U. S. NUCLEAR REGULATORY COMMISSION
REGION II

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE BOARD REPORT

CAROLINA POWER AND LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2
DOCKET NUMBERS 50-325 AND 50-324

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2
DOCKET NUMBER 50-261

SHEARON HARRIS NUCLEAR POWER PLANT UNITS 1 and 2
DOCKET NUMBERS 50-400 and 50-401

JULY 1, 1980 THROUGH DECEMBER 31, 1981

INSPECTION
REPORT NUMBERS

50-325/82-15, 50-324/82-15,
50-261/82-17,
50-400/82-14, 50-401/82-14

I. INTRODUCTION

A formal licensee performance assessment program has been implemented in accordance with the commitments of Task I.B.2 of NUREG-0660, Volume 1, "NRC Action Plan Developed as a Result of the TMI-2 Accident". This program, the Systematic Assessment of Licensee Performance (SALP) is applicable to all power reactors with operating licenses or construction permits (herein after referred to as licensees). The SALP program is an integrated NRC staff effort to collect available observations of licensee performance on an annual basis and evaluate performance based on these observations. Positive and negative attributes of licensee performance are considered. Emphasis is placed on understanding the reasons for a licensee's performance in important functional areas, and sharing this understanding with the licensee. The SALP process is oriented toward furthering NRC's understanding of the manner in which: (1) the licensee directs, guides, and provides resources for assuring plant safety; and (2) such resources are used and applied. The integrated SALP assessment is intended to be sufficiently diagnostic to provide meaningful guidance to the licensee. The SALP program supplements the normal regulatory processes used to ensure compliance with NRC rules and regulations.

II. CRITERIA

Licensee performance is assessed in selected functional areas depending on whether the facility has been in the construction, preoperational, or operating phase during the SALP review period. Functional areas encompass the spectrum of regulatory programs and represent significant nuclear safety and environmental activities. Certain functional areas may not be assessed because of little or no licensee activities in these areas, or lack of meaningful NRC observations.

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

- Management involvement in assuring quality
- Approach to the resolution of technical issues from a safety standpoint
- Responsiveness to NRC initiatives
- Enforcement history
- Reporting and analysis of reportable events
- Staffing (including management)
- Training effectiveness and qualification

The SALP Board has categorized functional area performance at one of three performance levels. These levels are defined as follows:

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 o 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.

The functional area being evaluated may have some attributes that would place the evaluation in Category 1, and others that would place it in either Category 2 or 3. The final rating for each functional area is a composite of the attributes tempered with the judgement of NRC management as to the significance of individual items.

III. SUMMARY OF RESULTS

A. Overall Utility Evaluation

The licensee is cooperative with the Commission and displays good technical competence. Weaknesses common to both operating sites were found in the areas of plant operations, procedures, and radiation protection.

B. Overall Facility Evaluation - Brunswick 1 and 2

During the review period the licensee underwent a reorganization which included major personnel changes. Evaluation of these changes is still in progress although improved performance is expected to result. Major weaknesses were noted in the areas of plant operations, maintenance, fire protection, plant procedures, radiation protection, environmental protection, and quality assurance.

C. Facility Performance - Brunswick 1 and 2

Tabulation of ratings for each functional area; operations (Units 1 and 2)

1. Plant Operations - Category 3
2. Refueling Operations - not evaluated
3. Maintenance - Category 3
4. Surveillance and Inservice Testing - Category 2
5. Personnel, Training, and Plant Procedures - Category 3
6. Fire Protection and Housekeeping - Category 3
7. Design Changes and Modifications - Category 2
8. Radiation Protection, Radioactive Waste Management, and Transportation - Category 3

9. Environmental Protection - Category 3
10. Emergency Preparedness - Category 2
11. Security and Safeguards - Category 2
12. Audits, Review and Committee Activities - Category 3
13. Administrative, QA, and Records - Category 3
14. Corrective Action and Reporting - Category 2

D. Overall Facility Evaluation - Robinson 2

Management is aware of and responsive to the performance of the plant. Strengths were noted in the area of environmental protection. Weaknesses were noted in the areas of plant procedures and radiation protection. Trends during the period were towards improvements in the health physics area.

E. Facility Performance - Robinson 2

Tabulation of ratings for each functional area; operations (Unit 2)

1. Plant Operations - Category 2
2. Refueling Operations - Category 2
3. Maintenance - Category 2
4. Surveillance and Inservice Testing - Category 2
5. Personnel, Training, and Plant Procedures - Category 3
6. Fire Protection and Housekeeping - Category 2
7. Design Changes and Modifications - Category 2
8. Radiation Protection, Radioactive Waste Management, and Transportation - Category 3
9. Environmental Protection - Category 1
10. Emergency Preparedness - Category 2
11. Security and Safeguards - Category 2
12. Audits, Review and Committee Activities - Category 2
13. Administrative, QA, and Records - Category 2
14. Corrective Actions and Reporting - Category 2

F. Overall Facility Evaluation Harris 1 and 2

No exceptionally strong or weak areas were identified.

G. Facility Performance - Harris 1 and 2

Tabulation of recommended ratings for each functional area; construction (Units 1 and 2)

1. Quality Assurance - Category 2
2. Site Preparation and Foundation - Category 2
3. Containment Structure - Category 2
4. Safety-Related Structures - Category 2

5. Piping and Hangers - Reactor Coolant and Others - Category 2
6. Safety-Related Components - Category 2
7. Electrical Systems - Category 2
8. Instrumentation and Wire - not observed
9. Fire Protection - Category 2
10. Preservice Inspection - not observed
11. Corrective Actions and Reporting - Category 2
12. Procurement - Category 2
13. Design and Design Changes - Category 2
14. Training - Category 2

H. SALP Board Members:

R. C. Lewis, Director, Division of Project and Resident Programs (DPRP) (Chairman), RII
J. A. Olshinski, Director, Division of Engineering and Technical Programs (DETP), RII
C. E. Murphy, Chief, Engineering Inspection Branch, DETP, RII

I. SALP Board Attendees:

C. A. Julian, Acting Chief, Reactor Projects Section 1C, DPRP, RII
R. C. Butcher, Project Inspector, DPRP, RII
D. Johnson, Senior Resident Inspector, Brunswick
S. Weise, Resident Inspector, Robinson
G. F. Maxwell, Senior Resident Inspector, Harris
W. J. Ross, Project Manager, Division of Licensing, NRR
J. A. VanVliet, Project Manager, Division of Licensing, NRR
E. A. Licitra, Licensing Project Manager, Division of Licensing, NRR
J. K. Rausch, Inspector, Division of Emergency Preparedness and Operational Support, RII

IV. PERFORMANCE ANALYSIS AND ACTIVITIES SUMMARY

A. Brunswick Units 1 and 2

1. Plant Operations

a. Analysis

During performance of the routine inspection program the resident inspector made frequent observations of plant operations.

