

SALP BOARD REPORT
U. S. NUCLEAR REGULATORY COMMISSION
REGION V
SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
50-397/87-06
WASHINGTON PUBLIC POWER SUPPLY SYSTEM
WNP-2
FEBRUARY 1, 1986 THROUGH MAY 31, 1987

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I. INTRODUCTION

A. Purpose and Overview

The Systematic Assessment of Licensee Performance (SALP) is an NRC staff integrated effort to collect available observations and data on a periodic basis and evaluate licensee performance based on this information. SALP is supplemental to normal regulatory processes used to ensure compliance with NRC rules and regulations. SALP is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to licensee management to promote quality and safety of plant construction and operation.

An NRC SALP Board, composed of the members listed below, met in the Region V office on July 7, 1987, to review the collection of performance observations and data to assess the licensee's performance in accordance with the guidance of NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance," dated July 25, 1986. A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance at WNP-2 for the period February 1, 1986 through May 31, 1987.

B. SALP Board for WNP-2

- ** D. F. Kirsch, Director, Division of Reactor Safety and Projects, Region V (Board Chairman)
- ** G. W. Knighton, Director, Project Directorate No. 5, NRR
- ** J. O. Bradfute, NRR Project Manager
- * R. B. Samworth, NRR Project Manager
- ** F. A. Wenslawski, Chief, Emergency Preparedness and Radiological Protection Branch
- ** P. H. Johnson, Chief, Reactor Projects Section 3
- * M. D. Schuster, Chief, Safeguards Section
- * S. A. Richards, Chief, Engineering Section
- ** R. T. Dodds, Senior Resident Inspector
- ** C. W. Caldwell, Project Inspector
- * G. M. Good, Emergency Preparedness Analyst
- * L. R. Norderhaug, Safeguards Inspector

* Denotes voting member in area of specialty

** Denotes voting member in all areas

II. CRITERIA

Licensee performance is assessed in selected functional areas, depending upon whether the facility is in a construction, preoperational, or operating phase. Functional areas normally represent areas significant to nuclear safety and the environment. Some functional areas may not be

addressed because of little or no licensee activities, or lack of meaningful observations. Special areas may be added to highlight significant observations.

The following evaluation criteria were applied for each of the eleven functional areas as appropriate:

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

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 definitions of these performance categories are:

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 so that a high level of performance with respect to operational safety 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 so that satisfactory performance with respect to operational safety 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 so that minimally satisfactory performance with respect to operational safety is being achieved.

III. SUMMARY AND RESULTS

Management Overview

The Supply System has made significant enhancements to some programs in response to the SALP Board's recommendations in the previous SALP report. Examples of these program enhancements are in the areas of Operations, Quality Assurance/Quality Control (QA/QC), Emergency Preparedness, and Training. Enhancements have been made, but continued efforts should be applied, to the reduction of unwarranted control room annunciators and the scram reduction program. A need for improvement was identified in various areas. These areas include the need for more rigor in the performance of maintenance and surveillances, health physics program implementation, assessment of readiness for return to operation following

outages, and post-trip programs and implementation. Further, the number of personnel errors needs to be reduced through greater attention to detail by craftsmen, technicians, and first-line supervisors. In addition, this should be supplemented by improved training and assessment of the pre-job-performance knowledge levels.

Assessment Results

<u>Functional Area</u>	<u>Assessment Last Period 2/85-1/86</u>	<u>Assessment This Period 2/86-5/87</u>	<u>Trend*</u>
A. Plant Operations	2	1	
B. Radiological Controls	2	2	
C. Maintenance	2	2	Improving
D. Surveillance	2	2	
E. Fire Protection	3	2	
F. Emergency Preparedness	2	1	Improving
G. Security and Safeguards	2	2	Improving
H. Outages	1	2	
I. Quality Programs and Administrative Controls Affecting Safety	2	1	
J. Licensing Activities	2	2	Improving
K. Training and Qualification Effectiveness	2	1	

* The trend indicates the SALP Board's perception of the licensee's performance during the current assessment period. It is not necessarily a comparison of performance during the current period with the previous period. NRC Manual Chapter 0516 states that discussion of performance trend should be reserved for those instances in which the Board believes it is necessary to focus NRC and licensee attention on an area because of a declining performance trend, or to credit licensee performance because of an improving trend

IV. PERFORMANCE ANALYSIS

A. Plant Operations

1. Analysis

During this SALP period the licensee's plant operations activities were inspected on a routine basis by the resident inspectors and regional inspection staff. In addition, a team inspection performed in June 1986 included assessment of operator recovery actions and understanding of procedures governing normal, off-normal and emergency conditions. A total of more than 1600 hours of inspection effort were expended in the area of Plant Operations.

The previous SALP Board identified six areas warranting licensee consideration: (1) procedure upgrade program, (2) post-trip reviews, (3) Control Room logs, (4) equipment status, excessive number of Control Room annunciators, (5) reduction of reactor scrams and (6) timeliness of required reading. The licensee has developed and implemented a specific ongoing action plan for each issue. While these areas will always need attention, substantial improvement has been observed in each area as follows:

- Procedure quality has been upgraded by the addition of a full time Procedure Coordinator holding an SRO license. A quality review program for operating and abnormal condition procedures has been initiated. A procedure guidance document was issued in June 1987 that incorporates the applicable areas of INPO instructions for generating and reviewing procedures. As a matter of reference, there were only 4 reportable events pertaining to plant operations during this SALP period which were attributed to defective procedures.
- Post-trip review and recovery procedures have been revised to provide increased objectivity and formal review by the Plant Operations crew and supporting personnel prior to leaving the site subsequent to a trip. Additionally, either the Plant Operations Manager or the Assistant Plant Operations Manager attends all post-trip review meetings. This practice was initiated to focus attention on capturing all pertinent event details. The "Trip Followup" meeting is attended by key department individuals. The elements of root cause analysis and the Human Performance Evaluation System (HPES) have been incorporated into the followup meeting and trip report. Additionally, the Plant Manager holds a restart meeting with cognizant plant staff to review all pertinent details associated with the trip and associated corrective action before approving plant startup. While the program has been strengthened, the inspectors found the Followup Review Committee to be reluctant to question the principals on factors affecting operational decisions for a loss of feedwater event and subsequent overfill of the reactor pressure vessel that occurred on March 22, 1987. However, Plant Management was aggressive in evaluating personnel performance to assure that the lessons learned would be passed on during subsequent training sessions. A number of plant events during restart from the second refueling outage (after the close of this SALP period) indicated a need for further strengthening of the root cause analysis program.
- Operations management has continually monitored and emphasized the need for openness and full disclosure of facts in the Control Room logs. The administrative procedure governing operating logs has been revised to

better define the significant information to be logged, and requires the Control Room Supervisor to review log entries for accuracy and content prior to shift turnover. A substantial improvement in the quality of the logs has been observed.

