INDIANA & MICHIGAN ELECTRIC COMPANY

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July 27, 1982 A/D SLO

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Donald C. Cook Nuclear Plant Unit Nos. 1 and 2 Docket Nos. 50-315 and 50-316 License Nos. DPR-58 and DPR-74 SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

Mr. James G. Keppler, Regional Administrator U.S. Nuclear Regulatory Commission Office of Inspection and Enforcement Region III 799 Roosevelt Road Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

We received the Systematic Assessment of Licensee Performance (SALP) Report for the Donald C. Cook Nuclear Plant which was Enclosure 2 to your letter of June 25, 1982 to Mr. John E. Dolan. Following receipt of your report, we met with you and members of the NRC Staff on July 7, 1982 to hear your presentation regarding your assessment of Cook Nuclear Plant performance.

We appreciate the opportunity to comment on your report. The SALP Report will provide valuable assistance in improving many aspects of Plant and Corporate performance, and further strengthens our determination to be recognized by the NRC as the finest licensee in Region III.

Excluding those few corrections mutually agreed upon in our meeting July 7, we do not take issue with the facts presented in the report and will not address specific findings or conclusions. We accept that your assessments intentionally focus upon areas needing the greatest improvement. On the other hand we possess a number of existing strengths which provide confidence that Cook Nuclear Plant is being safely operated. Here are some examples.

We believe, and know that the NRC believes, that having an adequate staff of highly qualified and trained operators is a necessary ingredient for safe operation. We have aggressively built up our staff of licensed personnel so that five-shift operation that meets the recently augmented NRC staffing requirements was able to be instituted.

In addition, we have recently hired twelve previously trained operators who are now under going accelerated training. In this manner we are working to achieve a full six-shift capability in the near future.

The training program for licensed and non-licensed operators is extremely important to the safe operation of any nuclear power plant. We believe our training program for licensed operators to be of the highest quality. One measure is new operator licensing test results. For example, just during 1982, the NRC administered Senior Reactor Operator examinations to thirteen candidates. Only two failures occurred which appears to be above average performance for the Region.

During the SALP period, the Cook Nuclear Plant on both a plant and a unit basis generated more kilowatt-hours than any other in Region III. Mr. Zack Pate, Vice President of INPO, recently testified before Congress that there is a direct relationship between nuclear plant reliability and safety. This high availability of the Cook Nuclear Plant is another indicator of care and attention to the safe operation and maintenance of the Plant.

We are the first operating nuclear plant to install a computerized Radiation Exposure and Maintenance (RE+M) System, which incorporates access control to radiation areas. This system will allow not only tighter control on all radiological work practices, but will provide valuable information on personnel exposures and help to achieve ALARA goals.

One of the most important indices in the success of a radiological control program is the total personnel exposures throughout a particular period. As indicated in the SALP Report, personnel exposures at the Cook Nuclear Plant remain well below average for pressurized water reactors. Recently published data by INPO demonstrates that exposures at Cook Nuclear Plant continued to be well below average during 1981.

There has been and continues to be a dearth of trained Health Physics Technicians in the nuclear industry. In response to this program we have provided financial assistance to students in a cooperative program at a college in the region to augment the number of trained Health Physics Technicians. We believe this "grow your own" attitude is healthy for the entire industry and expect it to be beneficial to operation of the Cook Nuclear Plant.

We have developed and installed a computer-based program to facilitate surveillance test scheduling. This program should enhance our capability to meet the many NRC licensing requirements.

We have established Radwaste Supervisory positions and engaged supervisors. These supervisors have provided personnel training as well as closer supervision to radwaste handling activities. This has resulted in reduction of the radwaste generation volumes in the recent past.

A FEMA exercise was conducted on October 9, 1980 to test the effectiveness of both the State and local emergency plans and their interaction with the Cook Plant emergency organization. Following the conclusion of the drill, it was "the unanimous opinion of the twenty-three federal observers that if there were an accident at the Cook Nuclear Power Facility, the people of this area (Berrien County) would be protected based on our observation of the exercise ... " (quote from informal FEMA Critique of the DCCNP exercise conducted on October 9, 1980 by Mr. Patrick McCullough, FEMA Regional Director). Since then, to maintain our emergency response capability, we have conducted numerous internal company drills -- twelve in 1982 alone. Additionally, NRC/FEMA conducted exercises on November 18, 1981 and on March 30, 1982. Installation of new computers in our technical support center will in the near future enhance the capability of our operators and emergency teams to respond to plant emergency situations through the display of real-time plant parameters and the status of safety equipment.

We have established a Security Supervisor on each shift to manage a contracted security guard force. Our Shift Security Supervisors conduct audits and write inspection reports to make sure that the Security Plan and procedures are being satisfied. We believe this shift supervision, coupled with a contracted guard agency, has the best features of the various methods being employed in the industry.

We installed a computerized security access control system in the Cook Nuclear Plant. This state-of-the-art system monitors location of all personnel on the site, permits only properly cleared personnel access to secure areas, and alerts the guard force to any attempted violation of internal security barriers. The NRC has invited several other licensee representatives to visit the Cook Nuclear Plant to view this model system. This system has the additional capability to further restrict access to sensitive areas during an emergency.

We appreciate the opportunity to provide these comments.

In the interest of providing a timely response we have not been able to include all of our review procedures prior to signature by the undersigned.

Very truly yours,

Vice President

RSH:mm

cc: John E. Dolan - Columbus

M. P. Alexich

W. G. Smith, Jr. - Bridgman R. C. Callen

G. Charnoff

Joe Williams, Jr.

NRC Resident Inspector at Cook Plant - Bridgman

I. INTRODUCTION

The NRC has established a program for Systematic Assessment of Licensee Performance (SALP). The SALP is an integrated NRC Staff effort to collect available observations and data on a periodic basis and evaluate licensee performance based upon these observations. SALP is supplemental to normal regulatory processes used to insure compliance to the rules and regulations. SALP is intended from a historical point to be sufficiently diagnostic to provide a rational basis: (1) for allocating future NRC regulatory resources, and (2) to provide meaningful guidance to licensee management to promote quality and safety of plant construction and operation.

A NRC SALP Board composed of managers and inspectors who are know-ledgeable of the licensee activities, met on June 10, 1982, to review the collection of performance observations and data to assess the licensee performance in selected functional areas.

