit coverage of the required subject. There was no assurance, for example, that the measures taken to comply with Appendix B, Criterion 15 on Nonconforming Materials would ever be audited. Furthermore, there was no coordination or plan on what aspects of a selected audit subject were to be examined. On an audit of TS surveillance activities, for example, there was no assurance that a given surveillance activity, such as the operational testing of diesel generators, would ever be examined. These decisions were left to the individual Team Leaders and were not effectively coordinated by the Subcommittee on Audits or the NSDRC.

(e) Another aspect of limited scope was demonstrated in Audit 74 on Staff Performance, Qualifications, and Training. There were 10 audit items, several with multiple subparts. Of these 10, 9 had to do with verifying corrective action taken on previous audit findings, NRC findings, or INPO findings. Only one audit question dealt with some aspect of the licensee's program which had not been recently audited. This report was less an audit than it was a tracking system for open items.

(3.6) In addition to lack of scope, audits lacked depth.

(a) Considering the complexity of audit subjects and compared to other facilities inspected by PAS, the time spent conducting NSDRC audits appeared insufficient for indepth, comprehensive audits. The audits examined took an average of two to four man-days to perform. The better audit programs at facilities previously inspected by PAS were found to employ about 10 man-days per audit for the annual and biannual TS required audits.

(b) The number of items examined on each audit was small when compared to well written audits of other facilities. The checklists of the audits examined varied from 10 to 17 different items. Audits 62 and 83, as previously described, covered only a small portion of the 18 criteria of 10 CFR 50, Appendix B.

(c) The guidance for the content of audit checklists was limited to a suggestion that audits provide some assurance that earlier audit corrective actions had been implemented. This was done. There was no indication, however, that the adequacy of corrective actions taken were ever evaluated.

(d) Sample sizes for audited items were seldom specified, but appeared low when they were. More significantly, there were instances when problems were identified with an audited item and no indication that the sample size was correspondingly increased. Audit 76 on Actions Taken to Correct Deficiencies, for example, selected two recommendations made by INPO to evaluate whether the facility had performed the suggested actions. On one of the two recommendations, no action had been taken and none was planned; however, the sample size was not increased to evaluate the extent of the response or lack of it to other INPO findings.

(e) Audit reports appeared in many cases to lack sufficient detail to provide a basis for the findings. The written responses to checklist items often amounted to little more than a simple statement of conclusion. To an Audit 74 item regarding the scheduling of maintenance training and attendance records, the audit report response was that the "...training is documented." On an Audit 76 item regarding the verification of corrective action on three LERs, the report responded on only two of the three and on those did not indicate what the corrective action entailed or whether it appeared adequate.

(f) The audit methods used to verify program requirements was less than adequate on some audits. Audit 79 was the only audit in the records examined performed to evaluate PNSRC activities. The method used to verify that the PNSRC met their TS assigned review responsibilities was to examine

evidence in the meeting minutes. The audit verified, for example, that the PNSRC had reviewed RFCs and LERs. It did not, however, verify that all RFCs and LERs requiring PNSRC review had been reviewed. It did not evaluate what the reviewers looked for in their examination of RFCs or LERs. It did not measure any aspect of the review process, most importantly, its adequacy and effectiveness.

(3.7) The reviews performed by the NSDRC of their audit program appeared less than adequate for an effective program.

(a) The review process was not timely. As stated in observation (3.3.6), only 7 complete audit reports out of 44 audits conducted in the 4 years from 1978 through 1981 had been issued within 30 days of completion of the audit.

(b) The NSDRC members and the committee as a body performed no review of their own audit program. Only the NSDRC Chairman and Secretary were sent copies for their review and signature. Even the Subcommittee on Audits did not review the audits. Typically the subcommittee Chairman and only one other subcommittee member reviewed an audit report; and this review was, according to interviews, largely a bookkeeping function for the purpose of assuring that the administrative aspects of the audit were satisfactory.

(c) At each semiannual NSDRC meeting the Chairman of the Subcommittee on Audits gave a presentation on the schedule of audits performed and planned. Interviews revealed that there was no discussion at these meetings on the content or findings of any NSDRC audit.

(d) In addition to the lack of reviews of audit reports, the NSDRC had no effective tracking mechanism and no followup on outstanding CARs.

(3.8) The management of the NSDRC audit program was poor. There did not appear to be an effective audit planning, coordinating, and review program under the NSDRC Subcommittee on Audits. The positions of subcommittee Chairman and Secretary were minor collateral duties.

The majority of the work of the subcommittee was performed by the Secretary, who appeared to perform principally a bookkeeping function on audit reviews and followup of CARs. The subcommittee members acted chiefly in support of this effort.

The business of running the audit program was left to the individual Team Leaders. They selected those aspects of an assigned audit subject to evaluate without any overall plan or guidance as to what audit needs existed for that area; they authored the audit checklists with apparently only cursory review by the subcommittee Secretary; and they were responsible for all tracking, followup, and close-out of the findings. Because of this system, the audit program was not well coordinated and was not consistent from one audit to the next or with the procedures.

(3.9) The NSDRC procedures, paragraph H.3, required the Subcommittee on Audits Secretary to maintain "a status log on 'Open CARs'...." Paragraph I of the procedures required the Secretary to maintain "the status of audits, audit summary reports, audit docket packages, audit reports, open Corrective Action Requests...."

Both of these requirements were met by an Audit Status report. This was a single sheet document for each year listing the month, audit number and title, and the completion dates for the various stages in the performance of an audit, such as plan approved, audit conducted, and CAR closeout. The report was revised infrequently, but at least twice a year, before each NSDRC meeting.