Four violations were identified in the specific area of plant operations:

(1) Severity Level IV violation involving the securing of all service water systems to repair a check valve. This action rendered the LPCI, core spray, and diesel generators inoperable contrary to Technical

Specifications. The LPCI, core spray, and diesel generators were not declared inoperable when service water was secured.

(2) Severity Level IV violation for the failure to place a HPCI isolation channel in the trip mode within one hour of its becoming inoperable.

(3) Severity Level V violation for the entry into an operational mode without meeting all required Limiting Conditions for Operation. During a Unit 2 startup, as a result of operator error, the reactor mode switch was taken out of the refueling mode, placed in startup, and control rod withdrawal commenced with the A-loop RHR torus suction valve shut. Control room operators began the startup without confirming that the person sent to open the RHR valve had completed the task.

(4) Infraction assessed when, during a Unit 2 startup in September 1980, the turbine exhaust manual check valves on both HPCI and RCIC were found closed, rendering the systems inoperable. The periodic test results and valve lineup sheets showed that these valves had been verified open.

In addition to these identified violations plant operations errors have caused significant plant outage time during the appraisal period. Described in Section 3, Maintenance, are plant operations related events resulting from the fouling of the RHR heat exchangers with oyster shells.

The violations above were caused by personnel errors. These violations are examples of recurrent problems and the lack of management control in the area of plant operations.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

2. Refueling Operations

No inspections were performed in this area.

3. Maintenance

a. Analysis

The resident inspectors observed plant maintenance activities as a part of their routine program. Significant findings were as follows:

Severity Level IV violation on Unit 1 concerning a component (photohelic unit) removed from the Unit 1 containment post accident radiation monitor 1-CAC-A2-1262 without the ¼ inch instrument lines being isolated. This resulted in the establishment of a small undetected open flow path from the drywell, via the open instrument lines, to the reactor building. This condition existed from May 27, 1980 until its discovery on February 4, 1981, when the containment isolation valves were closed and tagged shut. During this time period the containment isolation valves in these lines were operational and would have closed upon receiving a containment isolation signal.

During the evaluation period the service water intake chlorination system was removed from service for maintenance and remained out of operation for approximately six months. This resulted in an excessive buildup of oysters in the service water piping. During a Unit 1 outage in April 1981 an RHR heat exchanger baffle plate failed due to excessive differential pressure caused by fouling of the heat exchanger tubes with oyster shells. The redundant RHR heat exchanger was disassembled at the time for repair of a similar baffle plate. The resulting vessel heatup due to decay heat was controlled by use of the spent fuel pool cooling system.

Unit 2 was in power operation at the time and testing of its RHR heat exchangers revealed one to be inoperable with a failed baffle plate and the other to be operable with reduced capacity due to shell plugging. Unit 2 was then shut down on May 6 for removal of oyster shells from the service water system and repair of the RHR heat exchangers and remained down until June 8. Unit 1 remained shut down from April 17 through the end of the evaluation period for service water system cleaning, RHR heat exchanger repairs, and other maintenance activities.

Section A.14 of this report discusses the March 1980 failure of hydraulic snubbers to meet functional testing requirements. All hydraulic snubbers in both units were tested and approximately 20% were found inoperable. The majority of the failures was due to wear but many failures were caused by previous inadequate maintenance.

The plant has experienced significant down time due to inadequate maintenance during the appraisal period.

The licensee is currently focusing management attention and resources on this matter to improve maintenance quality at the plant.

The recurrence of maintenance problems represents a lack of management control in this area. Supervisory maintenance personnel have been reorganized and the licensee has committed to increasing the numbers of maintenance foremen on site.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating and recommends increased inspection effort in this area to confirm the effectiveness of the corrective actions initiated.

4. Surveillance and Inservice Testing

a. Analysis

The resident inspectors routinely observed the surveillance activities as part of their inspection program. One violation was identified in the surveillance area:

Severity Level IV violation concerning the procedure used to conduct the Containment Integrated Leak Rate Test performed in June, 1981. The procedure specified neither the requirements for venting and draining of certain systems nor the addition of certain type "C" leak rate test results to the integrated leak rate. The procedure also included improper valve lineups.

One inspection of inservice testing was performed by regional based inspectors. No violations resulted from this inspection.

The licensee is in the process of reorganization and realignment of Quality Assurance control functions. This reorganization is expected to improve the inservice inspection and testing programs because of more clearly defined responsibilities.

During the appraisal period no significant weakness was observed in the surveillance program.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

5. Personnel, Training, and Plant Procedures

a. Analysis

These areas were examined during a Quality Assurance team inspection. Two violations were identified in the training area:

(1) Severity Level V violation for the failure to provide adequate training for quality assurance inspectors. QA training procedures were out of date and not being followed, some training which had been conducted was not documented, and training to maintain the proficiency of QA personnel was not being conducted.

(2) Severity Level V violation concerning the required annual audits of plant training by the corporate Nuclear Safety and Quality Assurance Audit Section. The audits were conducted but failed to identify the deficiencies in QA personnel training described above.

During this period 27 reactor operator licensing examinations were conducted of which 18 passing grades were recorded.

Routine inspection by the resident and region based inspectors identified five violations in the procedures area:

(3) Severity Level V violation for the failure to follow procedures which required logging of annunciator alarms.

(4) Severity Level V violation for five examples of failure to follow procedures. These procedures involved the implementation of plant modifications and the use of special procedures.

(5) Severity Level V violation for six examples of failure to maintain controlled copies of safety related procedures.

(6) Severity Level V violation for the failure to maintain the current revision of emergency procedures at the remote shutdown panel.

(7) Severity Level V violation for the failure to provide an alarm procedure of the ECCS room flooding annunciator.

Two additional violations are discussed in sections 1 and 7, plant operations and maintenance, involving failure to provide adequate procedures.

Most violations identified at Brunswick relate in some way to procedures. Violations in this category occur either because the procedure was not adequate to properly instruct personnel in the performance of safety-related activities or the procedure was not followed. The resident inspectors have observed a continuing difficulty by management to maintain procedures current and a lack of regard for the necessity to consistantly follow current procedures on the part of plant personnel.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

6. Fire Protection and Housekeeping

a. Analysis

The area of housekeeping was included in routine inspections conducted by the Resident Inspector. No violations were identified. The area of fire protection was the object of one routine inspection during this evaluation period by a regional based inspector. Considerable resources have been exerted by the licensee to conform to the NRC fire protection guidelines and requirements. The licensee continues to have difficulty, though, in effectively implementing a satisfactory fire protection program as evidenced by the following four violations:

(1) Severity Level V violation for the failure to verify that the fire barrier penetrations protecting safety related areas in a number of plant areas were functional.