This SALP report is the Board's assessment of the licensee safety performance at Donald C. Cook Nuclear Power Plant for the period October 1, 1980 to April 1, 1982.

The results of the SALP Board assessments in the selected functional areas were presented to the licensee at a meeting held July 7, 1982.

II. CRITERIA

The licensee performance is assessed in selected functional areas depending whether the facility is in a construction, pre-operational or operating phase. Each functional area normally represents areas significant to nuclear safety and the environment, and are normal programmatic areas. Some functional areas may not be assessed because of little or no licensee activities or lack of meaningful observations. Special areas may be added to highlight significant observation.

One or more of the following evaluation criteria were used to assess each functional area.

- 1. Management involvement in assuring quality
- 2. Approach to resolution of technical issues from safety standpoint
- 3. Responsiveness to NRC initiatives
- 4. Enforcement history
- 5. Reporting and analysis of reportable events
- 6. Staffing (including management)
- 7. Training effectiveness and qualification.

However, the SALP Board is not limited to these criteria and others may have been used where appropriate.

Based upon the SALP Board assessment each functional area evaluated is classified into one of three performance categories. The definition of these performance categories is:

Category 1. 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 2. 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 3. 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.

III. SUMMARY OF RESULTS

Functional Area Assessment		Category 1	Category 2	Category 3
1.	Plant Operations		х	
2.	Radiological Controls		X	
3.	Maintenance		X	
4.	Surveillance and Inservice Inspection			Х
5.	Fire Protection and Housekeeping			X
6.	Emergency Preparedness			x
7.	Security and Safeguards		X	
8.	Refueling		X	
9.	Licensing Activities			x
10.	Quality Activities			х
11.	Environmental Controls		х	

IV. PERFORMANCE ANALYSES

1. Plant Operations

a. Analysis

Fifteen inspection reports during this eighteen month evaluation period documented the inspection efforts in this area and other functional areas by the resident inspectors. In addition one inspection of the requalification training program was conducted by a regional inspector. A total of eleven noncompliances were identified in this area involving a wide scope of activities. Several for improper reporting of events were repetitive. The noncompliances in chronological order follow:

- (1) Severity Level IV Failure to assure a Containment Spray System was operable (50-316/80-17).
- (2) Severity Level V Failure to notify the NRC Operations Center of an event requiring initiation of shutdown for low concentration in the Boron Injection Tank (50-315/81-01).
- (3) Severity Level V Failure to provide continuous monitoring of steam generator blowdown (50-316/81-01).
- (4) Severity Level V Failure to submit a timely report on a safety inspection (50-315/81-03).
- (5) Severity Level V Failure to report an unplanned release (50-315/81-05(05)).
- (6) Severity Level V Failure to make Technical Specification Type B and C leak rate reports (50-315/81-13).
- (7) Severity Level V Failure to complete design, facility or procedure changes reviews, and emergency procedures review required by the requalification training program, 34 cases (50-315/81-17(20)).
- (8) Severity Level VI Failure to properly document requalification training program lesson plans (50-315/81-17(20)).
- (9) Severity Level III Failure to make the required 24 hour telephone and 14 day written reports (50-316/81-21).

Where an inspection for both units is documented in the same report, the report number for Unit 2, Docket No. 50-316 will follow in parenthesis.

- (10) Severity Level IV Failure to take timely and proper corrective action following the failure of a cold leg RTD (50-315/81-24).
- (11) Severity Level VI Failure to make a 30 day report on a degraded bus voltage relay (50-316/81-26).

Six of the noncompliances were for failure to make required reports or to make timely reports, four for failure to follow procedures, and one for incomplete documentation. One noncompliance for failure to properly report a breach in containment, Item (9) above, is part of an escalated enforcement action with Civil Penalty. The actual event, is described in Section 4, Surveillance.

Nine LER's relating to this area were caused by personnel errors, six at Unit 1 and three at Unit 2. Sixty percent of these occurred in the last half of the period and thirty percent in the last quarter indicating an increasing occurrence rate in the period. Six of the nine were for incorrect valve or breaker alignments and three were for failure to follow operating procedures.

Two events (LER's 50-316/81-67 and 50-315/81-52) were of particular concern since they reflected a licensed operator's cognitive decision to operate a system (charging and letdown and containment isolation, respectively) in a manner not allowed by the Technical Specifications.

Unit 1 experienced nine automatic trips during the evaluation period, four caused by operator error and five by equipment failure. Of the four caused by errors, two were due to incorrectly conducted instrument surveillance tests, one to an incorrect valve lineup on the steam side, and the last to unfamiliarity with turbine controls.

Unit 2 experienced nine reactor trips, one being a manually initiated turbine trip. Four of the trips were related to personnel errors; two by loss of vacuum in the main condenser, one resulted from a low steam generator level, and one resulted from a turbine valve misalignment.

No significant safety concern is associated with these trips and each was reviewed to verify proper safety system operation and operator actions.

Various operating problems and events identified during the period resulted in an enforcement meeting on August 4, 1981, with followup meetings on November 2, 1981 and March 16, 1982. Inspections conducted during May to August 1981, resulted in a proposed Civil Penalty on December 30, 1981, for a violation of containment integrity. This event and

noncompliance has been assigned to Section 4, Surveillance. Specific concerns were raised during these meetings relative to the unusually high number of significant events having potential safety significance.

Following the August 4, 1981, conference, the licensee was requested to address steps to be taken to improve performance at the D. C. Cook facility (See Section G.3). The licensee broadly outlined a 12-step corrective action program relative to Region III's concerns in a letter dated October 16, 1981, and supplemented this letter on January 25, 1982. A follow up management meeting was held on March 16, 1982, during which the NRC expressed its impatience with the pace and scant evidence of improvements. The licensee stated that they felt significant progress was being made and that in another six months the NRC would see significant improvement.

As a result of previously stated concerns, the Chairman of the Board for AEP issued a policy statement on October 27, 1981. To date the licensee has been slow in developing this policy into tangible goals or practices.

A new Plant Manager and a new Operations Superintendent were hired around the first of 1982. The Plant Manager is working toward changing attitudes, clarifying policies, and revising administrative controls; but is faced with a substantial task.