For several reasons, this Audit Status did not appear to fulfill the requirements as described in the NSDRC procedures.

(a) The Audit Status was not a current document. As stated before, it was revised infrequently. Even after a revision, however, there was information not provided. One reason for this was that not all audit Team Leaders provided information in a timely manner.

(b) The Audit Status did not provide status on individual open CARs. It provided only the total number of open CARs for each audit. This appeared to be contrary to the intent of the NSDRC procedures. Part of the problem of maintaining the status of

CARs was that for many audits the CARs were not numbered. For these audits there was no apparent means of readily identifying the CARs.

(c) The "status" provided was actually a list of completion dates. There was no description of such issues as work in progress, responsibilities assigned, or delays encountered.

b. Conclusions

There were few strengths noted in the area of Committee Activities. One which applied to both committees was the existence of generally comprehensive and detailed committee procedures.

The significant weaknesses were numerous. The members of both committees shared the need to improve their understanding of the TS responsibilities, committee procedures, and 10 CFR 50.59 requirements. Both committees delegated responsibility to subcommittees to the extent that they had little assurance that their TS requirements were being met. Both committees failed to meet all their TS review requirements.

The NSDRC audit program was written to fulfill the TS 6.5.2.8 audit requirements, but was not given sufficient management attention and support to do this effectively. The program did not meet the requirements of ANSI N45.2.12-1977. Audit reports and Corrective Action Requests were not adequately reviewed, followed, and closed out. Audits lacked sufficient scope and depth to effectively carry out the TS requirements.

The Performance Category for the area of Committee Activities was Category Three.

3. Quality Assurance Audits

The objective of this portion of the inspection was to evaluate the adequacy of the licensee's management controls associated with quality assurance audit activities.

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) The QA organization consisted of corporate and site groups. The QA Manager was in charge of the corporate group and provided technical guidance to the site QA Supervisor in charge of the site group. Procedures issued to control audit activities included AEPSC General Procedures (GPs), Quality Assurance Procedures (QAPs), Plant Manager Instructions (PMIs), and Quality Head Instructions (QHIs). GPs and QAPs provided guidance for the corporate audit program. PMIs and QHIs provided guidance for the site audit program.

QAP-19, QA Audits, revision 4, and QHI-7020, Review and Audits, revision 1, described the conduct of audits. These procedures showed the following programmatic weaknesses:

(a) There was no written guidance provided for the preparation of audit checklists to consider such items as sample sizes, personnel changes, procedure revisions, and previous negative findings.

(b) There was no written guidance for the preparation of audit reports.

(c) There was no written guidance to encourage auditors to go beyond or deviate from the audit checklist when conditions warranted. Interviews revealed that this was encouraged in the conduct of audits.

(2) QAP-21, Auditor Qualification, revision 2, and QHI-7021, Qualification of Plant Quality Assurance Audit Personnel, revision 0, described training and qualification requirements for auditors. Certain statements within these procedures were contrary to the requirements of ANSI N45.2.23-1978; another appeared to require clarification.

(a) QAP-21 allowed the QA Manager to waive the lead auditor examination in certain cases. QHI-7021 allowed the site QA Supervisor to waive portions of the lead auditor

examination based on previous auditing experience. ANSI N45.2.23-1978 does not allow these exemptions. Review of site and corporate lead auditor training records showed that lead auditor examinations had not been waived in the qualification of lead auditors.

(b) QAP-21 contained a statement that "Audit Team Members require no prior training or experience." There was no clarification provided. The QA Manager stated this was intended to apply to audit team members from other departments who might be used to supplement the qualified auditors in performing audits.

(3) PMI-2010, Plant Managers and Department Head Instruction, Procedures and Associated Indexes, revision 7, described how to prepare, approve, and change site procedures. Review of this procedure revealed the following weaknesses:

(a) PMI-2010 required procedures to be reviewed every two years, but there was no guidance on what to review for, such as compliance with latest codes, standards, and QA program changes.

(b) There was no requirement to review lower tier procedures when a PMI was changed.

(4) Interviews and review of organization charts revealed that the site QA auditing staff was not independent of site management. The QA Supervisor reported administratively to the Plant Manager who performed his annual appraisal. The licensee's interpretation of independence to meet 10 CFR 50 Appendix B, Criterion 1, appeared unique when compared to other facilities inspected by PAS. For those nuclear facilities, the QA auditing staff reported directly to corporate management. Lack of independence at D. C. Cook may have contributed to scheduled audits not being performed as described in the following observation.

(5) QA audit status reports and interviews indicated that the site QA Auditing Section was understaffed for the work assigned to it. The site QA Supervisor and the auditing staff had been assigned by the Plant Manager to perform plant related activities outside of normal QA auditing. Only 60% of scheduled plant audits were performed in 1980 and 1981. The QA Auditing Section had not performed surveillances of maintenance and modification work in progress. These problems were indicative of a lack of management support for the manpower requirements for the site auditing function.

(6) Interviews and review of training and qualification records revealed that most of the site QA auditors had little or no past auditing experience and little technical background. The backgrounds of four of five auditors included experience as a fossil plant shift supervisor, a security supervisor, a chemical technician, and a school teacher. Only one of the five auditors was a qualified lead auditor in accordance with ANSI N45.2.23-1978. Auditors had not been supplemented by technical personnel from other departments in conducting audits. This could reduce the effectiveness of audits performed in technical areas.

(7) Interviews and review of the QA training program revealed the program had not included any plant systems training which could make the auditors more effective in performing audits.