- ° The number of activated equipment alarms has steadily decreased throughout the report period with substantial reductions occurring during the R-1 and R-2 refueling outages. In addition, a Control Room alarm status book is used to list all alarms and their respective cause. This book has been updated weekly as a regular periodic surveillance requirement. The status of activated alarms and plant equipment is reviewed by each Control Room Operator/Supervisor with their counterparts during shift turnover and control board walkdowns.
- ° The licensee has initiated a number of activities to reduce the number of unplanned plant trips including: expanded root-cause determination and scram followup program; human performance evaluation program; troubleshooting control procedure; resolution of hardware reliability issues; and active participation in the BWROG's Scram Frequency Reduction Committee. These efforts have not been fully effective in that there were 8 scrams during this 16-month SALP period compared with 9 during the previous 12-month SALP period. Events experienced during the startup following the R-2 outage (5 scrams) indicate that the execution of the root-cause analysis and post-trip review programs still warrants attention.
- ° The required reading procedure was revised to reflect that the on-duty Shift Support Supervisor will assure that all shift members have completed any required reading during the shift's cycle week. This same revision also reflects that Plant Operations management will approve all items being added to the required reading packages. The review of required reading files indicates that these changes have been effective.

Corporate and plant management were visibly active in observing plant operations, their presence being observed around the facility on a regular basis, including backshift. The inspectors found management to be attentive and, generally, to have provided timely resolution of issues as evidenced by the response to the previous SALP Board concerns.

There were 8 reactor trips during this rating period, none of which was attributed to operator error. There were no violations identified in this functional area, nor did the licensee identify any violations of Technical Specifications. While there were 23 LERs, they mostly were attributed to design/construction deficiencies or component failures. Event

reports were timely and complete, and included proposed corrective action to preclude recurrence. A significant operator error during the March 22, 1987 feedwater pump trip event resulted in the introduction of water into the steam lines on three occasions before the problem was corrected. However, the shift manager did not update the NRC Operations Center on the subsequent problems associated with the event. Management has initiated corrective action to assure that the NRC is kept informed of significant changes in plant conditions. Otherwise, operator performance in response to this and other events was perceived to have been effective.

It appeared that the licensee developed a clear understanding of technical issues associated with LERs and initiated technically sound resolutions to these issues. Plant modifications were made to enhance operability, such as those for the feedwater control system to provide improved control of reactor water level during startup and following a reactor trip.

Operations staffing remains stable and the enrollment of additional personnel into the operator/senior operator qualification program continues. The licensee's Reactor Operator, Senior Reactor Operator and Non-licensed Operator training programs have been fully accredited by INPO. The NRC assessed INPO's program for accreditation at WNP-2 and found it to be acceptable without question.

A substantial number of off-shift inspections have been conducted including nights and weekends. Personnel were observed to be attentive and professional in the conduct of their duties. In addition, there has been a substantial improvement in housekeeping with the establishment of Area Coordinators with housekeeping responsibilities.

2. Conclusion

Performance Assessment - Category 1.

3. Board Recommendation

Management is encouraged to assess the adequacy and completeness of established post-trip review programs. The post-trip Followup Review Committee should aggressively pursue human performance problems. The program for reduction of unwarranted annunciators should be continued with vigor, as should the program for reactor trip reduction. Current events indicate that the execution of the root-cause analysis program still warrants attention.

B. Radiological Controls

1. Analysis

A total of eleven routine NRC inspections related to radiological controls were performed during the appraisal period. Also, inspections by the resident inspectors focused on the implementation of the radiation protection program. In excess of 600 hours were expended in the following functional areas:

- (A) Occupational Radiation Safety
- (B) Radioactive Waste Management
- (C) Radiological Effluent Control and Monitoring
- (D) Transportation of Radioactive Materials
- (E) Water Chemistry Control
- (F) Licensee Event Reports (LERs)

Two severity level IV violations were identified during the previous SALP period (February 1985 through January 1986). The violations were related to posting of radiation areas and were characterized as isolated instances not representative of a programmatic problem. Additionally, the previous assessment period identified weaknesses in the implementation of the radioactive waste management and ALARA programs. During this appraisal period three major examples of management involvement in ensuring quality were noted. Specifically, previously identified weaknesses in the area of personnel dosimetry were corrected and the Supply System was certified by the National Voluntary Laboratory Accreditation Program (NVLAP); the program to reduce occupational exposure (ALARA) was improved; and water chemistry control measures continued to be effectively implemented. Several violations seem to indicate a lack of involvement by lower levels of management to verify that rudimentary tasks like posting of radiation areas, control of contaminated vacuum cleaners, performance of routine and special surveys, and calibration of radiation survey instruments are being accomplished as required.

Resolution of technical issues related to inspection findings identified during this appraisal period was sound, thorough and timely. Two matters, one involving the balancing of the reactor building HVAC system and the other involving anomalies identified with the neutron and extremity dosimetry programs, were resolved through the efforts of the licensee's site and corporate technical staff.

The licensee has been timely and responsive to NRC initiatives. For example, an expressed concern involving the lack of formality and procedures for determining occupational exposures resulting from personal clothing contamination occurrences resulted in the immediate establishment of appropriate procedures by the licensee's staff. Inspector-identified anomalies with the documentation of radioactive liquid waste sampling analysis results and inadequate supervisory review of analysis data also resulted in the immediate implementation of appropriate corrective actions by management.

Ten Severity Level IV violations and one Severity Level V violation were identified during this assessment period. The violations involved the following areas and, although not pervasive, they are demonstrative of a lack of attention to detail.