The licensee is actively pursuing improvement in their operator staffing levels. During December 1931, twelve reactor operator exams were administered with four failures. Five senior reactor operator exams were also administered with one failure. In April and May 1982, eight more operators will be examined for senior reactor operator licenses to provide the requisite number of licensed personnel to meet expanded shift staffing requirements. On March 1, 1982, staffing was adequate to allow the establishment of a five shift rotation, allowing one shift to be involved in training for a 40-hour week each shift rotation. The training staff has been increased in size and experience both by hiring new personnel and by promoting licersed operators and other plant omployees to instructor positions. Additional emphasis has been given to the training program to bring it into accordance with NUREG-0737 requirements and suggestions made by the Institute of Nuclear Power Operations.

b. Conclusion

The licensee is rated Category 2 in this area. The day-to-day performance in this area is satisfactory. However, due to ineffective and poorly implemented corrective actions, the demonstrated lack of understanding of regulatory requirements, and lack of improvement over the previous assessment period,

the Category 2 rating is marginal. The licensee's performance has trended downward; however, management has initiated improvement efforts toward the end of the period that appear to be ameliorating this trend.

c. Board Recommendations

The Board recommends additional licensee attention in this area and continued implementation of the 12-step corrective action program to upgrade performance in this and other areas.

2. Radiological Controls

a. Analysis

Three inspections, health physics appraisal, refueling radiation protection/transportation, and review of corrective actions to the health physics appraisal, were performed during the assessment period by region based inspectors. The resident inspectors also inspected in this area. Three items of noncompliance were identified as follows:

- (1) Severity Level V Failure to use frisker on exit from the Auxiliary Building (50-315/80-23(19)).
- (2) Severity Level VI Failure to properly post required NRC documents (50-315/81-12(15)).
- (3) Severity Level VI Failure to post a NRC Violation Notice (50-315/81-12(15)).

In addition, a Region V inspector at the Beatty, Nevada low-level waste burial site identified two transportation noncompliances as follows:

- (4) Severity Level III Failure to properly package radioactive material for shipment (50-315/81-07(11)).
- (5) Severity Level III For inadvertent shipment of liquid radioactive materials (50-315/81-07(11)).

The State of Nevada temporarily suspended shipments from the licensee because of the transportation noncompliances. The licensee's corrective actions were generally timely and responsive for the identified noncompliances.

The health physics appraisal inspection identified weaknesses in the following aspects of the licensee's radiation protection program: staffing and communications; HP technician training; exposure control; access and contamination control; and instrumentation. In general, the licensee has proposed

acceptable resolutions for these weaknesses. Progress toward implementing corrective actions was noted during the November 1981 inspection, but additional corrective action is needed in staffing and HP technician training. A proposed training program revision should improve definition, applicability, and effectiveness of training for the HP technicians.

Personal exposures remained well below average for pressurized water reactors both in total man-rem and when normalized for power (man-rem/MWe).

Liquid and gaseous radioactive releases were about average for pressurized water reactors and were well within Technical Specification limits. A number of minor unplanned gaseous releases occurred due to leakage from process systems as noted in Section IV.3. Radiological aspects of the releases were not significant.

Other than the two items of noncompliance, no significant problems were identified with the radwaste transportation program during this assessment period.

b. Conclusion

The licensee is rated Category 2 in this area. This is based on:

- (1) the identification of several items of noncompliance with generally timely and effective corrective action.
- (2) the generally satisfactory progress toward implementing solutions to the weaknesses in the radiation protection program identified by the health physics appraisal inspection.
- (3) the positive performance in limiting exposure of personnel at the plant and average performance in terms of liquid and gaseous effluents.

c. Board Recommendations

No changes in the inspection program are needed. The basic program should be continued.

3. Maintenance

a. Analysis

Examination of this functional area involved parts of fifteen inspections against the Technical Specifications and plant procedures. Two inspections were also performed by regional based specialists during this evaluation period. Two non-compliances were identified as follows:

- (1) Severity Level VI Failure to test and run the second emergency diesel generator before and while the first was being removed from service for maintenance (50-315/81-14).
- (2) Severity Level V Failure to use a safety relief valve during a hydrostatic test of the essential service water system tollowing maintenance and to reference the test pressure on the procedure (50-315/81-04(04)).

The noncompliances identified above appear to have resulted from a lack of attention to procedural guidance.

In general plant maintenance activities appear to be adequately controlled, scheduled and tracked. Reviews are in general thorough and timely; and records are usually complete and well maintained. However, there is a perception that some corrective actions taken may not be effective. This is based in part on the number of unp anned releases that have resulted in partial or total personnel evacuation of the auxiliary building. Efforts to date have been only directed to the immediate repair or replacement of components. The frequency of unplanned releases appears to be increasing with two occuring in the first half of the evaluation period and six during the second half. The licensee has committed to an extensive leak reduction program, implemented by STP.034. The frequency of supervisory reviews and audits of plant equipment conditions and cleanliness appear to be insufficient to prevent the numerous forced shutdowns to repair coolant leaks. Additionally, several LER's have been submitted on the turbine stop valve proximity switches which repeatedly failed due to their mountings. These and other repetitious failures reported indicate a lack of trending and equipment history information and the use of these in the maintenance program.

There has been recent evidence of improvement in planning by site management. The training and qualification of personnel is basically done on-the-job and is handled within the respective department disciplines.

There is a need, recognized by the licensee, for a complete procedure system review to evaluate and make improvements in the maintenance areas. The licensee has committed to this task following a similar effort presently nearing completion in the operations ar a.

b. Conclusion

The licensee is rated Category 2 in this area. While several weaknesses are evident, overall performance was considered satisfactory.

c. Board Recommendations

The Board recommends no change in inspection emphasis in this area. The licensee needs to place more emphasis on trending and assessing the effectiveness of maintenance activities.

4. Surveillance and Inservice Inspection

a. Analysis

Seven inspections were conducted by regional specialists and the resident inspectors made observations in this area. Technical Specifications, plant procedures and 10 CFR 50, Appendix B were the basis for these inspections which covered core physics, containment integrated leak rate tests, reactor coolant leakage tests, inservice inspections, and normal equipment tests. Seven noncompliances were identified as follows:

- (1) Deficiency Failure to calibrate the feedwater flow transmitters within 24 hours of a surveillance test (50-315/80-16).
- (2) Severity Level VI Failure to establish reference values for pump inlet pressure (50-315/80-20(16)).
- (3) Severity Level VI Failure to run centrifugal charging pumps for full 15 minute verification test (50-315/80-20(16)).
- (4) Severity Level IV Failure to maintain spray additive tank at proper level (50-316/81-05).
- (5) Severity Level IV Failure to take adequate corrective action to assure that required surveillance tests were completed within the allowed time period (50-315/81-13).
- (6) Severity Level V Three potentially excessive containment leakage paths were identified and corrected without performing the required leakage measurements (50-315/81-15).
- (7) Severity Level III Failure to maintain containment integrity for about 50 hours during hot standby after performing a surveillance test (50-316/81-21).