(8) A management representative or the Nuclear Safety and Design Review Committee (NSDRC) was required by ANSI N18.7-1976 to review the audit program semiannually. Interviews revealed that this had not been accomplished. This is addressed in observation 2.6 of Section 2.

(9) The QA Manager submitted an annual report to the Executive Vice President, Construction and New York Engineering, on QA audit activities. Review of the 1981 annual report showed that only the corporate audit activities were included. The site QA audit activities were not included, thus, depriving management of information on site audit activities. The QA manager stated that both corporate and site activities would be included in the next annual report.

(10) Interviews and review of audit records revealed that there had been no audits of the NSDRC and PNSRC activities by the site or corporate QA auditors. This deficiency was recognized by the site and an audit of the PSNRC had been scheduled.

(11) Review of corporate QA audit reports revealed that audits had been strongly oriented toward procedure and program adequacy rather than implementation. The QA Manager stated that the corporate audit program was about two years old, and during this period the audits were intentionally oriented toward department program adequacy. He further stated that the emphasis was being shifted to program implementation.

(12) Audits were performed using a checklist prepared before each audit. Standardized checklists had not been used to supplement the individually prepared checklists to assure that certain critical items were checked each audit.

Sample sizes were not specified on audit checklists. However, review of audit reports indicated that sample sizes had been adequate.

(13) Audit findings were recorded on Corrective Action Requests (CARs). These CARs were sent to the appropriate departments for corrective action. Corporate QA used a computer list to track CARs; site QA manually tracked CARs using an audit status report. These appeared to be effective tools for tracking CARs.

There was no trending of CARs which would provide management with information to aid in the evaluation of the QA program implementation. Trending could provide valuable information concerning violations, personnel errors, inadequate procedures, and other problem areas.

(14) ANSI N45.2.12-1977, requires that audit reports include an evaluation statement regarding the effectiveness of the quality assurance program elements which were audited. Review of corporate and site audit reports revealed that, with the exception of corporate audits conducted within the last three months, evaluation statements were not included.

This observation was discussed with the licensee and was presented to the Senior Resident Inspector as a potential enforcement finding.

(15) Review of site QA audit reports showed they were well prepared, contained good descriptive material, and had detailed information to substantiate audit findings. Corporate audit reports were less detailed but adequately met the program requirements.

(16) Interviews and review of record storage at the corporate office revealed that corporate QA audit records were not stored in a four hour fire rated facility or a duplicate record storage facility as recommended by ANSI N45.2.9-1974. The licensee had recognized the above and was making plans to correct it.

b. Conclusions

The licensee had developed a program of planned and documented audits to verify compliance with administrative controls and the QA program. The significant weaknesses were that the QA Supervisor was not independent of site management; the site QA audit section was understaffed; only 60 percent of the scheduled site audits had been performed; semiannual reviews of the audit program were not performed; and the site auditors lacked technical backgrounds and previous auditing experience. These weaknesses indicated a lack of management support for the QA audit program.

The Performance Category for the area of QA Audits was considered Category Three.

4. Design Changes and Modifications

The objective of this portion of the inspection was to evaluate the adequacy of management controls associated with engineering, design changes, and modifications.

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) PMI-5040, Design Changes, revision 4, described the policy and administrative controls for requesting and accomplishing design changes. Design changes were originated at the plant site or at the corporate offices in New York and were called Request For Changes (RFCs). Some were designated as Emergency RFCs, which required that any sketches, drawings, or other design work be performed at the site.

During a review of several Emergency RFCs, for which the work had been completed, it was found that the design verification required by ANSI N45.2.11-1974 was lacking or incomplete as demonstrated by the following examples:

. RFC 12-1803 had no documented design verification.

. RFCs 02-1885 and 02-1823 contained sketches that had been initialed with the letters "OK" written on the sketch. This was apparently the only design verification.

Contributing to this weakness was the failure of PMI-5040 to provide guidance for the performance of design verifications on Emergency RFCs.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(2) Interviews and document reviews revealed that the instructions for establishing the design verification process had been established independently by each engineering division. In some areas of engineering work, such as drawing reviews, the instruction requirements met ANSI N45.2.11-1974 require-

ments. However, in other areas of engineering work, the instruction requirements such as Mechanical Engineering Design Procedure 10, Design Control, Revision 2 and Electrical Generation - Electrical Engineering Procedure Manual, Section 0.22, Engineering Calculation and Design Procedure, Revision May 22, 1981, did not correctly implement ANSI N45.2.11-1974, specifically:

- The assumptions made by the engineer performing design verifications were not documented.

- Engineering supervisors approved the selection of components used, but there was no independent engineering verification.

- Design control procedures were not written to consider "basic questions" to be addressed during the review process, in accordance with ANSI N45.2.11-1974, paragraph 6. There was no evidence to indicate that the design reviewer addressed these questions.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

Between 1974 and 1982 there was no written corporate guidance provided to implement ANSI N45.2.11-1974. GP-3, Design Control, revision 0, was issued July 9, 1982, for "establishing design controls in compliance with ANSI N45.2.11-1974." Interviews revealed that the engineering control procedures would be revised to reflect the requirements of GP-3.