- Servicing, monitoring and control of radioactive material vacuum cleaners
- Posting of high radiation areas and radiation areas
- Control and calibration of portable radiation monitoring equipment
- Monitoring (e.g. surveys) of equipment and work areas
- Compliance with radiological work procedures involving repair functions and personal clothing contamination occurrences.

These violations represent a need to improve performance in the occupational radiation safety sub-part of the radiological controls area. However, it was noted that the licensee's program has been effective in that no overexposures have occurred even in light of the work that was performed on the reactor recirculation pumps in high radiation areas. No major operational events were identified during this appraisal period. Only two LERs were submitted in this functional area during the period. Effective corrective action was taken for both in a timely manner.

The qualifications of the licensee's permanent and contract Health Physics Technician staff were satisfactory; personnel were experienced and turnover was low. Health Physics Technician manning during outage periods for Cycle 2 and Cycle 3 outages appeared marginal as indicated by the amount of technician overtime required and the previously noted violations involving the lack of attention to detail. Technical support staffing at the corporate and site level was good.

2. Conclusion

Performance Assessment - Category 2.

3. Board Recommendations

Management should focus attention on the increased number of violations documented during this assessment period, and the need for increased staffing levels should be evaluated. Attention needs to be directed towards full implementation of the rudimentary aspects of the radiological controls program. In addition to the need for additional attention to rudimentary details by technicians and first line supervision, additional

emphasis should be made to the entire plant staff of each individual's responsibility for day-to-day implementation of the radiation protection program.

C. Maintenance

1. Analysis

During this SALP period the maintenance program was inspected on a routine basis by the resident inspectors and regional staff. In addition, a team inspection performed in June 1986 included an assessment of maintenance activities.

There were nine LERs attributed to maintenance activities during the report period. Of these, six were the result of personnel error, one of which resulted in a reactor trip. Several of these and other instances were attributed to a lack of attention to detail, which management was quick to recognize and pursue with vigor. During the early part of the SALP period, six violations were identified in this area, generally related to documentation deficiencies or failure to follow procedures. Additional craft foremen were added to the staff to enhance the direct supervision of activities to ensure a quality product. Recent experience indicates that corrective action has been effective in this regard as evidenced by lack of repetition.

The licensee was responsive and has effected timely resolution to the previous SALP Board's recommendations. Maintenance Work Requests (MWRs) are being managed on a priority basis with number, backlog, and content reasonably consistent with sound operation. The cold weather protection program was initiated well in advance of need, the implementation of which was monitored by Quality Control. Several programs were initiated to increase plant reliability and/or safety such as the following: a computerized equipment/system monitoring program to detect the onset of negative trends; issuance of a troubleshooting procedure requiring a plan/risk assessment prior to work; and revision of the MWR procedure to include preventive maintenance in conjunction with corrective maintenance; a special preventive maintenance class for environmentally qualified (EQ) equipment with emphasis on strict compliance; and housekeeping and general equipment cleanliness utilizing the Area/Floor Coordinator concept.

A full-time Measuring and Test Equipment (M&TE) Tool Crib with a 24-hour staff was placed in service in October 1986. The M&TE inventory is complete and our inspection experience indicates that strong management controls are in effect in this area. Additionally, substantial improvement has been noted in housekeeping and tool control in connection with in-process maintenance activities and area cleanup following maintenance.

Maintenance faced a substantial number of challenges during this SALP period and, in particular, during the refueling outages. Significant problems were encountered during the modification of the reactor recirculation pumps that were resolved using a technically sound and thorough approach in all cases. The same can be said of other maintenance jobs such as diesel-generator overhauls, motor operated valve repairs, etc.

Several instances have been discovered, in the balance of plant, where equipment has not been properly returned to service following maintenance. In one case, the cooling water valves to the control air system (CAS)-A air compressor had not been reopened upon return to service due to the fact that the cooling water valves were not included in the tag-out record on the work request. In another case, the cooling water to the stator windings of the main generator had been valved out apparently to preclude condensation in the stator. This action had not been logged and was missed during the performance of startup testing. Two other noteworthy instances of personnel error resulted in a loss of shutdown cooling. In one case, incomplete guidance was provided to the maintenance craftsmen and in the other, all information sources were not checked prior to the lifting of a lead.

Another area appearing in need of attention relates to improperly landed electrical leads. Specifically, since June 1986, the licensee has identified seven incidents involving plant wiring mistakes: three of the seven involved manual valve operators, two involved miswired relays, and the other two related to a mislabeled cable and a miswired jumper. Two instances of termination problems were identified: one was a loose connection and the other was a lifted lead. While none of these were of major safety significance, isolated cases of mislabeled leads continue to be discovered.

2. Conclusion

Performance Assessment - Category 2, improving.

3. Board Recommendation

While performance in this area indicates that management has been effective in addressing major issues, additional attention to detail by workers/first line supervisors appears warranted, particularly with respect to wiring deficiencies and restoration of equipment after performance of maintenance.

D. Surveillance

1. Analysis

During the SALP period, the surveillance program was inspected on a routine basis by the resident and regional inspection

staff. In addition, a team inspection performed in June 1986 included an assessment of the surveillance program. Previous SALP recommendations included improvements in procedural adequacy and execution. During this period, plant management made efforts to continue the improvement of the surveillance procedures. Procedures have been revised to insure that critical activities have independent verification, and procedures are reviewed by the Plant Operations Committee (POC) to verify the adequacy of the technical review before issuance. The Instrumentation and Control shop was reorganized to provide for more definitive plant maintenance engineering assignments and to allow more of the foreman's time to be spent in the plant. Technician awareness has also been increased through the use of maintenance shop meetings in which the importance of procedural compliance has been emphasized.

One violation was identified early in the SALP period during the team inspection. Eighteen reportable events occurred during the SALP period, of which eight were due to human performance error, eight were due to defective procedures, and the other two were due to design error and component failure. One personnel error resulted in a reactor scram from 50% power and one procedural error resulted in a reactor scram from approximately 1% power. Three inadvertent automatic starts of emergency safeguard equipment resulted from surveillance activities; two of these inadvertent starts were due to personnel error, and the other one was due to equipment failure. In light of the large number of surveillance activities performed, this is considered to be a low incidence of problems. However, inspection activities have identified a need for greater attention to detail by technicians and first line supervisors in the preparation and implementation of surveillance procedures. Management also recognized that a greater emphasis was needed on reducing personnel errors and has commenced documenting half scrams on a nonconformance report (NCR) so that these conditions can be tracked and corrective action initiated to preclude recurrence. This policy was introduced late in the SALP period.