In addition two surveillance type noncompliance items are reported in Section 5, Fire Protection.

Five of the items reflect weaknesses in controls for preparing and checking test procedures and in assuring tests are conducted on time using approved procedures. Two items, 4 and 5, relate to failure to take effective corrective action.

In Item 4, the tests had been discovered to be inadequate prior to the event. Corrective action had been initiated to change the procedure but was lost in a clerical error and no followup was made to assure completion. A recent change in QA reviews of previous commitments should help prevent errors of this type.

Item 5 was the result of contractor procedures which established inservice inspection requirements per ASME Code Section IX that did not meet Technical Specification frequencies. Inadequate procedure reviews prior to implementation did not catch these discrepancies. The licensee has corrected these procedures and has reviewed all surveillance requirements to establish a computerized scheduling and tracking system. The categorization of the surveillance program should prevent problems of this type.

Eight LER's caused by personnel error are assigned to this area, four at each Unit. Three of the events resulted in escalated enforcement action and one also resulted in a Severity Level III noncompliance with a proposed Civil Penalty. The latter, Item 7, was precipitated by the failure to replace a sensing line plug following the containment leak rate test. The licensee was also cited and a Civil Penalty proposed for not promptly reporting this event (See Section 1). The second event, the upper and lower containment spray headers on the East Train in Unit 2 were found isolated during power operation (LER 50-316/80-33). This was attributed to personnel error by the operator returning the system to normal following a surveillance test.

The third event, which occurred at the end of the SALP 1 period, concerned the inoperability of a residual heat removal train following maintenance and several subsequent surveillance tests (50-315/80-20(16)(LER 80-32). The valving and filling operation following maintenance resulted in pump air binding and questionable operability. This event and the second event above were reviewed during the enforcement conference on January 13, 1981. The evaluation of the significance of the degraded residual heat removal system during a LOCA, the determination of how the air got into the system, and corrective actions to be taken has not yet been provided to the NRC.

Two of the inspections conducted by regional specialists reviewed the inservice inspection program during this period. The licensee's contractors provide adequate management controls in this program. The qualification and training of ISI personnel are in accordance with SNT-TC-1A, 1975 Edition and adequate control of records is maintained. The overall effectiveness and attitudes of the licensee and ISI personnel are good. The inspections were observations of NDE and welding activities that include preparation of welds, welding performance, and

documentation. There were no significant strengths or weaknesses in this program.

b. Conclusion

The licensee is rated Category 3 in this area due to the number and severity of noncompliances and significant events which indicate weaknesses in management controls. Signs of improvement are evident as only two noncompliances and two LERs have been assigned to this area in the last half of the period.

c. Board Racommendations

The Board recommends continued NRC attention in this area to monitor the licensee's review of previous commitments and the establishment of the computerized surveillance scheduling system.

5. Fire Protection and Housekeeping

a. Analysis

One inspection was performed by the regional inspection staff and observations were made by the resident inspectors during this evaluation period. In addition, an investigation was conducted in this area following allegations that fire step materials were being installed improperly (50-315/81-08(12)). One item of noncompliance was identified during the investigation concerning improper quality controls and this is included in Section 10, Quality Activities. As a result of the allegations, one of which concerned the failure to establish fire watches during fire stop installations, one noncompliance was reported by the resident inspectors as follows:

- Severity Level IV - Failure to establish a fire watch when fire barriers were not functional (50-315/80-19).

The findings from the regional inspection included eight violations of regulatory requirements, one deviation from a commitment, three unresolved items, and one open item. A Civil Penalty was proposed on December 30, 1981, as a result of these inspection findings. The licensee's response to the violations is currently under review. The noncompliances identified during this inspection (50-315/81-11(14)) are as follows:

- (1) Severity Level III Failure to demonstrate operability of fire detector supervisory circuits.
- (2) Infraction Failure to Jemonstrate operability of spray and sprinkler systems.

- (3) Severity Level IV Failure to make tests of the fire suppression water system in the required time period.
- (4) Severity Level IV Failure to provide acceptance criteria on data signoff sheets for tests of fire protection systems.
- (5) Severity Level IV Failure to provide written procedures for establishing, implementing and maintaing the Emergency Plan (two quarterly Fire Brigade drills were missed).
- (6) No Severity Level assigned Civil Penalty for material false statement regarding fire resistance of 12 specified doors.
- (7) No Severity Level assigned Civil Penalty for material false statement regarding the fire resistance of four feedwater pump room doors.
- (8) No Severity Level assigned Civil Penalty for material false statement regarding the establishment of administrative measures for control and storage of combustible materials.

In Items 1, 2, and 3, Technical Specification surveillance frequencies were exceeded for the spray and sprinkler systems, fire detection systems, and fire water system protecting safety-related equipment and areas. Limiting Condition for Operation Action Statement requirements were not satisfied either before or after the violation was identified to licensee management. Equipment degradation was observed when the testing was performed on the fire detection system and fire containment system. Two material false statements, Items 6 and 7, were made in submittals from the licensee concerning fire containment systems for safety-related areas.

In Item 4, the surveillance procedure for the fire protection system did not contain acceptance criteria which resulted in the acceptance of erroneous data.

In Item 5, administrative controls had not been developed to fully implement the fire brigade training program. The implemented program in this area led to violation of a license requirement. A material false statement was made in a submittal from the licensee concerning the administrative control program for combustible materials, Item 8.

The Loviation identified during this inspection concerned the fire containment system for the Unit 1 and 2 Diesel Driven Fire Pump Rooms. The unresolved items identified during this inspection concerned unnecessary degradation of the fire suppression system automatic actuation for the Unit 1 and 2 Control Room Cable Vaults, incomplete surveillance testing programs for certain spray and sprinkler systems, and inadequate fire prevention training of general employees and contractors.

The open item identified concerned the licensees housekeeping and cleanliness program.