(3) GP-25, Engineering Design Changes, revision 0, and PMI-5040, Design Changes, revision 4, described the processing of RFCs. For Emergency RFCs it was the requirement that the PNSRC perform a safety evaluation to ensure that an unreviewed safety question did not exist. When the work, on site, associated with an Emergency RFC was completed, the RFC was to be processed as a normal RFC through the Change Control Board (CCB) and the Nuclear Safety and Licensing Department (NSL). The NSL prepared a safety evaluation which was subsequently reviewed by the NSDRC in accordance with TS 6.5.2.7.a. Work at the site associated with several Emergency RFCs had been completed, some dating back to 1978, with the NSDRC safety evaluation review not performed.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(4) GP-25, Engineering Design Changes, revision 0, had 12 Procedure Temporary Sheets issued that dated back to 1975. Interviews revealed that these numerous temporary sheets made the procedure difficult to read and understand. The use of these temporary sheets was considered a significant weakness, both at the corporate office and at the site, and is discussed in more detail in observation 4 of Section 5 of this report.

(5) Interviews and observation revealed that design calculations and other engineering data were filed in cabinets in general office areas. These storage facilities did not comply with ANSI N45.2.9-1974 fire protection requirements. This is also discussed in observation 16 of Section 3.

(6) PMI-5040, Design Changes, revision 4, described the sequence of actions taken by the Design Change Coordinator to ensure that operators were provided up-to-date drawings and revised procedures coincident with returning a modified system to service. However, the form used by PMI 5040 to control completing the RFC did not include a hold point to ensure that these actions were taken. Program reviews and interviews revealed that the PMI was being revised to include hold points to ensure that a system could not be returned to service until the updating of drawings and procedures was completed. The proposed revision did not, however, include instructions to ensure that training, or briefing of operators, concerning system changes, was performed ("commensurate with the complexity of the change,") (ANSI N18.7-1976) coincident with placing the modified system in service.

(7) Interviews and document reviews revealed the following weaknesses in the RFC program:

- A report titled, "D. C. Cook RFC Status Report," was periodically generated by the Change Control Board Secretary. The report provided several data points including the number of open RFCs, the total number closed out since 1975, and the total number of RFCs generated since 1975. The report did not, however, provide information to indicate the number of open RFCs on a yearly basis and whether the number was increasing or decreasing. This information was developed and provided to the inspector during the inspection.

- Seventeen Emergency RFCs, written prior to 1979, had not been completed.

- As of July 1982 there were 438 open RFCs, of which more than 100 normal RFCs had been written prior to 1978.

(8) Interviews and the review of the program for the control of modifications revealed several weaknesses:

- Procedures to effect design change installations were rarely used.

- Second line supervision conducted inspections of the work activities. It was revealed that the responsibilities of these individuals were not independent from the responsibility for the conduct of the work. This was especially true on the back shifts where fewer supervisors were assigned. This is also discussed in observation 5 of Section 5.

- The performance of inspections of work activities was not monitored by the site QA audit organization.

b. Conclusions

There were several significant weaknesses in the Design Change and Modifications program: design verification of emergency design changes was inadequately documented; corporate engineering division instructions had not correctly implemented ANSI commitments; NSDRC had not performed the safety review of some emergency design changes dating back to 1978; and the control of modifications was inadequate.

The Performance Category for the area of Design Changes and Modifications was considered as Category Three.

5. Maintenance

The objective of this portion of the inspection was to evaluate the adequacy of the licensee's management controls associated with corrective and preventive maintenance activities.

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) PMI-2290, Job Orders, revision 3, established the general administrative controls for job orders (JOs) at the D. C. Cook Nuclear Plant. Each department had their own

procedure for processing JOs assigned to them. Since the same JO forms were used by all departments in controlling maintenance activities, it appeared that all the various procedures could be integrated into one comprehensive procedure. This would preclude confusion and make it easier for reviewing and revising the JO administrative control procedures.

MHI-2291, Job Order Control, revision 5, specified that,

> "SOE permission to start work or notification to the SOE of completion of work is not required for work that is conducted which cannot affect an operating system. Examples: Work in the machine shop or calibration of secondary standards in the C & I Shop."

This statement implied that SOE (Shift Supervisor) permission was required for performing maintenance activities in areas containing operating equipment. A review of completed JOs, however, revealed that the Shift Supervisor's permission was not always required for minor maintenance work on or around operating equipment. This appeared to be contrary to the intent of MHI-2291 and to good practice.

Shift Supervisor approval was required for significant maintenance work and for obtaining a Welding, Burning, Grinding Permit; however, there was no requirement to notify the Shift Supervisor on a day-to-day basis of activities being performed.

(2) Procedure 12 THP-6010.RAD.401, Access Control Facility and Controlled Area and Exit, revision 5, addressed the proper method for entry to and exit from a controlled area. Entry was monitored by an on-line computer system which approved entry based on the following: individual requesting entry was listed on the applicable Radiation Work Permit, radiation exposure was within limits, and training in radiation protection procedures had been received within the past six months. By following entry and exit procedures, an individual's radiation exposure history was updated immediately by the computer. The computer was also utilized to generate personnel radiation exposure reports. This system was considered to represent a significant strength in the licensee's maintenance program.

(3) Maintenance procedures were provided for safety related maintenance activities. Procedures contained detailed references, precautions, and signoff sheets. Inspection Hold Points were identified throughout the procedures. A typical signoff sheet identified the work activity and documented such things as the clearance permit number,

Radiation Work Permit number, description of work done, inspection hold point signoffs, and Maintenance Foreman and Maintenance Supervisor review signoffs. The completed signoff sheets were attached to the completed JOs and became part of the Machinery History File. The signoff sheets provided good control and enhanced documentation of maintenance activities.

(4) PMI-2010, Plant Manager and Department Head Instructions, Procedures, and Associated Indexes, revision 7, established the system of instructions and procedures to implement the requirements of the QA Program. This procedure addressed the method for making changes to existing procedures and instructions. Changes were documented on temporary sheets, which, after approval, were attached to the existing procedures or instructions. PMI-2010 specified that,

> "Instructions and Procedures which have Temporary Sheets that are to be incorporated into a permanent revision should be so revised in an expedited manner. Temporary Sheets should remain applicable no longer than necessary."