(2) Severity Level V violation for the failure to implement the procedure for fire brigade training and drills.

(3) Severity Level V violation for the failure to implement the respirator protection procedure for the training of fire brigade members in the use of respirators.

(4) Severity Level V violation for the failure to provide the required number of servicable spare cylinders for self contained breathing apparatus.

The above violations indicate a need for the licensee to continue to strengthen the implementation of the fire protection program. Additional resources have been allocated by the licensee to accomplish this goal.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

7. Design Changes and Modifications

a. Analysis

Design changes were routinely reviewed by the resident inspector and inspected during a Quality Assurance Team Inspection. Two violations were identified:

(1) Severity Level V violation for the failure to provide an adequate procedure for testing following a modification. While performing a hydrostatic test of piping following a plant modification of reactor vessel level instrumentation, an inadvertent actuation of ECCS equipment occurred because the testing procedures were not clear, concise, and coordinated with all personnel involved in the testing.

(2) Severity Level VI violation for the failure to establish measures to assure that design analyses will be provided for in-plant modifications.

Considering the large number of plant modifications in progress during the inspection period in response to the TMI Task Action plan, the violations identified do not represent a significant program deficiency.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

8. Radiation Protection, Radioactive Waste Management, and Transportation

a. Analysis

A Health Physics Team Appraisal, three reactive inspections, one confirmatory measurements inspection, an investigation, and a routine radiation protection inspection were performed

in this area during the appraisal period. The resident inspectors also performed routine inspections in this area. The violations and findings identified indicate management system weaknesses in this area. The violations were:

(1) Severity Level III violation for exposing a worker to radiation in excess of the quarterly limit.

(2) Severity Level III violation for not properly evaluating the radiation hazards associated with maintenance which resulted in the overexposure of one individual.

(3) Severity Level IV violation for assigning a radiation control technician to a position of responsibility with less than the minimum experience required by Technical Specifications.

(4) Severity Level IV violation for not performing adequate evaluations of gaseous radioactive releases from the Auxiliary Boiler to ensure that offsite limits would not be exceeded.

(5) Severity Level IV violation for not properly monitoring gaseous radioactive releases from the Unit 1 and Unit 2 reactor buildings, the main stack, and the Unit 1 and Unit 2 turbine buildings.

(6) Severity Level IV violation for not properly monitoring and recording releases of radioactive liquid wastes to the stabilization pond and the discharge canal.

(7) Severity Level IV violation for not properly notifying the NRC Operations Center of an unplanned release of gaseous radioactivity from the auxiliary boiler.

(8) Severity Level IV violation for an inadvertent release of liquid from the floor drain sample tank without prior sampling.

(9) Severity Level V violation for not including certain liquid and gaseous releases in the facility's semiannual effluent release report.

(10) Severity Level V violation for not taking an adequate airborne radioactivity survey in the breathing zone of individuals and not conducting an adequate general air sampling program for detection or evaluation of airborne radioactivity in the work area.

(11) Severity Level V violation for not performing the required evaluation, conducting corrective actions to assure against recurrence, and completing documentation following the intake of radioactive material by any individual exceeding the 40-MPC hours control measure.

(12) Severity Level V violation for not following procedures controlling the release of radioactive material outside the Radiation Control Area.

(13) Severity Level V violation for not conspicuously posting radiation areas.

(14) Severity Level V violation for inadequate liquid radioactive waste handling procedures.

(15) Severity Level V violation for the failure to wear anti-C clothing as required.

(16) Severity Level VI violation for not properly reviewing and approving temporary changes to liquid radwaste processing procedures.

(17) Infraction for the inadequate evaluations of doses to individuals using thermoluminescent dosimeter (TLD) results.

(18) Infraction for the failure to follow procedures for annual calibration of the analytical balances and the gamma ray spectrometer.

(19) Infraction for the failure to adequately measure airborne particulate radioactivity in plant gaseous effluent monitors.

The first three violations resulted in the issuance of a civil penalty and appeared to be attributable to inadequate evaluations of radiation hazards. These hazards were associated with reactor water cleanup system valve maintenance work. The event was compounded by inadequate control of the work of an unqualified radiation control technician.

The last violation demonstrates the lack of management review of monitoring data and the inadequacy of quality control checks which would have ensured the adequacy of the effluent monitoring program.

The Health Physics Appraisal Team identified weaknesses in the internal exposure control program, contamination control surveillance, liquid radwaste management, and routine

surveillance of operating parameters for safety-related effluent filter systems.

The licensee's performance toward the end of the evaluation period has improved and is attributable to upper management attention, organization and personnel changes, and additional emphasis and resources in this area. Recent inspections indicate that the radiation protection program is rapidly attaining a high level of proficiency.

b. Conclusion

Due to the presence of significant management control problems as evidenced by the above Severity Level III and IV violations, the licensee's performance is rated in Category 3.

c. Board Comments

The board concurs with the rating.

9 Environmental Protection

a. Analysis

One environmental protection inspection resulted in four Severity Level V violations which indicated a lack of adequate management attention to develop and maintain the environmental monitoring program in accordance with the Environmental Technical Specifications. The violations were:

(1) Severity Level V violation for the failure to implement automatic intermittent surface water sampling of the intake canal. Although this is a Technical Specification requirement, the sampling program had never been implemented.

(2) Severity Level V violation for the failure to provide quality assurance procedures for monitoring, sample collection, and sample analysis as required by the Technical Specifications. The licensee failed to develop procedures for the calibration of dry gas meters on air particulate monitors located at various monitoring stations.

(3) Severity Level V violation for the failure to notify the NRC within 30 days, as required by Technical Specifications, when a milk sampling point was dropped from the surveillance program.

(4) Severity Level V violation for the failure to complete the review and approval of temporary procedure changes. Technical Specifications require subsequent review and

approval of temporary changes to procedures prior to their implementation as permanent procedure changes.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

10. Emergency Preparedness

a. Analysis

Two inspections were conducted during the evaluation period. One inspection was an evaluation of a full-scale emergency exercise, and the other was an emergency preparedness appraisal. No violations were identified. Two emergency preparedness deficiencies were identified during the appraisal.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

11. Security and Safeguards

a. Analysis

Routine inspections by the resident inspector and six security and safeguards inspections by regional personnel were conducted during this period. Six violations were identified in the areas of access controls and barriers as follows:

(1) Severity Level V violation for the failure to void access authorization.