Recent actions taken by the licensee included the ..iring of a full time fire protection coordinator as part of the plant staff. Plant personnel are gradually becoming more aware of fire protection requirements.

Subsequent to the SALP-2 review period, a special team inspection involving personnel from Region III and the Offices of Inspection and Enforcement and Nuclear Reactor Regulation was conducted in April 1982. The purpose of the inspection was to verify compliance with the applicable fire protection requirements in 10 CFR 50.48 and Appendix R to 10 CFR 50. Although the licensee had stated that the Cook Plant was in compliance with Appendix R in a letter to the NRC dated March 27, 1981, many items of noncompliance with these requirements were identified during this inspection. A Confirmatory Action Letter was issued on April 16, 1982, to assure immediate corrective action on significant noncompliances identified in the licensee's emergency procedures for safe shutdown and cooldown in the event of a fire. The findings of this special inspection are under review to determine appropriate enforcement action.

b. Conclusion

The licensee is rated Category 3 in this area. The licensee has not properly implemented the fire protection program and appears to have very weak management control over the program that exists. Until recently, little expertise in the area of fire protection existed onsite, which resulted in major deficiencies going undetected for long periods of time. The licensee had been relatively unresponsive to NRC concerns and findings.

c. Board Recommendations

The Board recommends that the licensee place more emphasis in this area. NRC inspection activities should be increased until program implementation has improved.

Emergency Preparedness

a. Analysis

Emergency Preparedness activities at the D. C. Cook site were observed during the licensee's Emergency Preparedness Implementation Appraisal (EPIA), emergency exercise, and a special inspection of the licensee's early notification system. Based on NRC observations, the licensee's management has not been adequately involved to ensure that emergency preparedness requirements were met. Deficiencies and noncompliance identified during the EPIA could not be resolved by the plant management and an enforcement meeting with senior America Electric Power (AEP) officials had to be held to get prompt corrective action.

Two items of noncompliance were identified during the EPIA and tests of the warning system:

- (1) Severity Level III Failure to provide an adequate Emergency Operations Facility (EOF) (50-315/82-05(05)).
- (2) Severity Level IV Failure to provide emergency preparedness information to the transient population at Warren Dunes State Park (50-315/82-03(03)).

In addition, subsequent to the appraisal, the NRC review of the AEP Emergency Plan revealed apparent misrepresentation of facts relevant to the state of emergency preparedness of the EOF. Escalated enforcement actions are currently being considered by the staff.

In April 1981, the AEP organization acknowledged the requirement for an offsite EOF; however, they failed to take appropriate actions. Further, the licensee failed to follow NRC regulations and practices pursuant to 10 CFR 50.12 (Specific Exemption) when it became apparent to them that their EOF concept of operations was in noncompliance with the regulations.

In addition to the item of noncompliance, the EPIA found inadequate accident assessment capability, inadequate protective response for onsite emergency personnel, inadequate emergency action/classification system, and inadequate radiological exposure control for onsite emergency personnel. The licensee made acceptable commitments to correct the above deficiencies only after repeated telephone conversations and an enforcement meeting with the Region III Administrator.

During the SALP period, the licensee conducted an emergency exercise with participation of offsite governmental agencies. However, the onsite part of the exercise did not demonstrate

onsite assemble/accountability or activities and operation of the EOF. Had the licensee attempted to activate the EOF, it would not have functioned due to its inadequate state of preparedness. Exercise weaknesses identified by the NRC are currently being examined by the licensee.

b. Conclusion

The licensee is rated Category 3 in this area because of the long delays and repeated NRC effort needed in resolving significant issues in emergency preparedness; the lack of an effective EOF, a major component in emergency preparedness; and a management that lacks a complete understanding of the function and purpose of emergency preparedness.

c. Board Recommendations

Increased NRC inspection effort should be given to the D. C. Cook plant. Closer management attention is required in the area of emergency preparedness including the need for establishing a corporate management in close proxomity of the plant to ensure timely coordination of utility and outside agency emergency response efforts.

7. Security and Safeguards

a. Analysis

Four inspections were completed by region based inspectors during the evaluation period. Two inspections reviewed physical security and two material control and accountability. The resident inspectors made periodic tours of accessible protected and vital areas and identified one item of noncompliance. Five noncompliances were identified during the evaluation period as follows:

- (1) Severity Level IV Failure to maintain a vital area barrier (50-315/81-04).
- (2) Severity Level V Failure to properly search a vehicle (50-315/81-04(04)).
- (3) Severity Level V Failure to properly test security equipment (50-315/81-04(04)).
- (4) Severity Level IV Failure to maintain physical barrier integrity of a vital area (50-316/81-16).
- (5) Severity Level V Failure to conduct search of visitors (50-315/81-22(25)).

The above listed items were satisfactorily corrected in a reasonably timely manner.

An area of concern in reference to the number of personnel granted unescorted access to the control room was identified to the licensee. The licensee took action to decrease personnel access to the area and continues to analyze the issue.

The inspectors noted significant weaknesses in the program for controlling keys. The licensee disagreed and an evaluation memorandum was sent by the Region III to NMSS. However, in most cases site and corporate management appear supportive of security concerns and address them in a timely manner.

The major safeguards tasks facing the licensee are the implementation of the Security Force Training and Qualification Plan, the implementation of 10 CFR 73.71(c) reporting requirements, and information protection program to comply with 73.21.

b. Conclusion

The licensee is rated Category 2 in this area. A Category 2 rating is considered appropriate since no specific strength or weaknesses were identified.

c. Board Recommendations

None.

8. Refueling

a. Analysis

Both units at the Donald C. Cook Nuclear Plant were refueled during the evaluation period. Three refueling inspections (two on Unit 2, one on Unit 1) were conducted by regional inspectors and observations were made by the resident inspectors during the evaluation period. One noncompliance was identified as follows:

 Severity Level VI - For failure to enforce procedures regarding cleanliness and control of loose articles (50-315/81-14).

During the Unit 2 refueling, the inspectors expressed concern over the apparent over dependence on the contracted refueling crew and the lack of involvement of the Licensed Senior Operators.

No LER's caused by personnel error were assigned to this area; however, an incident during the Unit 1 refueling (a used fuel assembly was damaged during fuel movement) could have been prevented by utilizing the indications available for double checking the fuel assembly position. This lack of direct involvement by licensee personnel in refueling activities is seen as a contributor to this significant event.