2. Conclusion

Performance Assessment - Category 2.

3. Board Recommendations

Performance in this area indicates continued management emphasis is warranted to improve attention to detail by technicians and first line supervisors during the performance of surveillances and during the ongoing procedure upgrade program.

E. Fire Protection

1. Analysis

During this assessment period, three inspections were conducted in the area of fire protection. These inspections consisted of two team inspections to assess the licensee's compliance with fire protection program requirements, and a third to follow up on allegations related to fire protection. In addition, the project and resident inspectors provided continuing observations in this area. These inspections identified a number of significant findings, including a total of six violations and one apparent violation which remains pending. One of these violations involved a failure to provide adequate fire barrier protection for designated safe shutdown trains. Four violations involved management ineffectiveness in correcting identified deficiencies related to the control of combustible materials, and the remaining violation involved deficiencies in the implementation of procedures requiring fire protection staff review of plant modifications.

The fire protection program lacked effective licensee commitment and coordination of the various aspects of program implementation during the early portion of this SALP period, as evidenced by the number and nature of violations and concerns raised from NRC inspection activities. However, increased management initiatives during the latter half of the SALP period were demonstrated in licensee actions observed by the NRC staff. These actions included clearer definition and delegation of responsibilities for fire protection program implementation, and initiation by the licensee of a comprehensive fire protection program reassessment. The results of this reassessment were forwarded to the Region V NRC office by the licensee's letter dated April 13, 1987. These licensee findings are still under review by the NRC staff.

In a meeting held with members of the licensee's management staff on January 21-23, 1987, the NRC expressed further concern over the issues identified by NRC inspection activities. Some of the NRC concerns related to these issues are further discussed in Section J, Licensing Activities, of this SALP report. Based on this meeting, the licensee's letter dated January 29, 1987 provided further licensee commitments regarding fire protection program implementation.

In the area of control of combustible materials, the licensee has aggressively pursued actions to improve overall housekeeping at the facility. The resident inspectors observed a significant improvement in this area during the latter portion of the SALP period.

One LER was submitted in the fire protection area during this assessment period. This involved the lack of an analysis for control room flooding due to sprinkler system actuation, and is still pending NRC followup. One previous LER, 84-31, reported numerous deficiencies in the fire protection program; most of

these deficiencies have been resolved by the licensee, but some are still outstanding.

Overall, the SALP Board recognized that significant problems were identified by the licensee and the NRC in the fire protection area, and that considerable licensee resources have been dedicated to their correction and resolution.

2. Conclusion

Performance assessment - category 2.

3. Board Recommendation

Past performance in this area has warranted increased management attention and involvement in all aspects of fire protection program implementation. Based on the licensee's self-reevaluation and enhanced understanding of the program requirements in the latter part of this assessment period, it became apparent that management attention, involvement and aggressive actions were initiated to correct and prevent recurrence of fire protection related problems. The Board recommends that this effort be sustained.

F. Emergency Preparedness

1. Analysis

Region V conducted a total of three emergency preparedness inspections during this appraisal period. Areas addressed during these routine inspections included changes to the emergency preparedness program, licensee audits, training, public information, emergency detection and classification, protective action decision making, notifications and communications, shift staffing and augmentation and followup on previous inspection findings. The licensee's 1986 annual emergency exercise was observed during this appraisal period. Additionally, revisions to the licensee's Emergency Plan (EP) and Emergency Plan Implementing Procedures (EPIPs) were reviewed. A total of 301 hours of direct inspection effort were expended in the area of emergency preparedness. No violations of NRC requirements were identified during this inspection effort.

The inspections during this appraisal period showed continued improvement in the level of effort devoted to management of the emergency preparedness program. Management attention has resulted in resolution of some long standing issues. Significant improvements were specifically noted in the area of notification. The system for notifying off-site agencies has been improved, an automatic dialer has been purchased to improve notification of off-shift personnel, improvements have been completed for notification of personnel in high noise

areas, and continued effort has been devoted to improving the licensee's off-site alert and notification system. Improvements were also noted in the area of emergency preparedness training. The licensee has developed a mechanism to assure that emergency response personnel have completed training, prior to being given emergency response duties. The licensee also completed a major job task analysis for emergency preparedness training. Evidence of training improvements were noted during the licensee's annual emergency exercise. Overall, the level of licensee performance showed improvement over the previous exercise.

In general, the licensee has been responsive to NRC initiatives. During the appraisal period, the licensee was requested by the NRC to respond, in writing, to deficiencies identified by the Federal Emergency Management Agency (FEMA) during the 1986 annual emergency exercise. The licensee's response to this request was timely and adequate. From a less formal standpoint, the inspection effort disclosed that the licensee was not flagging or tracking inspection findings other than open items. This could result in some NRC concerns being overlooked or not considered. There were no significant operational events relevant to the functional area of emergency preparedness. The staff assigned to the emergency preparedness program is adequate in numbers, and positions/responsibilities are defined.

2. Conclusion

Performance Assessment - Category 1. An improving trend was observed, with increased management involvement becoming apparent.

3. Board Recommendations

Licensee management is encouraged to maintain the level of support of the emergency preparedness program.

G. Security and Safeguards

1. Analysis

Regional based inspectors conducted a series of three inspections; two dealing with physical security and one with material control and accounting. The resident inspectors also monitored implementation of the security program, including compensatory measures, as part of their routine inspection activities. Areas inspected included the licensee's approved physical security plan, guard training and qualification plan, and fuel material control and accounting procedures. A total of 245 hours of inspection effort were expended in the area of physical security and safeguards.

With regard to management's involvement in assuring quality, corporate security management is involved in the implementation and review of the security program. Licensee management has implemented remedial actions related to compensatory measures and security training to correct deficiencies identified by those reviews and by the NRC in the course of its security inspections. Although the corrective actions identified appear to be appropriate, the major program upgrades underway (particularly in the area of training) will require continued management attention.