(2) Severity Level V violation for the failure to provide an adequate vital area barrier.

(3) Severity Level V violation for the failure to make an adequate vehicle search.

(4) Severity Level V violation for the failure to provide an adequate protected area barrier.

(5) Infraction for the failure to perform an adequate search.

(6) Deficiency involving faulty procedures.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

12. Audits, Review and Committee Activities

a. Analysis

Four inspections have been performed during the evaluation period. Three violations were identified.

(1) Severity Level V violation the for the failure to review documents prior to issuance or revision. Similar violations occurred in February 1979, and September 1979.

(2) Severity Level V violation for the failure to correctly identify findings during two audits. A similar item was identified at the Harris facility in June 1980.

(3) Severity Level VI violation for the failure of the corporate nuclear safety unit to review a plant modification.

There has been insufficient management attention placed in these areas.

b. Conclusions - Category 3

c. Board Comments

The board concurs with this rating.

13. Administrative, QA, and Records

a. Analysis

Several inspections during the appraisal period have evaluated these areas. A quality assurance team identified three violations:

(1) Severity Level IV violation resulting from the finding that as of October 29, 1980, proper corrective action had not been taken in response to QA audits. Thirteen items had exceeded established dates without completion of corrective action, eight items had not established

corrective actions, and three items had received no response from responsible plant personnel by the established due date. These inadequacies represented 46 percent of the total (52) QA open items as of that date. Additionally the controlling procedure QAP-2 did not specify the actions to be taken when a response was not received by the due date or the proposed corrective action was inadequate.

(2) Severity Level V violation resulting from the failure to correctly identify as QA Action Items matters discovered during QA surveillance which required corrective action. An Action Item was not written identifying 27 plant QA items which were lacking corrective action or lacking a known status. A QA Action Item was not written when a QA surveillance noted that several control room record books contained obsolete portions of the Plant Operation Manual. A QA surveillance identified as a comment several discrepancies with records of Periodic Tests but no QA Action Item was written.

(3) Severity Level VI violation assessed for the failure to establish measures for the conditional release for installation of nonconforming items.

An additional violation was identified during August 1980:

(4) Infraction concerning a special test procedure for testing concrete expansion anchor bolts that was found to be inadequate because it did not require the testing of anchors on the control rod drive and recirculation systems.

Related violations are discussed in sections 12 and 14. There has been insufficient management attention placed in these areas.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

14. Corrective Actions and Reporting

a. Analysis

Numerous inspections touched on these areas during the appraisal period and the resident inspectors continually evaluated licensee performance in these areas. During the appraisal period Brunswick generated a large number of

Licensee Event Reports (LERs). Several of these LER's were incomplete and/or inaccurate. The licensee has committed to the submission of revised LER's as necessary to correct inaccuracies. Two violations were identified:

(1) Severity Level IV violation on Unit 2 for the failure to promptly report to the NRC when inoperable hydraulic snubbers were identified during functional testing on January 20, 1981, while the plant was operating at 88% power. Although snubber failures during testing first occurred on January 20, the NRC was not notified until March 3. Subsequently on March 4 the unit was shut down and testing of all safety-related snubbers was undertaken.

(2) Severity Level VI violation on Unit 2 for the failure to promptly report an instance of exceeding Limiting Conditions of Operation in the Technical Specifications when all service water to Unit 2 was secured for maintenance. A phone call was made to notify the NRC of the reactor vessel heatup and of exceeding 212°F with primary containment not in effect. However, it was not recognized or reported that securing all service water exceeded a Limiting Condition of Operation.

The licensee's responses to NRR are generally adequate when the scope of the staff's request is clearly defined or a precedent has been identified by or for the licensee. For other submittals the licensee periodically submits technical discussions that are not sufficiently complete to permit meaningful evaluation. It should be noted that the licensee has recently been contacting NRR in advance of a number of plant-unique submittals to gain a better understanding of the issues that need to be addressed in specific submittals. This procedure is helping to reduce the number and scope of NRR originated requests for additional information directed to the licensee.

The licensee normally meets the staff's submission schedules. For areas where the licensee cannot meet commitment dates, they take the initiative in identifying the problem to NRR and negotiating revised schedules. Once the staff identifies an acceptable approach, it generally takes little effort to obtain acceptable responses. The licensee is responsive to staff requests to the extent that such requests do not negatively impact plant availability or operations.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

15. Licensee Event Reports

a. Brunswick Unit 1: 134
Unit 2: 216

b. Unit 1 linked events involved the containment atmosphere oxygen analyzer being inoperative due to moisture in the sample lines, hydraulic suppressors damaged due to water hammer, torus - reactor building vacuum valve activation pressure being out of specification, excessive personnel airlock door leakage, defective rod position indication reed switches, and out of calibration suppression chamber water level recorders. Unit 2 linked events involved rod overtravel annunciators, failures of the primary containment oxygen analyzer, number 4 diesel generator inoperability, steam line temperature switch failures, HPCI steam line delta P and temperature switch problems, moisture in annunciator switches, suppression chamber water level indication trickle flow loss, RHR service pump failure, and high I-131 in reactor coolant.

c. 10 CFR 21 reports: 1.

16. Licensee Activities

A Unit 1 refueling outage occurred during the period May 26, 1980, through August 19, 1980. A "C" Main Steam Line Isolation Valve problem caused a Unit 1 shutdown on March 29, 1981, and resulted in a startup on April 9 with the "C" steam line isolated. This limited reactor power to approximately 87%, based upon maximum steam line flow limitations, until repairs were made following an April 17 shutdown. The unit remained shut down until September 23, 1981 to accomplish various maintenance repairs including the removal of oyster shell accumulations in the Residual Heat Removal System heat exchangers.

Restart was delayed due to unanticipated turbine repairs. Unit 1 remained in routine power operation, with occasional brief shutdowns, for the rest of 1981.

A Unit 2 refueling and maintenance outage occurred during the period March 1, 1980 through September 17, 1980. A "C" Main Steam Line Isolation Valve problem caused a Unit 2 shutdown on January 15, 1981 and resulted in a startup with the "C" steam line isolated. This limited reactor power to approximately 87%, based upon maximum steam line flow limitations, until repairs were made during the February 14 through February 22 shutdown.

During functional testing of accessible snubbers during operation, a high failure rate was encountered. The unit was shut down on March 5 to test inaccessible snubbers. During this outage all safety related snubbers were functionally tested and repaired as necessary. Operation resumed on April 10.

The unit was shut down between May 6, and June 8, to remove oyster shell accummulations in the Residual Heat Removal system heat exchangers and the Service Water System.