The initial written response to an inspector's questions concerning Technical Specification changes resulting from the Unit 2 Cycle 3 core reload safety analysis was not factual and indicates poor internal communications and lack of attention to details by personnel who should be cognizant of activities in this area.

The licensee has committed to take steps to better control tools and materials and have made procedure revisions to assure fuel position prior to pickup or release.

b. Conclusion

The licensee is rated Category 2 in this area. No particular strengths or weaknesses were identified.

c. Board Recommendations

The Board recommends that the licensee give this area added attention in view of the findings discussed above.

9. Licensing Activities

a. Analysis

This evaluation is based primarily upon the review of licensing activities in the areas of 10 CFR 50, Appendix R, inservice inspection, and responses to NUREG-0737.

Management Involvement in Assuring Quality

There is evidence of weaknesses in planning, assignment of priorities, and decision making. Typical areas where management involvement has been weak is Appendix R, inservice inspections and responses to NUREG-0737. Management did not understand Appendix R requirements as evidenced by their March 1981 letter stating the fire protection program at the D. C. Cook facility met the applicable Appendix R requirements. A Region III inspection against these requirements resulted in many noncompliances. Backup material for the inservice inspection program was lost and a schedule for providing additional information has not been furnished. Management appears to be unaware that requests for NUREG-0737 information and other information is not being provided in a timely manner.

Responsiveness

The licensee's responsiveness is judged to be untimely for a predominance of submittals. Requests for extensions in response time is made on most submittals. Information is still outstanding on over 50 percent of the active licensing actions.

Staffing

As noted, the licensee's staff appears to be strained in making timely responses to NRC staff requests. In the area of fire protection the licensee has contracted for outside help but only after problems in this area were identified. The licensee may need to increase staff or contract to replace lost inservice inspection backup information.

b. Conclusion

The licensee is rated Category 3 in this area. There has been a lack of management attention and involvement as indicated by the problems identified in the fire protection program. The licensee's responses have not been timely on a majority of NRR requests for information on active licensing actions.

c. Board Recommendations

The Board recommends that the licensee improve the timeliness and thoroughness of responses. Specific attention is needed on fire protection, inservice inspection, and NUREG-0737 licensing actions.

10. Quality Activities

a. Analysis

Two inspections were performed by region based inspectors and parts of numero s inspections conducted by the resident inspectors covered procurement, QA audits, reviews and committee activities, and design changes.

Technical Specifications; 10 CFR 50, Appendix B; plant QA program; and plant and corporate implementing instructions and procedures formed the basis for these inspections. Seventeen items of noncompliance were identified as follows:

- (1) Severity Level IV Failure to provide adequate 10 CFR 50.59 review documentation for several modifications and procedure changes (50-315/81-03(03)).
- (2) Severity Level VI Failure to provide required documentation of Quality Control inspection of the installation and repair of fire barriers (50-315/81-08(12)).
- (3) Severity Level IV Failure to provide adequate design control measures and keep records of activities affecting quality (50-315/81-18).

- (4) Severity Level IV Failure to perform Type C leak rate tests on a containment isolation valve (50-315/81-18(21)).
- (5) Severity Level V Failure to sign and date a design calculation check (50-315/81-19(22)).
- (6) Severity Level V Failure to report stress analysis and repairs exceeding Code limits, two instances (50-315/81-19(22)).
- (7) Severity Level IV Failure to conduct a safety review of a revision to a design change prior to implementation of the design change (50-315/81-21(24)).
- (8) Severity Level V Failure to have N-Train batteries on the N-List (50-315/81-28(32)).
- (9) Severity Level V Failure to update changes to the centrifugal charging pump system on control room drawings before using the revised system (50-315/82-04).
- (10) Severity Level VI Failure to meet the commitment to install auxiliary feedwater pump automatic trip (50-315/80-21(17)).
- (11) Severity Level V Failure to install a cartridge purge unit required by TMI Task Action Plan and failure to provide a timely response to IEB 80-11, Masonry Wall Design (50-315/81-01(01)).
- (12) Severity Level V Failure to do corrective action for a previous noncompliance as stated in the corrective action letter (50-315/81-21(24)).
- (13) Severity Level V Failure to document procedure cancellation and procedure reviews and failure to follow procedure distribution procedure (50-315/81-03(03)).
- (14) Severity Level IV Failure to review and approve a surveillance test procedure modification (50-315/81-18(21)).
- (15) Severity Level V Failure to have a procedure for using a fire hose to fill the refueling transfer canal (50-315/81-21(24)).
- (16) Severity Level V Failure to conduct a design review and safety committee approval of a corrective action to resolve a previous noncompliance (50-315/81-21(24)).
- (17) Severity Level V Failure to use vendors on the qualified suppliers list to provide and service test equipment (50-315/82-04(04)).

The first nine items reflect a lack of acceptate administrative controls implementing the various aspects of design control. Design control is probably the best reflection of ongoing quality assurance activities during the operation phase; and the r ny noncompliances indicates a weakness in the system and a lack of QA backing at the corporate level. As in other areas, there have been numerous cases where corrective action response dates have been excessively exceeded and many cases where there was little or no followup to see if the corrective actions were completed or to assess their effectiveness.

A recent Nuclear Safety and Design Review Committee audit, (Audit #76, October 1981) a management audit by a corporate executive, verified that commitments for corrective actions stated in correspondence to the NRC had been completed, but did not assess the adequacy of the actions.

The plant QA staff has established a program to verify completion of committed actions. Due to staffing limitations the program does not evaluate the adequacy of the actions.

Item 17 reflects the lack of QA control over calibration service vendors. The licensee conducted a survey of other utilities, after they were cited, and discovered that the other utilities were certifying their vendors in this area and they were the only one to misinterpret this issue.

Another example of programmatic weakness is in the area of independance of quality control within plant departments. Quality Control Implementation Coordinators (QCIC), assigned to departments, perform few if any QC related functions but chiefly coordinate the department's responses to identified deficiencies. They do not make determinations of root causes and the prevention of deficiencies.

In spite of the FSAR description of the department's QCIC's purpose, there is no recent evidence to show that audits or surveillances of department activities are conducted by these personnel. This lack of QA and QC within the departments is viewed as either a result of an over burden of administrative assignments for QA/QC or insufficient staffing. It also reflects a lack of management endorsement of Quality Assurance principles.