Technical resolution of security issues with respect to the implementation of compensatory security measures was generally sound and thorough. The guidance for the implementation of measures to compensate for security system failures and improved post orders to describe alarm station operations, both developed during the assessment period, can be expected to significantly enhance the licensee's program for applying compensatory measures to a wide variety of failure scenarios.

During the current assessment period, six information notices related to security were issued. The notices dealt with personnel access control at nuclear facilities; delayed access to safety-related areas and equipment during plant emergencies; underground pathways into protected and vital areas; the use of compensatory measures for prolonged periods; limiting vital area access authorizations; and the enclosure of vital equipment within vital areas. Inspector review of the licensee's records relative to their analysis of the information notices is continuing. The licensee's actions, as reviewed to date, were found to be appropriate. While the licensee has incorporated preliminary program modifications into their planning and assignment of security program priorities, those modifications have not been completed and warrant continued licensee attention.

The enforcement history for the period February 1, 1986 through May 31, 1987, includes two physical security inspections. The first, conducted to verify continued compliance with security plan requirements, represented a total inspection effort of 46 hours. The second physical security inspection represented 39 inspection hours of effort to review and evaluate the adequacy of the licensee's investigation of the events surrounding the reported failure on June 5, 1987, to provide positive access control during a dual computer failure.

The two security inspections identified 5 Severity IV violations and one Severity V violation in the areas of positive personnel access control, vehicle access control and reporting of security events. While major violations have not been identified, the violations dealing with lack of positive access control and reporting of security events represent repeat violations during the SALP period and have resulted in

additional management attention to NRC concerns and initiatives in these areas.

In addition, the resident inspectors provided continuing observations in the area of physical security operations. One material control and accounting inspection involving 33 hours was conducted during the assessment period with no violations or deviations identified.

During the current assessment period, fifty-two safeguards event reports (10 CFR 73.71(c)) related to security were issued. The events, attributable to causes under the licensee's control, involved the issuance and control of key cards, dual failures of security computers, the implementation of measures to compensate for disabled security equipment, unlocked vital area doors, and unauthorized vital area access. Inspector review of the licensee's records relative to their analysis of the event reports is continuing. For those event reports issued prior to September, 1986, the licensee's actions were found generally to be appropriate. However, the analysis of the security significance of certain events such as inadequate compensatory measures and personnel gaining access to vital areas without a check for proper access authorization had been marginal in the early part of the assessment period -- leading to failures to report as required per 10 CFR 73.71(c). While the licensee has incorporated preliminary program modifications into their planning and assignment of security program priorities, continued licensee attention appears warranted in these areas.

With respect to staffing, key positions are identified and responsibilities are generally well defined, although the initial investigation of the June 5, 1986 incident suffered from a perceived conflict of interest due to the close daily interaction of the investigator with those responsible for security operations. Expertise is usually available within the staff and the security force manning level has been increased to provide for a training squad to ease implementation of the upgraded security program.

Significant licensee management attention has been applied to identified weaknesses in the licensee's security training program. Both the types of courses offered, and the content and application of those courses is being expanded.

2. Conclusion

Performance assessment - Category 2, improving. While initially declining, the licensee's detailed internal reviews and corrective measures resulting therefrom are progressing and can be expected to effect further improvements in training and program operations.

3. Recommendation

Licensee management is encouraged to continue their augmented support of the station security program, particularly with respect to: (1) completion of the security training program upgrade; and (2) timely evaluation of the new procedures for the implementation of compensatory measures. The Board perceives a need for greater management involvement in the evaluation and exercise of the new compensatory measures procedure to assure that the final procedure and results achieved meet management's expectations. Corrective actions implemented as a result of past problems and NRC information notices should be reviewed to assure continued adequacy.

H. Outages

1. Analysis

During the SALP period, the licensee's outage efforts were inspected on a routine basis by the resident and regional inspection staff.

Major outages for annual refueling and maintenance occurred April 1 - June 4, 1986 and April 10 - June 22, 1987. Minor unscheduled outages occurred June 21-29, 1986; July 10-12, 1986; September 3-7, 1986 and March 22-25, 1987. A five day scheduled outage occurred from November 20-25, 1986. As a result of outage management's self-appraisal and overall assessment of maintenance activities, the major refueling outages have been well planned and have generally met the scheduled time for the outage. The April 1987 outage plan was aggressive reflecting the licensee's desire to accomplish a large amount of work activities in a short period of time. Preplanning for this refueling outage was evident with the mobilization of the temporary work force; for example, worker screening and site access training were scheduled prior to plant shutdown and were accomplished at the local craft labor center. Corporate and senior plant management were observed to frequently tour the facility during the scheduled outages.

Previous SALP board recommendations included management emphasis to ensure compliance with equipment control and plant cleanliness policies in controlled work areas such as the drywell. These recommendations were acted upon in an effective manner. An overall improvement in the plant appearance through increased attention to facility housekeeping was readily apparent. Equipment control, such as measuring and test equipment, has improved through procedure revisions and increased personnel awareness of management policy. Inspections have identified that tool control personnel are aware of the revised procedures and have demonstrated to the inspectors that the program is working. One LER was identified in this area which was the result of a defective procedure. No

violations were identified in the Outage area, although one condition was reported that dealt with a change in plant mode to refueling (Condition 5) without performing all required surveillances.

During the 1987 outage, unexpected difficulties with the removal and modification of the "A" reactor recirculation pump internals presented an opportunity to evaluate the ability of the staff to cope with significant problems. Throughout the process of solving this particular condition, a sound technical and conservative approach was taken, and only a modest loss of schedule was experienced. However, during plant startup, it was identified that the wrong gasket was installed on the "A" recirculation pump. This resulted in a five day shutdown to facilitate replacement. In addition, deficiencies in other maintenance activities performed during the outage were identified. Examples of these are: misalignment and gear problems with a transverse incore probe indexer, major steam leak on the "B" low pressure turbine stop valve due to improper torquing, and operational problems with the main steam relief valves and system relief valves in general.

Reactor scrams and events occurring during the reactor startup following the R-2 outage appear to indicate that the licensee may not have been totally effective in controlling work and modifications performed by contractors and/or Maintenance during the outage.