On July 2 the "C" inboard main steam isolation valve (MSIV) failed, resulting in a scram. The unit was restarted with three main steam lines operable but the "D" line MSIV failed on July 17. The unit was shut down for 10 days for MSIV repairs. Unit 2 remained in routine power operation, with occasional brief shutdowns, for the rest of the year.

17. Inspection Activities

The routine inspection program was performed during the review period. A QA team inspection was conducted October 20-24 and 27-31, 1980. A Health Physics Program Appraisal team inspection was conducted December 8-19, 1980. A reactive inspection was conducted during the period March 5-7 and 23-26, 1981 in response to a high failure rate of hydraulic snubbers during functional testing.

18. Investigation and Allegation Review

An investigation of offsite releases from the auxiliary boiler and the environmental effluents monitoring programs occurred during the review period.

19. Escalated Enforcement Actions

Immediate Action letter issued September 5, 1980 concerning the licensee's personnel dosimetry program.

Immediate Action letter issued December 24, 1980 concerning actions to be taken to correct deficiencies identified during the Health Physics Appraisal Inspection.

Immediate Action letter issued March 6, 1981, concerning the testing of hydraulic snubbers.

Confirmation of Action Letter issued March 6, 1981 concerning functional testing of Unit 2 hydraulic snubbers prior to restart.

Confirmation of Concurrence Letter issued April 3, 1981, concerning 100% complete inspection of the reinstallation of hydraulic snubbers.

Civil Penalty dated October 1, 1981 concerning personnel overexposure while performing maintenance on the reactor water cleanup system and associated failure to provide a properly qualified technician in a responsible position.

20. Management Conferences Held During Appraisal Period

A conference was held on October 17, 1980, to discuss the previous SALP findings.

A meeting was held on March 13, 1981, at the licensee's request, to discuss the new licensee QA organization.

An enforcement conference was held on March 30, 1981, to discuss the results of investigation findings concerning offsite releases, environmental monitoring programs, and radiation overexposures.

A meeting was held at the licensee's request on May 8, 1981, to further discuss offsite releases, contamination problems, and effluent monitor inoperability.

An enforcement conference was held on September 16, 1982, concerning personnel radiation overexposure during work on the reactor water cleanup system.

B. Robinson Unit 2

1. Plant operations

a. Analysis

Routine inspections during this review period indicate that the licensee has had problems in adhering to Technical Specification requirements as they relate to plant operations. The licensee has also shown management weakness in fulfilling commitments of post TMI equipment installations in that the equipment has not been installed in accordance with licensee agreements. Additionally, provisions for maintenance and surveillance testing of the equipment were not contemplated. The following violations were identified in the area of plant operations:

(1) Severity Level IV violation for defeating the safety feature of a turbine runback on rod bottom bistable for rod drop protection without a safety review.

(2) Severity Level IV violation in that a maintenance program had not been implemented such that work requests had not been initiated on nonconforming conditions in the primary sampling system.

(3) Severity Level IV violation for conducting inadequate safety reviews of changes to the facility radioactive waste processing and storage equipment, and to waste handling procedures.

(4) Severity Level IV violation for failing to implement procedures for post-maintenance checkout and return to service of a containment spray flowpath.

(5) Severity Level V violation for allowing a malfunctioning containment pressure indicator to remain in service without verifying that its associated engineered safety feature would actuate.

(6) Severity Level V violation for taping open the containment isolation valves' operating switch for the pressurizer liquid space sample line, making the valves unable to respond automatically to a containment isolation signal.

(7) Severity Level V violation for written administrative policies not identifying the instrumentation to which quality standards applied (nuclear instrumentation system excepted).

(8) Severity Level V violation for failing to implement procedures for the control of auxiliary feedwater system wire removal activities.

(9) Infraction for isolating the cover gas nitrogen regulator for the Chemical Volume Control System hold-up tanks without a safety review.

(10) Infraction for the handling and storage of radioactive waste being conducted without the benefit of a written procedure.

(11) Deviation for degrading the installation of the reactor core subcooling monitor in that only a single channel was energized which utilized temperature input from only one hot leg and one core exit thermocouple.

(12) Deviation for failing to monitor the safety relief valve position indication as committed.

The number of violations identified in the area of plant operations which is indicative of the need for licensee corrective action in this area.

b. Conclusion - Category 2

c. Board comments

The board concurs with the rating.

2. Refueling operations

a. Analysis

One inspection was performed in this area with no violations or deviations identified.

b. Conclusion - Category 2

c. Board comments

The board concurs with the rating.

3. Maintenance

a. Analysis

The routine inspection program identified one violation in the maintenance area:

Infraction for maintenance procedures either not being established or followed resulting in four examples of electrical or seismic support nonconformances.

b. Conclusion - Category 2

c. Board comments

The board concurs with the rating.

4. Surveillance and Inservice Testing

a. Analysis

There were two inspections of inservice inspection activities in the area of NDE during this evaluation period. Inspection was also performed of the surveillance area. There were no violations or deviations as a result of inspections in the inservice testing program.

The licensee is in the process of a reorganization and realignment of Quality Assurance and Quality Control functions. This reorganization should result in improvement in the inservice inspection and testing areas.

In the surveillance area, two violations and a deviation were identified. These were:

(1) Severity Level V violation for the Residual Heat Removal system integrity surveillance not being conducted as required by Technical Specifications.

(2) Severity Level VI violation in that no surveillance procedure verified that the containment isolation valves for the letdown line or for the containment air sample lines properly responded to a containment isolation signal.

(3) Deviation in that the TMI Lessons Learned short term requirement 2.1.6.A, a portion of the continuing leak reduction program, was not completed as committed.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating and recommends increased inspection activity in the area of inservice testing.

5. Personnel, Training, and Plant Procedures

a. Analysis

Routine inspections indicate management weakness in the area of plant procedures. The following violations and deviations indicate a need for improvement in this area:

(1) Severity Level IV violation in that an inadequate procedure allowed an employee to deenergize the heat trace circuits for both 'A' and 'B' boric acid transfer pumps, thus violating a limiting condition for operation.

(2) Severity Level IV violation where inadequate procedures allowed improper setting of breaker overload trip settings on four motor operated containment isolation valves.

(3) Severity Level V violation in which an inadequate procedure resulted in twelve annunciator windows on the turbine generator board being incorrectly described.

(4) Severity Level V violaton where written procedures were not established or implemented for changing modes of operation of safety related systems or for correcting off-normal conditions for those events where system complexity could lead to operator confusion.

(5) Infraction in that the procedure for pipe stress review and analysis had no reference of acceptance criteria on dimensional tolerances for safety-related supports.