The remaining noncompliance items resulted from failure to implement commitments (3 items), and weak or non-existent procedural controls which implement QA requirements (4 items). These noncompliances reflect a weakeness in administrative controls and the apparent need to improve plant wide awareness of commitments and QA requirements.

b. Conclusion

The licensee is rated Category 3 in this area. The QA program as documented appears to be adequate but the non-compliance history demonstrates inadequate implementation and lack of corporate backing. The commitment verification program now underway is an improvement but falls short of the needed quality program assessment.

c. Board Recommendations

The Board recommends increased management support in the implementation of the QA Program with particular emphasis on reviewing existing quality assurance program interpretations, assessing the adequacy of commitments, and providing timely and effective corrective actions with followup on their completion and effectiveness. A performance appraisal team inspection has been scheduled to review this and other areas in July 1982.

11. Environmental Controls

a. Analysis

Confirmatory Measurements

Comparative measurements were made during two inspections in the evaluation period. During the first inspection in December 1980, the licensee achieved 22 agreements or possible agreements out of 23 comparisons. A continuing problem of accurately measuring Sr-89 and Sr-90 in effluent samples was apparently resolved by contracting to have these analyses done by Eberline Instrument Corporation. A software problem involving identifying Xe-131 in gas samples was identified during this inspection and was subsequently resolved.

During the January 1982, inspection the licensee did much worse on the split sample comparisons, with only 12 agreements or possible agreements out of 22 comparisons. The probable cause of the disagreements was identified and the licensee committed to have the problem corrected. Other problems noted were minimum detectable activity levels that were too high, calibration problems with several geometries, and excessive background causing the licensee to identify radioisotopes that in fact were not present in the samples. The above problems, which the licensee has agreed to correct, indicates a lack of quality control over analytical equipment.

Environmental Protection

During the one environmental protection inspection performed in the evaluation period, several minor weaknesses were noted in the licensee's management controls of the radiological environmental monitoring program. Maintenance of air sampling equipment was suspect since two out of three stations observed by the inspectors required repair. The 1980 annual environmental report included outdated maps of sampling locations. The licensee failed to document an annual milk producing animal survey conducted in 1980. Corrections for decay during sampling of continuous airborne releases were improper. None of these problems involved a significant potential effect on the health and safety of the public.

b. Conclusion

The licensee is rated Category 2 in this area. The degraded performance in confirmatory measurements and numerous minor problems in environmental protection appear to be due to the lack of attention to these programs.

c. Board Recommendations

The Board recommends that the routine confirmatory measurements and environmental protection inspection frequency be maintained. The licensee needs to upgrade management attention in these areas.

V. SUPPORTING DATA AND SUMMARIES

A. Noncompliance Data

Facility Name: D. C. Cook, Unit 1 Docket No. 50-315

Inspections No. 80-15 through No. 80-24

No. 81-01 through No. 81-29 No. 82-01 through No. 82-06

Noncompliance and Deviations² Severity Levels Categories Functional Area Assessment V VI I II III IV Viol. Infr. Def. Dev. Plant Operations 1. 1 3(2) (1) 2. Radiological Controls (2) (1) (2) 3. Maintenance (1) 1 4. Surveillance and 1 1 (2) 1 Inservice Inspection 5. Fire Protection and (1) 1(3) $(4)^3$ Housekeeping Emergency Preparedness (1) (1)7. Security and Safeguards 1 (3) 8. Refueling 1 9. Licensing Activities Quality Activities 1(4) 1(9) (2) 11. Environmental Controls $\overline{0} \ \overline{0} \ \overline{(4)} \ \overline{5(8)} \ \overline{5(16)} \ \overline{2(7)} \ \overline{0}$ (4) 1 0 TOTAL

Numbers in parenthesis indicate noncompliance common to both units.

Three Civil Penalties without Severity Levels were included as Infractions.

Because of the increased number of noncompliances in the SALP 2 assessment period, the following evaluation was carried out to account for the lengthened period for SALP 2 (18 versus 12 months) and the increased NRC inspection effort due to the assignment of a second resident inspector. In the SALP 1 evaluation period there were sixteen Infractions and seven Deficiencies for a noncompliance to inspector-hour ratio of 0.0203 while in the present period (18 months) there were four Severity Level III's, thirteen Severity Level IV's twenty-one Severity Level V's, nine Severity Level VI's, four Infractions and one Deficiency for a noncompliance to inspector-hour ratio of 0.0229.4 This method indicates a 13 percent increase in noncompliance frequency, and does not take into account Severity Levels. Comparing by length of evaluation period only, there would be a noncompliance increase of 51 percent in SALP 2. The noncompliances common to both units (22 in SALP 1 and 39 in SALP 2) were used in the calculations.

Man-hours onsite for the Health Physics Appraisal and the EPIA were not included.

Facility Name: D. C. Cook, Unit 2 Inspections No. 80-15 through No. 80-20

Docket No. 50-316

No. 80-15 through No. 80-20 No. 81-01 through No. 81-33 No. 82-01 through No. 82-06

> Noncompliance and Deviations Severity Levels Categories

	Assessment I II	III	IV	V	VI	Viol.	Infr.	Def.	Dev.
1.	Plant Operations	1	1	1(2)	1(1)				
2.	Radiological Controls	(2)		(1)	(2)				
3.	Maintenance			(1)					
4.	Surveillance and Inservice Inspection	1	1		(2)				
5.	Fire Protection and Housekeeping	(1)	(3)				(4) ⁵		
6.	Emergency Preparedness	(1)	(1)						
7.	Security and Safegurards		1	(3)					
8.	Refueling								
9.	Licensing Activities								
10.	Quality Activities		(4)	(9)	(2)				
11.	Environmental Controls								
	TOTAL $\overline{0}$ $\overline{0}$	2(4)	3(8)	1(16)	1(7)	$\overline{0}$	(4)	$\overline{0}$	ō

⁵ Three Civil Penalties without Severity Levels were included as Infractions.

Because of the increased number of noncompliances in the SALP 2 assessment period, the following evaluation was carried out to account for the lengthened period for SALP 2 (18 versus 12 months) and the increased NRC inspection effort due to the assignment of a second resident inspector. In the SALP 1 evaluation period there were twenty-one Infractions and six Deficiencies for a noncompliance to inspector-hour ratio of 0.0233 while in the present period (18 months) there were six Severity Level III's, eleven Severity Level IV's, seventeen Severity Level V's, eight Severity Level VI's, and four Infractions for a noncompliance to inspector-hour ratio of 0.0222.6 This method indicates a 5 percent decrease in noncompliance frequency and does not take into account Severity Levels. Comparing by length of evaluation period, there would be an increase of 14 percent in SALP 2. The noncompliances common to both units (22 in SALP 1 and 39 in SALP 2) were used in the calculations.