2. Conclusion

Performance Assessment - Category 2.

3. Board Recommendations

Licensee management is encouraged to focus additional attention on evaluating and improving the process for assessment of the state of plant readiness for return to operation. In addition, more attention to detail should be given to the performance of outage activities.

I. Quality Assurance and Administrative Controls Affecting Quality

1. Analysis

During this SALP period the resident inspectors and regional inspection staff reviewed quality assurance and administrative activities during routine inspections. In addition, a team inspection performed in June 1986 included an assessment of quality assurance and general administrative and management elements.

There were four violations in this area, the most significant of which were the failure to have established a defined QC inspection program for preventive maintenance and the failure to take prompt corrective action. Two Part 21 reports were issued pertaining to construction engineering specifications for cable/conduit weight and sizing of underground and insulated cables. These conditions were subsequently dispositioned as acceptable, based on engineering and load test analyses.

The licensee was quick to respond to the need for a defined QC inspection program for preventive maintenance and a Quality Assurance enhancement program. The QA/QC staff level was increased by eight, six new positions and two that had been carried over from 1985. The QA organization's technical competence is being upgraded by participation in hot license systems courses, technical training seminars, and in-house training on areas pertaining to plant operations and maintenance. The QA/QC department now has on its staff two Senior Reactor Operators and one engineer with commercial experience. Technical training for QC inspectors is being enhanced by participation in the development of an INPO accredited QC Inspection Training Program being sponsored regionally by Southern California Edison Co.

Mechanical and electrical maintenance started round-the-clock coverage following the R-2 outage. In support of this, QC is providing full time coverage five days a week and day shift coverage on the weekends. With the current staffing level, this could substantially reduce QC involvement for the bulk of maintenance activities.

An enhanced QA surveillance program has been implemented to include routine observation of maintenance and operations with immediate feedback to the audited performers and/or supervision. Plant management initiatives and improvement programs are being audited for effectiveness to provide for timely course correction. Recent inspections indicate that QA has been making significant findings, examples being: possible improper functional testing of safety-related relays, code violations in the installation of control rod drive mechanisms, and deficiencies in the cold weather preparation program. In addition, there has been a decided improvement in communications between QA and Plant Management regarding response and corrective action of QA surveillance identified deficiencies.

QC has established a program of hardware inspections to verify compliance with installation procedures and design requirements. A baseline corrective and preventive maintenance program has been developed for critical components. A maintenance history file is being developed to better define the inspection attributes to be applied to corrective maintenance. A sampling program is being developed for

Management visibility and involvement in plant activities has been very evident during the SALP period of review. The Deputy Managing Director makes frequent tours of the facility inside the radiological controlled area, as do members of Plant Management. Members of the Corporate Nuclear Safety Review Board (CNSRB) frequently attend Plant Operations Committee meetings and have been judicious in carrying out their responsibilities. The objectiveness and technical expertise of the CNSRB has been enhanced with the addition of several new members from outside the Supply System organization. They have demonstrated a clear understanding of issues and their recommendations appear to be technically sound and thorough.

2. Conclusion

Performance Assessment - Category 1. An improving trend was noted.

3. Board Recommendations

Continue with the implementation of planned management and quality assurance/quality control improvement programs. In addition, QC staffing should be evaluated in light of the increased off-shift maintenance activities.

J. Licensing Activities

1. Analysis

Participation by WNP-2 management in the licensing process was noticeably improved during this SALP period. During this period, twenty-three licensing actions were completed and none was required nor requested on an exigent or emergency basis. This performance compares with thirteen Technical Specification amendments granted during the previous SALP rating period, seven of which were requested on an expedited basis. This performance reflects a substantially improved focus of attention by WNP-2 management. Similarly, the quality of the submittals has shown marked improvement.

WNP-2 undertook two fuel reloads during this rating period. The first was accomplished during the spring of 1986 and was managed and executed in an exemplary manner. The second occurred at the end of the current SALP period and startup was delayed due to problems encountered with electrical and mechanical equipment. The plant availability during the intervening period was high, indicating an apparent high degree of management involvement in the operation of the plant. The continuing problems with both recirculating pumps over a two year period, however, is a cause for some concern.

The NRR staff considers Supply System management generally to reflect good control, significant involvement, and consistent

prior planning and assignment of priorities. It appears that further management attention towards resolution of fire protection issues is warranted.

The Supply System's approach to the resolution of technical issues and responsiveness to NRC initiatives has generally been sound and viable. The NRR staff feels that the Supply System demonstrated a very good understanding of the technical aspects and functioning of their plant and a sensitivity to the safety issues which, for the most part, they addressed conscientiously and in compliance with the regulations. The overall performance of the Supply System is regarded as satisfactory.

The reactor scram which occurred on March 22, 1987, and the subsequent recovery difficulties (LER 87-02) were of interest to NRR management. During recovery, the reactor water level reached the elevation of the main steam line inlet three times over nearly a three hour period following the scram. This was the second steam line flooding event during the SALP interval (see also LER 86-25). NRR management was briefed on the event on May 12, and the ACRS was informed of the event on June 5, 1987. The NRC staff also noted that the licensee could have been more complete in the reporting of the event under 10 CFR 50.72. The problems experienced during recovery from the initial scram were not reported to the Operations Center and were therefore not known to those screening events for NRC followup. It is understood that licensee management has issued instructions calling for more complete reporting of operational events.

The Supply System's licensing staff, in its working relationship with the engineering and operations staff, has a sound technical understanding of their system and its performance characteristics. Appropriate personnel are invariably in attendance at meetings and telephone conferences with the NRC staff so that conferences are generally short and productive.

On the other hand, NRR has recently become concerned about the licensee staff's implementation of the procedures for making changes to the licensing basis documents (e.g., FSAR and Technical Specifications). In particular, there seems to be a lack of appreciation of the need for timely filing of amendments to the FSAR in safety areas. An example is the case of correcting Amendment 37 concerning power being removed from valves RHR-V-8 and RHR-V-9 after the Supply System had decided not to operate in that mode. Apparently, there was no plan to amend this unreviewed safety area until the annual FSAR update. Further, the licensee's staff discussed changes to the Technical Specifications bases without obtaining NRR staff concurrence. It has been necessary to advise the licensee that, since the approved technical specifications reflect the "bases," such changes require staff concurrence.