(6) Infraction in that the field document used to verify as-built clearances for a safety-related system did not contain the record of inspection for clearances on all four sides of the piping at wall penetrations.

(7) Infraction in that the licensee did not prepare an operating procedure for operation of the core subcooling margin meter.

(8) Deviation in that contrary to a commitment to NRR the licensee failed to include in an emergency procedure a description of how to calculate the subcooling margin using steam tables.

One specific violation was identified in the area of training:

(9) Severity Level V violation for the failure to follow the reactor operator requalification requirements of 10 CFR 55 Appendix A in that lectures were not given on procedures, plant modifications, Technical Specification's or applicable 10 CFR sections.

Results of operator licensing examinations during the appraisal period show that four of five reactor operator applicants passed and one of four senior reactor operator applicants passed.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating.

6. Fire protection and housekeeping

a. Analysis

The areas of fire protection and housekeeping were included in the routine inspections conducted by the resident inspector. No violations were identified. Two inspections in the fire protection area were performed by a regional based inspector during this evaluation period. The licensee's implementation of the fire protection program was satisfactory with the exception of the following violations:

(1) Infraction for the failure to follow the fire prevention welding and cutting procedures requirements.

(2) Infraction for the failure to follow storage requirements procedures for fire protection system components.

During this evaluation period the licensee revised the fire protection administrative procedures tc conform to the NRC requirements. Adherence to these proce(ures was satisfactory.

b. Conclusion - Category 2

c. Board comments

The board concurs with the rating.

7. Design Changes and Modifications

a. Analysis

Routine inspections in this area revealed no violations.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

8. Radiation Protection, Radioactive Waste Management, and Transportation

a. Analysis

Routine resident inspections, an HP Appraisal, and four reactive inspections were performed during the evaluation period. The violations and findings indicate management weaknesses in this area. The violations were:

(1) Severity Level III violation for the failure to provide appropriate personnel monitoring devices and failure to conduct adequate surveys or evaluations of radiation hazards associated with steam generator maintenance.

(2) Severity Level III violation for overexposure of three individuals during steam generator maintenance. Two individuals had calculated total occupational whole body doses of 3.124 rem and 3.257 rem during the third calendar quarter of 1980. The third individual received a whole body dose of 3.109 rem in

the second calendar quarter of 1981. The three exposures exceeded the 10 CFR 20.101(b) limit of 3 rem per calendar quarter.

(3) Severity Level III violation for repeat overexposures of an individual marking steam generator tubes. One individual received a total occupational whole body exposure of 1.308 rem in the third calendar quarter of 1981. This exposure exceeded the 10 CFR 20.10(a) limit of 1.25 rem per calendar quarter which was applicable because the licensee did not have adequate documentation of previous exposure history.

(4) Severity Level III violation for the failure to follow plant health physics procedures concerning steam generator maintenance which contributed to a personnel overexposure.

(5) Severity Level IV violation for using a radiation control technician with less than two years of applicable health physics experience in a responsible position of monitoring and controlling worker dose during steam generator maintenance. Two years of applicable health physics experience is required by technical specifications.

(6) Severity Level IV violation for not providing a dose rate survey instrument to an individual working in a high radiation area.

(7) Severity Level V violation for the failure to furnish to the NRC Termination Exposure Reports within the 30 day limit.

(8) Severity Level V violation for the failure to perform measurements of airborne radioactivity concentrations and personnel intake of radioactive material.

(9) Severity Level V violation for not insuring that at least Grade "D" breathing air was provided for respiratory protective equipment.

(10) Severity Level V violation for not following radiation protection procedures in the areas of respiratory protection and radiation work permit requirements.

(11) Severity Level V violation for the failure to maintain or preserve radiation survey records.

(12) Severity Level VI violation for improper disposal of licensed material in a manner not specifically authorized in the regulations and without prior Commission approval.

The first two Severity Level III violations appeared to be attributable to a lack of adequate personnel monitoring during steam generator entries and health physics controls of steam generator platform work. The licensee conducted additional HP training, and revised procedures for personnel monitoring and HP job coverage.

The subsequent violations were due to inadequate corrective action for the earlier civil penalty violations which also resulted in personnel overexposures.

The findings of the Health Physics Appraisal Team identified weaknesses in the external exposure control program, personnel contamination control program, radiological surveillance program, and the assessment of the consequences of operation of contaminated auxiliary boilers which resulted in the issuance of an Immediate Action Letter. An additional Immediate Action Letter was issued regarding the licensee's corrective actions dealing with contamination of the on-site fossil fuel unit.

b. Conclusion - Category 3

c. Board Comments

The board concurs with the rating. The board recommends increased inspection effort in this area to confirm the effectiveness of corrective actions already initiated by the licensee.

9. Environmental Protection

a. Analysis

One environmental inspection was performed during the period. No violations were identified. Overall performance and management in environmental protection areas has been good.

b. Conclusion - Category 1

c. Board Comments

The board concurs with the rating.

10. Emergency Preparedness

a. Analysis

Three inspections have been conducted during the period July 1, 1980 through February 5, 1982; these involved evaluation of a full-scale emergency exercise (March 1981), evaluation of a small-scale exercise (December 1981), and an emergency preparedness appraisal (January/February 1982). Several deficiencies during the March 1981 exercise resulted in RII issuing a Confirmation of Action letter. (One violation (Severity Level V) and two emergency preparedness deficiencies were identified during the early 1982 appraisal of the licensee's 1981 performance.) Based on this appraisal and the December 1981 small-scale exercise, improvement in the state of emergency preparedness was attained during 1981.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

11. Security and safeguards

a. Analysis

During the SALP appraisal period five physical security inspections were conducted at the licensee facility. Additional observations were made by the resident inspectors during normal plant tours. During this appraisal period, four Level V violations were identified. The licensee's site security management is enhanced by a corporate management program with apparent security emphasis. The licensee provides prompt and responsive corrective action on identified items when necessary. The licensee experienced maintenance and repair problems in the area of security equipment and hardware. Violations occured in access controls and barriers as evidenced by the following enforcement items:

(1) Severity Level V violation for the failure to record alarm responses.

(2) Severity Level V violation for the failure to develop adequate compensatory measures.

(3) Severity Level V violation for the failure to void access authorizations.

(4) Severity Level V violation for the failure to control vital area access.

b. Conclusion - Category 2

c. Board Comments

The board concurs in the rating.

12. Audits, Review and Committee Activities

a. Analysis

Five inspections were performed during the evaluation period. No violations were identified.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

13. Administrative, QA and Records

a. Analysis

Four inspections were performed during the evaluation period. One violation was identified:

. Severity Level V violation for the failure to implement drawing control procedures which resulted in out of date drawings being used in the plant.