It was determined that many procedures and instructions had Temporary Sheets attached that had been outstanding for up to three years without being incorporated into the procedures or instructions. For example, PMI-2010 had 17 Temporary Sheets attached, and the last revision to the procedure was dated October 11, 1978. This is a widespread problem applicable to most procedures.

The latest revision (revision 7) to PMI-2010 specified that "Temporary Changes shall have an expiration date placed on them," and that "Temporary Sheets shall not be valid for longer than one year from the date assigned to the temporary change." This requirement had been changed, however, by a temporary change documented by Temporary Sheet TP-6 on June 6, 1980, which was still applicable. This change stated that,

> "Temporary Sheets which are written as a permanent change to a procedure or instruction shall not have an expiration date on them. They are valid for the life of that revision of the procedure or instruction."

This is considered to be a significant weakness in that there was no procedural control to require that Temporary Changes be incorporated into the procedures and instructions in an expeditious manner.

The Operations Department procedures and instructions had been rewritten, and temporary changes incorporated, within the past year. A review of these procedures revealed that Temporary Sheets over six months old, had not been incorporated since the procedures were rewritten. This further points out the need to establish controls to revise procedures in a timely manner following the issuance of a Temporary Change.

(5) Inspection Hold Points were identified throughout the maintenance procedures. Interviews revealed that the responsible foreman or supervisor had been performing these inspections, since there was no QC group to monitor maintenance activities. This appeared to be contrary to ANSI N18.7-1976, paragraph 5.2.17, which requires that such inspections be performed by qualified individuals other than those who performed or directly supervised the activity being inspected. Furthermore, there were no QA surveillances performed on maintenance activities.

This observation was discussed with the licensee and presented to the Senior NRC Resident Inspector as a potential enforcement finding.

(6) MHI-2291, Job Order Control, revision 5, and THI-2290, Job Orders, revision 5, specified that job briefings should be conducted for each job. Interviews revealed that job briefings were usually conducted as appropriate. It was also observed that training aids were used for the more complicated jobs. A celluloid overlay of the main coolant pump, for instance, was used as a training aid during a job briefing witnessed by the inspector.

(7) The Maintenance Department had established an effective Machinery History File. The file consisted primarily of completed job orders with attached spare part requisitions and maintenance procedure signoff sheets. The file was indexed and the maintenance history for a specific component could be easily obtained. Spare parts used on a specific job were traceable to the storeroom files. Conversely, spare parts issued by the storeroom could be readily traced to the specific job order.

(8) There were 1,330 outstanding JOs assigned to the Maintenance Department, as of August 5, 1982. This appeared to be a large number; however, the true significance could not be readily determined since there was no correlation to man-hours. Weekly reports to management addressed maintenance activities and the number of JOs completed but did not address the JO backlog. Interviews revealed that AEPSC management did not have knowledge of the size or

significance of this backlog. It appeared that the information entered into the existing computerized JO tracking system could be utilized to generate a meaningful trend report to management on the status of the JO backlog.

(9) Within the past year, the Maintenance Department had performed a manual review and evaluation of the Machinery History File for repetitive occurrences. A computer program was being developed to perform this evaluation. No other formal trending or evaluations appeared evident.

(10) Orientation and skills training programs had been established for entry level technicians and maintenance personnel. These programs were comprehensive and training was well documented. However, there was no written program establishing requirements for maintaining skills proficiency once the entry level training had been completed, and there was no documented evaluation of individual training needs. Each department had their own training program independent of the D. C. Cook Training Department. There was a lack of coordination of training needs between departments and a lack of coordination between the various departments and the D. C. Cook Training Department.

(11) Several operations related weaknesses were observed during the inspection. These weaknesses are as follows:

(a) A review of the Control Room Log and discussions with operations personnel revealed that the performance of surveillance testing by C & I technicians was not normally logged. The logging of surveillance testing and other major activities is an additional means to help ensure that operating personnel are continually aware of activities within the plant that could affect safety.

(b) During a review of the lifted wire and jumper log and the associated procedures, the following weaknesses were identified:

. The status of several wires lifted over four years ago remained unresolved.

. Independent verification of the lifting of leads or installation of jumpers was not performed. Only the restoration of these leads required independent verification.

. The Shift Supervisor could approve the installation of jumpers or the lifting of leads without PNSRC review. This system allowed the potential for

temporary modifications to be made without the appropriate safety evaluation. This was considered to be a significant programmatic weakness.

b. Conclusions

The most significant strengths in the maintenance area included comprehensive maintenance procedures, an effective Machinery History File, and the practice of performing job briefings prior to major maintenance activities.

A major weakness was the untimeliness of incorporating Temporary Procedure Changes into permanent procedure revisions. Other significant weaknesses included the redundancy of job order procedures; operations personnel's apparent unawareness of ongoing maintenance activities; the lack of management awareness of the job order backlog; the lack of independent inspection of maintenance activities, and the lack of an adequate program for the safety review of lifted leads and jumpers.

The Performance Category in the areas of corrective and preventive maintenance was considered to be Category Two.

6. Corrective Action System

The object of this portion of the inspection was to evaluate the adequacy of the licensee's management controls associated with corrective action systems.