With respect to the management control of license amendment requests, the Supply System has shown remarkable improvement by the elimination of emergency technical specification changes during this SALP period. This improvement was encouraged in the previous SALP report and the licensee appears to have been responsive. Further encouragement may be in order but recognition and commendation for significant improvement in this area is appropriate.

2. Conclusions

Performance Assessment - Category 2, with an improving trend.

3. Board Recommendation

Additional management attention should be directed towards resolution of fire protection issues. With respect to the Supply System's use of the appropriate procedures for accomplishing modifications to their licensing basis documents, it is recommended that the Supply System take measures to ensure that their licensing staff and Operations management achieve a mutual understanding of the requirements for timely and accurate filing of FSAR amendments and for modifying other licensing basis documents according to the provisions of 10 CFR Part 50.

K. Training and Qualification Effectiveness

1. Analysis

The evaluation of the functional area of Training and Qualification Effectiveness consisted of observations from resident, Region, and team inspectors. Management involvement in obtaining accreditation with INPO was apparent. The licensed and non-licensed operator training programs have been fully accredited, and an NRC assessment of the accreditation program as it applies to WNP-2 found it to be fully effective. Self evaluation reports for the remaining training categories were submitted to INPO on time, and INPO accreditation assessments are scheduled for August 1987. The licensee has joined in an effort, hosted by Southern California Edison, to implement a standardized QC training program for all Region V facilities. In addition, instructor performance is routinely evaluated by management, and individual training records of plant staff are well maintained.

The licensee has provided good training facilities, including a plant-specific simulator and modern classrooms with audio/video visual aid equipment. However, during requalification examinations, the examiners noted that the simulator facility's performance was marginally acceptable. Problems were identified to the management and corrective actions were reviewed on subsequent examinations. The Supply System

incorporated in their operating plan, permanent financial resources specifically dedicated to simulator improvement and maintenance, and has committed to show improvement in their simulation program over the next few examination cycles.

The overall evaluation of the facility's licensing requalification training program was found to be satisfactory, with notable improvements in the simulator facility. The Chief Examiner noted that the facility had implemented an aggressive Simulator Certification Plan, based on ANSI and EPRI criteria. Also, the facility has in place a system of requalification training on recent LERs that affect safe plant operation.

No violations or LERs were issued in this functional area, indicative of the licensee's thorough approach and responsiveness to NRC initiatives. Staffing generally exceeded requirements.

During this evaluation period, one requalification and three replacement examinations were administered at WNP-2. The replacement examinations which were given indicated a pass rate consistently higher than the average national pass rates for initial operator candidates and requalifications. During the evaluation period no generic weaknesses were observed in the candidates' performance. Both of the above results are consistent with this facility's previous performance. The resident inspector attended simulator training and verified that the program addresses the differences between the simulator and the control room layout. The examiner staff has also observed that the facility simulator operations have continued to improve and that the facility training material has been revised and improved.

2. Conclusion

Performance assessment - Category 1.

3. Board Recommendations

Licensee management should continue efforts to achieve INPO accreditation of all remaining training programs and efforts should be continued on the simulator upgrade program.

V. SUPPORTING DATA AND SUMMARIES

A. Licensee Activities

WNP-2 continued full power operation during this SALP period. Cycle 1 refueling was performed March 15 through June 9, 1986. Cycle 2 refueling began on April 11, 1987 and was nearing completion at the close of this SALP period.

During the Cycle 1 refueling outage, the Supply System replaced the "B" reactor recirculating water pump wear ring assembly due to vibration experienced during the operating cycle. The "A" recirculation pump was not inspected during the outage since there were no increased vibration levels indicated and there was no reason to believe that the condition with the "B" pump could be generic. (The "B" pump was secured in June, 1985 when the increased vibration was detected and a Technical Specification change was obtained that allowed single recirculation loop operation up to 72% reactor power. The plant was operated in single loop using the "A" recirculating water pump until the plant was shutdown for the Cycle 1 refueling.) On November 7, 1986, the Supply System identified increased vibration from the "A" reactor recirculating water pump. On November 10, 1986, the plant was shifted to single loop operation, this time using the "B" recirculating water pump. The plant was operated in this mode until it was shutdown for the Cycle 2 refueling. During this refueling, the "A" pump underwent repairs similar to those performed on the "B" pump since it was determined that the failure mechanism was the same. Further modifications were also made to the "B" pump.

On September 3, 1986, the reactor tripped from 100% power on low reactor water level. The initiating event was a "B" reactor feedwater pump trip due to a failure in the overspeed control circuitry. At that time, the reactor recirculation flow control valves should have automatically closed to the minimum flow position. However, the "B" valve closed to the 65% open position reducing reactor power only to 70%. As a result, a steam flow/feed flow mismatch occurred which resulted in the low reactor water level. The problem with the "B" recirculation flow control valve was determined to be excessive play in the valve position actuator feedback linkage. The Supply System determined that the excessive play was due to bushing wear which resulted in too large an error between the valve's demand and actual positions. Therefore, the valve locked up and would not operate fully. The worn bushing was replaced and the plant was restarted on September 6, 1986.

On November 20, 1986, a Technical Specification-required plant shutdown was commenced from 71% power because the Supply System declared the acoustic monitor for safety relief valve 5C inoperable. The cause for this action was the lack of environmental qualification for a connector, located in the drywell, that is associated with the acoustic monitor. The licensee was unable to qualify the connector. Therefore, a five day outage took place in which the licensee replaced the connector and performed maintenance on additional equipment. The plant was restarted on November 25, 1986.

On February 20, 1987, the plant was shut down from 71% power due to decreasing lubrication oil pressure to the main turbine bearings. The problem was determined to be a broken check valve located in the bearing oil supply header inside the lubricating oil reservoir. The check valve was repaired and the plant was returned to service on February 25, 1987.