There are several QA inspection items that have remained open since 1979 due to incomplete corrective action.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

14. Corrective Actions and Reporting

a. Analysis

There were no violations identified in this area.

In reporting to NRR, the licensee's responses are generally good. The licensee is usually very responsive to NRR requests. Over the past year, they have performed satisfactorily in view of the heavy burden of requests placed on them. If the licensee disagrees with an NRC position, they are not hesitant to inform the NRC and state what the

licensee thinks is acceptable. The licensee usually takes measures to initiate discussion of any differences.

The licensee has made efforts to improve the tracking of response requirements so that their responses can be timely.

The licensee has been reluctant and slow to correct deficiencies in TMI required equipment.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

15. Licensee Event Reports

a. Robinson Unit 2 - 51

b. A linked event involving heat tracing failures on the boric acid lines was identified.

16. Licensee Activities

A refueling outage occurred during the period August 8, 1980, through October 25, 1980.

The licensee limited power to 2200 Mwt during the period July 1, through August 8, 1980, due to excessive moisture carryover to the main turbine. Steam generator moisture separator modifications were performed during the August 8, 1980, refueling outage which corrected the problem. The licensee also limited power to 2200 Mwt during the period February, 1981, through the end of the SALP review period. The power reduction is an attempt by the licensee to reduce the rate of steam generator tube degradation. Other major modifications included TMI and fire protection work.

17. Inspection Activities

A Health Physics Team Appraisal was conducted January 26, through February 6, 1981. A radiological Emergency Drill was held March 9, through 13, 1981. A Performance Appraisal Team inspection was held June 22, through July 17, 1981.

18. Investigation and Allegations Review

No major investigation activities occurred during the review period.

19. Escalated Enforcement Actions

a. Civil Penalties

May 12, 1981 - Civil Penalty concerning personnel overexposure while performing steam generator maintenance and associated failures to conduct appropriate personnel monitoring and evaluation of radiation hazards.

December 1, 1981, Civil Penalty concerning failure to follow procedures for steam generator repairs and radiation permits resulting in an overexposure, and permitting unqualified personnel in responsible positions.

b. Immediate Action Letters

February 10, 1981 - involving significant deficiencies from the Health Physics Appraisal Team Inspection.

March 31, 1981 - involving emergency preparedness deficiencies identified during an emergency exercise.

April 24, 1981 - involving contamination of Unit 1 (non-nuclear plant) due to contaminated Condensate Storage Tank water.

20. Management Conferences Held

A conference was held on October 17, 1980, to discuss the previous SALP findings.

A conference was held on March 13, 1981, to discuss the new licensee QA organization.

An enforcement conference was held March 30, 1981, to discuss overexposure during steam generator work.

C. Harris Units 1 and 2

1. Quality Assurance

a. Analysis

Twenty-four inspections were performed during the evaluation period in which all or a portion of those inspections were devoted to QA performance. Three violations were identified during the review period as falling within the area of quality assurance. Two of these violations concerned failure to follow procedures and one violation was for inadequate QA records review. The violations are as follows:

(1) Infraction for rod caddies not being protected, allowing loose electrodes to get wet.

(2) Infraction for failing to follow procedures for housekeeping, storage, and document control.

(3) Deficiency for a Deficiency and Disposition Report (DDR) not being properly maintained. The technical report which justified the acceptance of the conditions described in the DDR was incomplete.

The violations related to QA performance were minor, non-repetitive, and did not indicate a major breakdown of management controls.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

2. Site Preparation and Foundation

a. Analysis

Three inspections were performed by regional inspectors on earthwork construction activities. The resident inspector also performed inspections in this area. One violation was identified.

Deficiency for failure to control construction dust at the site.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

3. Containment Structure

a. Analysis

Three inspections were performed by regional inspectors during the evaluation period. The resident inspector performed additional inspection activity in this area as a part of the routine program. In addition, an investigation of allegations made by an individual concerning improper concrete construction practices was performed. The allegations could not be substantiated.

Two violations were identified as follows:

(1) Severity Level VI violation for the failure to store concrete test cylinders within the prescribed temperature limits.

(2) Severity Level VI violation for failure to follow ASTM procedures in testing concrete cylinder samples.

These violations were not considered to be an indication of a breakdown in the QA Program in this area.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

4. Safety-Related Structures

a. Analysis

Two inspections were performed during the evaluation period in the area of safety-related structures. One violation was identified:

Severity Level V violation for the failure to follow procedures in that fuel pool liner welds were not inspected for fitup, and monitoring inspections were not documented.

This violation does not indicate a program breakdown in this area.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

5. Piping and Hangers

a. Analysis

Six inspections were performed in this area in addition to the routine inspections performed by the resident inspector in the area of piping and hangers on reactor coolant piping and other systems. Six violations were identified as follows:

(1) Infraction for the failure to correctly translate and implement codes and standards for special processes.

This infraction resulted in the licensee documenting and reporting deficient pipe hanger welds as a construction deficiency report (CDR) on September 9, 1980. The infraction resulted from the improper use of weld symbols by the hanger designer, welders not being familiar with the meaning of welding symbols, inspection personnel not being familiar with weld symbols, and inspection personnel not reporting weld deficiencies on pipe hangers. In several instances welds were undersized and many incorrect type welds were applied. The applicant implemented a re-inspection program for the hangers which had been accepted prior to the infraction being identified. An extensive review was conducted of the hanger design drawings, requiring numerous changes to comply with code requirements for weld symbols. The site training of welders was upgraded to require that welders be more familiar with the application of weld symbols. Several hangers required rework and some welds had to be cut out, reapplied and reinspected.

(2) Infraction for improper magnetic particle examination. This infraction involved using improper methods to remove magnetic particle powder and inadequate lighting.

(3) Severity Level VI violation concerning inadequate procedures for welder qualification. The violation resulted from the licensee having a qualification procedure which failed to include the dimensions as specified by the ASME welding code. The procedures did not address coupon thickness or dimension tolerances. The applicable practices and procedures were revised to be more specific.

(4) Deficiency concerning welder performance qualification records. The records for the qualifications of welders did not indicate that in some instances welders were qualified to multi-process procedures. As a result, this concern was reviewed by the licensee and welders qualification records were up-graded to expand the welders qualification.

(5) Deficiency for the failure to control out-dated installation drawings. The deficiency resulted from a review of drawings associated with the installation of hangers for class 1E cable tray and HVAC supports. A number of drawings were found not to be of the most current revision. The licensee conducted a survey of other areas and found that the practice of not properly controlling out-dated drawings was limited to one group of welders and that no work had actually been completed incorrectly. Workers were advised not to allow this

condition to occur again. Subsequent inspections have not identified similar instances.