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have been specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) The licensee's corrective action system consisted of Noncompliance Reports (NCRs), Corrective Action Requests (CARs), and Condition Reports (CRs). NCRs were used to identify and correct conditions involving safety-related activities under the direct control or responsibility of AEPSC. CARs were used by QA to initiate and track corrective actions for audit findings. CRs were used by plant personnel to report conditions that were suspected or known to be adverse to quality or plant safety.

The corrective action system had been implemented and appeared to be effective, particularly the use of CRs by plant personnel. This was attributed to the simplicity of the system and to the awareness of reporting require-

ments by all personnel. There was frequent use of this system by all personnel; there had been 510 CRs written in 1981 and 441 written this year, as of July 31, 1982.

(2) QA maintained a CR file and logged, tracked, categorized each CR, and identified all similar repetitive CRs to aid in determining the root cause and generic implications of a reported event.

A large percentage of all CRs were directly associated with job orders (JOs); either CRs were written from JOs or JOs were initiated to correct problems identified by CRs. The Maintenance Department reviewed the JOs in the Machinery History File for repetitive events. The evaluation of this review revealed that repetitive events, with few exceptions, had already been identified by CR investigations, and corrective actions had been taken or were in progress.

(3) The AEPSC Nuclear Engineering Division received copies of all CRs. An engineer was assigned to investigate the cause of each event and to propose corrective actions as appropriate. This review was normally independent of the investigation initiated by the Plant Manager.

(4) PMI-7030, Condition Reports, revision 5, specified that,

> "Condition Reports should not be permitted to remain unanswered for long periods of time. Neither should they remain open if adequate corrective action has been identified...."

CRs were classified as either A, B, C, D, E or F and a completion time for PNSRC review was designated for each classification. The completion time for non-reportable events was designated as being 30 days. PMI-7030 specified that,

> "those Condition Reports not completed on the assessed completion date will have another assessed completion date, with a justification for the changed date, submitted to QA with an update status of the completion progress."

A review of the Condition Report Master Index, maintained by QA, revealed that 11 of 21 CRs still outstanding from 1981 and 38 of 55 CRs outstanding from the first quarter of 1982 had delinquent completion dates. This was also a problem of lesser degree with CARs. It appeared that the corrective actions required for many of the outstanding CRs could be completed with minimal effort.

(5) The licensee had not established an effective program to evaluate adverse trends or generic issues from CRs and CARs. Parameters or areas for trending had not been identified. QA did review CRs for repetitive occurrences each time a CR was issued. QA also performed a quarterly and yearly review of all CRs for repetitive occurrences and issued reports to the Plant Manager. These reports, however, only provided listings of CRs associated with a given general area or class of components. No trending other than repetitiveness was attempted. The information presented in the report could be used to determine the major causes for events in a given area; however, there had been no benchmarks established by which performance could be measured and evaluated.

b. Conclusion

The licensee had implemented an effective corrective action program. Responsibilities were clearly defined for tracking and closeout of identified problems. The major strength was the simplicity of the program. Other strengths included the independent review of CRs for determining corrective actions, the effective tracking of CRs and CARs, and the inclusion of similar events during the evaluation of CRs for corrective action. Weaknesses included the failure to meet commitment dates for responses to CRs and CARs and the lack of a trending program.

The Performance Category for the area of Corrective Actions was considered to be Category One.

7. Procurement

The objective of this portion of the inspection was to evaluate the adequacy of the licensee's management controls associated with the area of procurement.

a. Observations

The following observations include the perceived strengths and weaknesses in the licensee's management controls that may not have specific regulatory requirements but will provide the bases for subsequent performance evaluations.

(1) The D. C. Cook Plant procurement activities were described by American Electric Power Service Corporation (AEPSC) and the Indiana and Michigan (I&M) Electric Company Procedures and Instructions. These procedures entailed the entire spectrum of procurement activities such as the preparation of specifications, procurement control, evaluation and

qualification of suppliers, audits, surveys, preparation and approval of requisitions and purchase orders, receipt inspection, storage, handling, issuing, training of personnel, and document control. Examination of these procedures and instructions revealed that they were well written and that they met or exceeded industry standards.

Persons interviewed appeared knowledgeable of the procedures. Examination of records and inspection of facilities confirmed, with few exceptions, that the procedures had been implemented.

(2) AHI-3115, Qualification of Stores Quality Control Receipt Inspectors, revision 0, specified the requirements for qualification of receipt inspectors. AHI-3070, Storeroom Training, revision 0, specified in detail the type, frequency, and length of training required prior to performing receipt inspection and other storeroom activities. A review of these procedures showed that they were comprehensive and addressed all facets of procurement activities from forklift operation to use of the plant catalogue system. Interviews with personnel and examination of their training files verified that the receipt inspectors were qualified, storeroom personnel had been trained, and that formal and on-the-job training was effective. Other site and corporate personnel interviewed also appeared to be adequately trained and knowledgeable of procurement procedures and activities.

(3) Formal surveillances and audits of procurement activities had been performed by site QA, corporate QA, and the Nuclear Design and Safety Review Committee. In addition, the Stores Supervisor formally inspected the storage facilities on a monthly basis. Examination of these surveillances, audits, and inspection reports revealed that checklists were used, corrective action had been implemented to correct the findings, and that these reports had been sent to management. Observations and interviews confirmed that the Procurement and Stores Departments had effectively utilized the findings of these audits and surveillances to improve their overall operation. Information obtained from outside reports (INPO, CASE, NRC, vendors, utilities, and IE Bulletins) had also been used to improve their procurement program in the areas of new procedure development, procedure revision, vendor inspections, storage and protection of equipment, and receipt inspections.