⁶ Man-hours onsite for the Health Physics Appraisal and the EPIA were not included.

B. Licensee Report Data

1. Licensee Event Reports (LER's)

Licensee Proximate Cause Code Assignment

		it 1 of LER's	Unit 2 Number of LER's		
Cause Type	SALP 1*	SALP 2**	SALP 1*		
Personnel Error (A)	5	21	8	12	
Design, Mfg., Const/Install. (B)	7	9	6	8	
Defective Procedures (0) 2	2	2	4	
Component Failure (E)	21	37	30	58	
Other(X)	6	17	6	24	
TOTAL	41	86	52	106	

*SALP 1 - 12 months **SALP 2 - 18 months

In comparing the LER data from the two evaluation periods, the lengths of the periods must be taken into account. When this is done, it is noted that there has been a 38 percent increase in total LERs reported in SALP 2; while for LER's attributed to personnel error there was a 69 percent increase. It was also noted that 64 percent of the LER's caused by personnel error were reported in the last half of the evaluation period and 30 percent in the last quarter indicating an increasing frequency of occurrences of this type in the latter part of the evaluation period. Another significant change was the 127 percent increase in LER's classified as "other."

2. Part 21 Reports

Two Part 21 reports were made; one, on May 19, 1981, concerning stud failures in Hopkinson 28-inch parallel slide valves and one (generated elsewhere) concerned defective components in Agastat relays.

C. Licensee Activities

Major outages (greater than 48 hours) for the D.C. Cook facility are summarized below:

Unit 1

December 24, 1980: 294.0 hour outage for ice condenser and steam generator tube inspection.

May 29, 1981: 1591.2 hour outage for refueling and modification work.

November 3, 1951: 286.1 hour outage to repair pressurizer spray valve, and maintenance and modification work.

December 29, 1981: 229 hour outage to repair the other spray valve, other maintenance and modification work.

January 31, 1982: 770.9 hour outage to repair first stage of high pressure turbine (blade failure).

Unit 2

October 18, 1980: 1270.3 hour outage to repair the main generator stator.

March 14, 1981: 1643.4 hour outage for refueling and modification work.

July 3, 1981: 205.3 hour outage to correct high temperatures in lower containment and the #24 Reactor Coolant Pump.

Octobe: 2, 1981: 525.7 hour outage to correct steam generator tube leakage and adjust the steam generator and reactor coolant pump support shims.

October 25, 1981: 121.75 hour outage to repair a reactor coolant leak through the Pressurizer manway.

March 11, 1982: 489.4 hour outage to correct the No. 23 reactor coolant pump high motor temperatures and No. 2 seal excess leak off, and perform surveillance on the ice condenser.

Administrative power limits of 60% were imposed on both units on October 14, 1981, while temporary shoring was installed on one train of the 4KV bus cabinets. These cabinets had been found to have inadequate seismic restraints. Modifications corrected the deficiencies identified on all switchgear cabinets. Subsequent to the evaluation period another switchgear cabinet was found to have inadequate restraints.

No major modifications were made during this SALP period.

D. Inspection Activities

Two major team inspections were accomplished in the evaluation period: The Health Physics Appraisal, encompassing 600 inspection hours; and the Emergency Preparedness Implementation Appraisal, 356 hours.

The resident inspectors performed fourteen routine safety inspections and participated in the EPIA, warning system tests, and containment integrated leak rate tests at both units.

E. Investigations and Allegations Review

The following investigations were conducted during the evaluation period:

- 1. July to November 1980, an investigation concerning allegations that three Region III employees had violated radiation protection procedures while inspecting steam generator repairs. It was determined that the inspectors informed plant radiation protection personnel of their intention to enter the steam generators and they were not advised of the existance of a specific radiation work permit (RWP) for such entries. The inspectors did not determine that a RWP was posted, and as a result did not observe established plant radiation protection procedures (50-315/80-17).
- July to August, 1980, an investigation concerning allegations of improper installation of fire stop material. The investigation resulted in two items of noncompliance, one for improper documentation of quality control inspections and one for not establishing fire watches in areas where fire stop material had been removed (50-315/81-08(12)) and 50-315/80-19(15)).

F. Escalated Enforcement Actions

1. Civil Penalty

A Civil Penalty in the amount of \$80,000.00 was proposed December 30, 1981, for violations of regulatory requirements including inadequate implementation of the fire protection program, material false statements which described the program, and failure to maintain containment integrity and to promptly report it. The final Civil Penalty amount has not been determined pending licensee's request for mitigation.

2. Orders (Enforcement)

None.

3. Immediate Action Letters

None.

G. Management Conferences

Five management meetings were held during the appraisal period and one shortly after as follows:

- December 29, 1980, (Bridgman, Michigan) held to review the initial SALP Program findings (50-315/80-24(20)).
- January 13, 1981, (Bridgman, Michigan) held to discuss operational events which were of concern to Region III (50-315/81-02(02)).
- 3. August 4, 1981, (Glen Ellyn, Illinois) held to discuss several events which had precipitated broadened concerns for overall plant operation and to establish a plan to resolve these concerns. Following the conference, the licensee was asked to address steps being taken to accomplish the following:
 - Strengthen site management and management controls
 - Improve followup of corrective actions
 - Improve surveillance program control and accountability
 - Improve attitude in complying with regulations
 - Identify root causes of personnel errors and preclude repetition
 - Improve communications and teamwork between New York and site, between New York divisions and between site sections
 - Improve independent verification program
 - Determine adequacy of adrinistrative controls.
- 4. November 2, 1981, (Columbus, Ohio) held to discuss long term plans and goals proposed by the licensee following the August 4, 1981 meeting (50-315/81-27(31)).
- 5. March 16, 1982, (New York, New York) held to review the status and effectiveness of the steps that had been taken to upgrade operational performance and to refocus the objectives and priorities being placed on these actions (50-315/82-06(06)).
- 6. May 4, 1982, (Bridgman, Michigan) held to discuss the findings of the Emergency Preparedness Implementation Appraisal.