(6) Deficiency for the failure to provide instructions for verification data collection and reporting. The deficiency resulted from responsible inspection personnel not being aware of and implementing checklists to preclude installation or burial of underground piping prior to inspections being completed. The deficiency occurred because the applicable implementing procedure had been revised to include the checklists at or near the time when the inspections were supposed to have been completed. Also, the implementing procedure failed to clearly depict when and who was required to inspect and sign the checklist. The applicant subsequently revised the procedure and there have been no recurrences.

The above violations are not indicative of a breakdown in the licensee's QA program.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

6. Safety-Related Components

a. Analysis

One inspection was performed in the area. Additionally, the resident inspector examined this area as part of the routine inspection program.

Two violations were identified:

(1) Severity Level VI violation for the failure to store equipment in accordance with instructions for the prevention of damage or deterioration. Feedwater valve FW-V-28 was not stored in accordance with ANSI N45.2.2 "B" level storage requirements. The valve was stored outdoors, unprotected from the elements.

(2) Deficiency for the failure to clearly establish duties and responsibilities for QA personnel. The licensee's procedures did not clearly delineate who was responsible for witnessing or inspecting the in-process maintenance of safety-related equipment.

The above violations are not indicative of a breakdown in the licensee's QA program.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

7. Electrical Systems

a. During this evaluation period, one inspection was conducted in this area. One violation was identified.

Severity Level V violation for the improper installation of a class 1E conduit box. The installation was performed by craft personnel without approved drawings or authorization.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

8. Instrumentation and Wire

No inspections were performed in this area during this evaluation period. Construction activities have not started in this area.

9. Fire Protection

a. Analysis

The general area of fire protection was the object of three inspections by the Resident Inspector.

No violations were identified.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

10. Preservice Inspection

No inspections were performed in this area.

11. Corrective Actions and Reporting

a. Analysis

This area was routinely evaluated by the resident inspector during the performance period. One violation was identified in this area:

Severity Level V violation for the failure to correct improper reinforcing steel storage. Sufficient corrective action was subsequently taken to rectify the conditions identified in the violation.

Since early 1981, there has been a signficant decrease in the number of events identified at the Harris site through their CDR and Part 21 reporting system when compared to the previous number of reports.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

12. Procurement

a. Analysis

During the appraisal period this area was routinely evaluated by the resident inspector. Four violations were identified and discussed in other functional areas, that relate in part to this area. The corrective actions taken by the licensee were satisfactory to resolve the specific concerns identified. In general, the site storage areas and receiving areas, outside the power block, were maintained in good condition. However, the housekeeping and cleanliness condition of the power block and equipment being stored in the construction areas within the power block were not always adequate.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

13. Design and Design Changes

a. Analysis

One inspection has been performed in this area. No violations were identified.

The licensee identified one item in this area as potentially reportable. The item concerned the failure to have suffi-

cient interface between their design engineer and their reactor nuclear steam system supplier (NSSS) in regard to design changes to inputs used by the NSSS supplier for its design. Early in 1981, Region II conducted an evaluation of site initiated design changes which resulted in no enforcement findings.

The licensee has required that the designer of site pipe supports provide on-site personnel to evaluate and input as required to resolve design problems that may be encountered during the erection of pipe hangers. The assignment of these personnel resulted from a previous violation that related to the installation of pipe hangers.

b. Conclusion - Category 2

c. Board Comments

The board concurs with the rating.

14. Training

a. Analysis

The licensee was routinely evaluated in this area by the resident inspector. The evaluations were conducted during observations of welding, QA inspections of welding activities, receipt inspections, storage inspections, concrete batching and placing, electrical system activities , and mechanical equipment activities. Four violations were identified during this evaluation period which related to, or were as a direct result of, not having adequately trained or qualified personnel performing assigned activities. These violations were as follows:

(1) Severity Level V violation for the failure to require the designated site inspection personnel to perform inspections at designated hold points. The licensee indicated that this violation occurred because the applicable implementing weld inspection procedure did not correctly identify those components which were required to be inspected by the site inspection (QA) personnel. The implementing procedure was revised and there have been no similar noncompliances identified during subsequent inspections.

(2) Severity Level V violation concerning inadequate procedures for qualification of inspecting personnel. This violation resulted from poor implementing procedures and inattention to industry standards regarding the experience and educational requirements

invoked by those standards. The implementing procedures allowed a supervisor to lead the inspection effort in an area, such as electrical, in which he had no previous experience or education. This violation was discussed between senior representatives of the utility and the Region II Administrator on March 13, 1981 in the RII regional office.

Subsequently, the licensee revised the applicable implementing procedures and has been making efforts to hire more qualified site inspection personnel. The region has reviewed the revised procedures and has evaluated the qualifications of civil and welding inspection personnel. As a result of these limited evaluations, two other violations were identified as discussed below.

(3) Severity Level VI violation for the failure to stay abreast of procedural revisions in areas of inspector certification. This violation resulted from a subsequent evaluation of inspector qualifications identified in (2) above. The violaton involved the failure of civil inspectors to maintain their familiarity with the most current procedural requirements for areas in which they were certified to inspect. The licensee has required that the various levels of inspectors must review current procedural requirements and document that they have reviewed the procedures.

(4) Severity Level VI violation for failure to accurately reflect training and experience in the training records. This violation resulted from a subsequent evaluation of inspector qualifications identified in (2) above. The violation resulted from the training records for one of the welding inspectors which showed one year's prior inspection experience, and where interviews with the inspector indicate that the individual actually had only ten months prior inspection experience.

b. Conclusion - Category 2

c. Board Comments

The board concurs in the rating. Evaluation of the qualifications of inspection personnel as they apply to the violation identified in (2) above will continue.

15. Reports Data

a. Construction Deficiency Reports

Unit 1 - 11
Unit 2 - 8

b. Part 21 Reports

Unit 1 - 5
Unit 2 - 5

16. Licensee Activities

Continued progress in the construction of the plants occurred during the review period. A reinspection of all pipe hanger installations was performed based upon deficiencies identified by NRC inspectors.

17. Inspection Activities

A resident inspector reported to the site on July 21, 1980. A construction team inspection was held during the period September 29, through October 3, 1980.

18. Investigations and Allegations Review

No major investigative activities occurred during the review period.

19. Escalated Enforcement Actions

No escalated enforcement actions occurred during the evaluation period.

20. Management Conferences Held During Appraisal Period

A conference was held on October 17, 1980 to discuss the previous SALP findings.

A conference was held on March 13, 1981 to discuss the new licensee QA organization.