(4) AHP-3130.SMS.003, Plant Stores Control of Shelf Life Items, revision 0, provided comprehensive guidance for the control of shelf life items after they were received and required vendors to supply shelf life information applicable to their

products. If the vendor did not supply shelf life data on safety related products, then the QC inspector, in conjunction with the cognizant engineer, evaluated the product and determined a shelf life date. This appeared to be an excellent shelf life program. Special features of this shelf life program included:

(a) A computerized listing of all shelf life items, which included part number, description, quantity on hand, location, months of shelf life, and discard dates. This list was updated quarterly.

(b) Special controls associated with packaging, storing, identifying, and issuing of the shelf life items.

(c) A separate Cardex File for these shelf life items.

(d) Physical inspection of shelf life items every four months to verify storage location, condition of items, correct packaging, and correct discard dates.

Examination of documents, interviews with personnel, and observations during a walkthrough inspection of the storeroom verified that the program had been implemented.

(5) The licensee had procedures and instructions for evaluating items and assigning QA "N" classification to safety-related equipment and had prepared a specification which included QA "N" items. These procedures also provided a method to add or delete equipment from the "N" list. A significant strength of this program was that equipment identified by the NRC (IE Bulletins, Circulars, and Information Notices) as being deficient was made part of this "N" list. Cognizant plant and corporate office personnel were required to review this list to ensure that no discrepant material or condition was present in the facility.

(6) The generation and maintenance of the Qualified Suppliers List (Specification DCC-QA-101-QCN) had been assigned to AEPSC QA Department. The QA Department also provided a listing of NRC IE Bulletins, Notices, and Circulars which had been attached to the front of the Qualified Suppliers List. This list was utilized to ensure that the facility did not order any of this material, that parts were not in stores, and that materials received were not on the discrepant list.

(7) Inspection of the storerooms, warehouses, and outside storage areas was performed. Strengths and weaknesses were as follows:

(a) Small items were stored in separate, sealed, plastic packages, each individually identified.

(b) Extensive usage of drawers for storage and protection of gaskets, "O" rings, and other small parts was noted. The "O" rings were segregated in plastic bags and dated with shelf life expiration dates. Large gaskets were kept on a flat surface to prevent warpage.

(c) Approximately 24 flanged spool pieces procured under Purchase Order No. 02682251-6 and accepted by ASP 951 did not have protective caps on the weld prep ends as required by ANSI N45.2.2.-1972.

This item was discussed with the licensee and was presented to the Senior NRC Resident Inspector as a potential enforcement finding.

This walkthrough inspection verified the implementation of the program for receipt inspection, segregation, storage, identification, accessibility, accountability, and issuance of materials. The management controls in this area were excellent.

(8) The licensee employed a coding system for specifying on the purchase order standard instructions required for any item or services procured. The initiator, reviewer, and approver only had to enter the applicable codes in red ink on the requisition and the computer printed the standard instruction or statement directly on the purchase order. Persons interviewed stated that this coding system minimized errors and helped to ensure that all quality, contractual, and shipping requirements were correctly printed on the purchase order.

(9) AHI-2160 provided guidance for the control and approval of chemicals, cleaning agents, detergents, and other consumables that were used in the plant. A listing of the approved consumables was posted in the storeroom and had been updated to remove or add items. To further complement the control, the storeroom had affixed an orange colored circular label to approved consumables. If any consumables used in the auxiliary building, containment, or near primary or other safety related systems did not have the orange label, the items were removed from the area. The orange label provided an effective method for identifying whether these items were approved for use.

b. Conclusions

The most significant strengths in the procurement area included comprehensive procedures that addressed all facets of the procurement program; each department's understanding of the overall procurement process and their interfacing responsibilities; effective usage of audit and surveillance findings to improve procedures and the implementation of procedures; comprehensive programs for the control of shelf life items, chemicals, cleaning agents, epoxies, and other consumables; effective use of vendor and component histories, NRC IE Bulletins, and other outside reports to improve their programs and; effectiveness of warehouse activity controls.

The only significant weakness identified involved the improper storage of 24 flanged spool pieces.

The Performance Category for the area of Procurement was considered to be Category One.

8. Management Exit Interview

An exit meeting was conducted on August 6, 1982, at the facility with the licensee representatives identified in Attachment A.

The Team Leader discussed the scope of the inspection and stated that the inspection would continue with further in-office data review and analysis by the team members. He stated that the team would draw a conclusion for each functional area inspected, and classify the management controls for those areas as either Category One, Two, or Three. The issuance of an appraisal report containing observations, the conclusions for each functional area, and an Executive Summary was discussed. The licensee was informed that a written response would be requested for any areas designated as Category Three and possibly for some significant weaknesses in other areas. They were told that some of the observations classified as weaknesses could become potential enforcement findings, and that these would be presented to the Region III Senior Resident Inspector for further disposition.

The importance of effective management and the known programmatic and personnel weaknesses, as related to the safe operation of the facility, were discussed. The team members presented their observations for each functional area. The licensee was informed that the observations included the perceived strengths and weaknesses in their management control systems, and that the observations would be utilized in the evaluation of the licensee's programs.

ATTACHMENT A

A. Persons Contacted

The following lists (by title) the individuals contacted during this inspection. The table to the right of the listing indicates the areas (the numbers correspond to sections in the report) for which that individual provided significant input. Other individuals were also contacted during the inspection including technical and administrative personnel.

Title of Individual	2	3	4	5	6	7
Corporate Office						
Vice Chairman - Engineering and Construction	x	x	x	x	x	x
*Executive Vice President - Construction and N.Y. Engineering	x	x	x	x	x	x
Senior Vice President - Electrical Engineering	x	x		x	x	x
Vice President - Purchasing and Stores						x
Vice President - Mechanical Engineering	x	x		x	x	x
*Assistant Vice President - Nuclear Engineering	x	x		x	x	x
Assistant Vice President - Design	x		x			
*Manager - QA	x			x	x	x
D. C. Cook Project Manager			x	x	x	x
Manager - Civil Engineering Division						x
General Office Purchasing Director						x
Assistant Division Manager - Mechanical Engineering Division	x		x	x	x	
Assistant Division Manager - Electrical Division			x			
Assistant Division Manager - Nuclear Engineering Division (2)	x		x	x	x	
Senior QA Auditor (2)	x	x				
Senior QA Engineer (4)	x	x		x	x	x
QA Auditor		x				
QA Engineer						x
Section Manager - Nuclear Engineering (3)	x	x	x	x	x	
Section Manager - Electrical Generation		x	x	x	x	
Section Manager - Mechanical Engineering			x			
Engineers (9)	x	x	x	x	x	x
Buyer (2)						x
Purchasing Agent						x
Document Control - Purchasing (2)						x

Site	2	3	4	5	6	7
*Plant Manager	x	x	x	x	x	x
*Assistant Plant Manager (2)	x	x	x	x	x	x
*Operations Superintendent	x	x	x	x	x	
*Maintenance Superintendent	x			x	x	x
*Technical Superintendent	x	x		x	x	x
*QA Supervisor	x	x	x	x	x	x
Maintenance Supervisor (6)		x		x	x	x
C&I Supervisor				x	x	x
*Production Supervisor (4)	x			x	x	x
QC Supervisor		x		x	x	x
Unit Supervisor (4)			x	x	x	
Shift Supervisor (6)	x	x	x	x	x	
ISI Supervisor		x				
Administrative Supervisor		x				
*Stores Supervisor				x	x	x
Chemical Supervisor						x
Nuclear Engineering Supervisor			x			x
*Outage/Design Change Coordinator			x			
Reactor Operator (4)			x	x	x	
Equipment Operator		x				
Assistant Equipment Operator (2)			x			
Shift Technical Assistant				x	x	
Stores Administrator						x
Chemist						x
Training Coordinator						x
Receipt Inspector (2)						x
Performance Engineer (6)			x	x	x	
Nuclear Engineer	x		x			
Engineering Technician		x		x	x	
QC Technician (3)		x	x			x
C&I Technician (2)				x	x	
Mechanic (4)		x		x	x	x
QA Auditor (3)	x	x		x	x	x

*Attended meeting on August 6, 1982.

B. Documents Reviewed

The following lists the broad categories of documents reviewed by the inspection team members to the extent necessary to satisfy the inspection objectives stated in Section 1 of the report. Those specific documents referenced in the report are listed by title and revision number, if applicable, where they first appear.

(1) Technical Specification (TS), Section 6.0, Administrative Controls
(2) Final Safety Analysis Report (FSAR)
(3) AEPSC Policy Statements
(4) Cook Plant Policy Statements
(5) AEPSC General Procedures (GPs)
(6) AEPSC Mechanical Engineering Division Procedures
(7) AEPSC Nuclear Engineering Division Procedures
(8) AEPSC QA Organization and Procedures Manual (QAPs)
(9) Administrative Department Head Procedures (AHPs)
(10) Plant Manager Procedures (PMPs)
(11) Maintenance Head Procedures (MHPs)
(12) Plant Manager Instructions (PMIs)
(13) Operations Department Head Instructions (OHIs)
(14) Maintenance Department Head Instructions (MHIs)
(15) Administrative Department Head Instructions (AHIs)
(16) QA Department Head Instructions (QHIs)
(17) Technical Department Head Instructions (THIs)
(18) Nuclear Safety and Design Review Committee (NSDRC) Charter and Procedures Manual
(19) Plant Nuclear Safety Review Committee (PNSRC) Charter
(20) NSDRC Subcommittee Procedures
(21) Selected Meeting Minutes from 1981 and 1982 for the PNSRC and NSDRC
(22) Selected NSDRC Audit Reports, 1979 to 1982
(23) Selected Corporate and Site QA Audit Reports, 1979 to 1982
(24) Selected Site QA Surveillance Reports, 1979 to 1982
(25) Selected Condition Reports (CRs) and Corrective Action Reports (CARs)
(26) QA Auditor Training Records
(27) Qualified Suppliers List
(28) 1981 QA Manager's Annual Report
(29) QA Audit Status Reports, 1980 to 1982
(30) Selected Department Weekly Activity Reports
(31) Selected Plant Manager's Weekly Activity Reports
(32) Selected Quarterly Condition Report/Repetitive Occurrence Report
(33) Nuclear General Employee Training Program (GET)
(34) Selected Requests for Facility Changes (RFCs), 1976 to 1982
(35) Various Standing Orders

(36) Computer List of Job Orders
(37) Selected Job Orders (JOs)
(38) Unit 1 and Unit 2 Control Room Logs
(39) Unit 1 and Unit 2 Jumper Logs
(40) Unit 1 and Unit 2 Lifted Wire/Blocked Relay Logs
(41) Selected Clearance Permits
(42) 1981 Machinery History Evaluation Report
(43) Licensed and Non-Licensed Personnel Training Records
(44) Organization Charts for AEPSC and D. C. Cook
(45) Selected Corporate and Site Personnel Position Descriptions
(46) Selected Purchase Order Packages, 1979 to 1982
(47) Stores Operating Procedure Manual
(48) Various Stores and Warehouse documentation on receipt inspection and storage of materials