On March 22, 1987, the reactor was manually tripped from 71% power by the control room operator. This was done since the operator anticipated an automatic reactor trip as a result of a loss of both main feedwater pumps which tripped on low suction pressure. The reactor water level decreased to level 2 which resulted in both engineered safety features and emergency core cooling system actuations. In addition, the containment was isolated and the main steam isolation valves (MSIVs) tripped shut. These safety features functioned as designed. The cause of the low suction pressure to the feedwater pumps was a mechanical failure of a 1/4 amp fuse in the feedwater control system. This caused the control system to call for maximum feedwater flow. The main feedwater pumps increased speed rapidly and tripped on low suction pressure, since only two of the three condensate booster pumps were in service. The reactor was overfilled by the condensate booster pumps (due to operator failure to close the feedwater block valves), and water was introduced into the main steam lines. During the event, two safety relief valves (SRVs) were operated with high reactor water level conditions and water was passed through one of the valves to the suppression pool. As a result of this event, the licensee performed an evaluation of the steam piping and determined that there was no damage to the piping or the SRV. The 1/4 amp fuse was replaced with a 1 amp fuse (based upon vendor recommendation) to prevent a fuse failure from small current spikes in the control system. In addition, the Supply System identified some procedural weaknesses that contributed to the high reactor water level and is in the process of considering some design changes to prevent recurrence of this event. The plant was restarted three days later on March 25, 1987.

B. Inspection Activities

Approximately 6300 on-site inspection hours were spent in performing a total of 47 inspections by resident, region-based, headquarters, and contract personnel. Inspection activity in each of the functional areas is summarized in Table 1.

C. Investigations and Allegations Review

During this SALP period, only one investigation was opened by the Office of Investigation. The investigation is related to an allegation of intentional violation of the approved fire protection program. A Region V inspection confirmed deficiencies in that area. This item is still under investigation and enforcement action is pending.

D. Escalated Enforcement Actions

No escalated enforcement actions were issued during this SALP period. One potential escalated enforcement action, related to fire protection, is pending.

E. Management Conferences Held

- April 15, 1986 - Enforcement conference on apparent Appendix R violations.
- August 28, 1986 - Enforcement conference on violations related to (1) equipment qualifications; (2) team inspection findings, particularly in the QA/QC area; (3) control of plant housekeeping during open-system maintenance; and (4) control of combustible materials. A management meeting to discuss the results of the 1985-86 SALP assessment was also held on that date.
- March 20, 1987 - A management meeting was held between NRR, Region V, and members of the Supply System staff at the site. The purpose of the meeting was to discuss recent operating events, the status of the SALP improvement program, the status of corrective actions in response to the August 29, 1986 enforcement conference, and issues of current interest.

F. Confirmation of Action Letters

None.

G. Others

None.

H. Review of Licensee Event Reports and 10 CFR and Part 21 Reports

A total of 54 Licensee Event Reports were submitted during this period and are summarized in Table 3. In addition, the Office for the Evaluation of Operational Data (AEOD) evaluated the content and quality of a representative sample of the LERs submitted during the SALP period, using a refinement of the basic methodology presented in NUREG-1022, Supplement No. 2. This evaluation assigned WNP-2 an overall average LER score of 8.8 of a possible 10 points, ranking it well above the average of the nuclear units evaluated to date using this methodology.

Several minor weaknesses were identified by AEOD in their review of LERs. These areas requiring improvement in reporting are: (1) the date and time of occurrence, (2) the manufacturer and model number of defective parts, and (3) the time estimate of unavailability of equipment.

The quality of LER reporting was noted by AEOD to have increased since the last SALP period, as indicated by the evaluation scores. Overall, compared to the reports from other facilities, the LERs submitted by the licensee for the assessment period were judged to be of very high quality. A copy of the complete AEOD report will be provided to the licensee for review and input into the LER process.

I. Licensing Activities

1. NRR Meetings with the Licensee

Two significant meetings were convened in which both NRR and Supply System personnel participated. Region V representatives participated in both.

- o Project Directorate 3 of the Division of BWR Licensing (previous organization) held a one-day meeting in Bethesda with representatives of all utilities and all Project Managers associated with the Directorate. The meeting was held on September 9, 1986 and its purpose was to provide an opportunity for the utilities and the NRC to share concerns and discuss difficulties so as to improve the licensing climate within the Directorate.
- o Fire Protection - On January 14, 1987 a meeting was held at the Supply System's Headquarters in Richland as a preliminary information exchange prior to a combined inspection of the WNP-2 facility by Region V and NRR. The meeting was attended by many of the responsible managers from Region V, NRR and the Supply System. The subsequent inspections were intended to clarify the many fire protection issues that had been identified by Region V inspectors and NRR reviewers on numerous inspections and visits during the proceeding months. The meeting and subsequent inspections accomplished much of their intended purpose but left several fire protection issues open.

2. Commission Meetings

None

3. NRC Plant Visits and Meetings

Seven visits to the WNP-2 facility were made by NRR personnel during this SALP period. The dates of the visits were as follows:

March 6 - 7, 1986*
 March 20 - 21, 1986
 July 16 - 24, 1986
 August 12 - 13, 1986*
 January 12 - 16, 1987*
 March 17 - 20, 1987
 May 19 - 22, 1987

Several of these were group visits and the three marked (*) were oriented toward the significant licensing issue of fire protection.

4. Scheduler Extensions

Two scheduler exemptions were granted by license amendment during this SALP period. Amendment 23, dated May 5, 1986, extended the required schedule for implementing the upgrading of neutron flux measurement instrumentation to comply with Regulatory Guide 1.97 requirements. The scheduler exemption extended the required implementation from restart following the first refueling outage to restart following the second refueling outage.

Amendment 25, dated May 23, 1986, extended the schedule for upgrading the Suppression Pool Level instrumentation in a similar manner. The licensee continued to work on the required instrumentation as a parallel effort and subsequently advised the NRC staff that the scheduler extension was not needed.

5. Reliefs Granted

The following table shows the status of relief requests that were received or disposed of during the current SALP period:

<u>Date of Request</u>	<u>Relief Request</u>	<u>Disposition</u>
Feb 28, 85	PSI Program Plan	granted, July 31, 86
May 29, 85	IST Program Plan 7 requests	1 withdrawn, July 22, 86 5 granted, Mar 27, 87 1 denied, Mar 27, 87
Jun 14, 85	ASME Section XI	denied, Nov 6, 86

6. Exemptions Granted

Two exemptions to the regulations were granted during this SALP period; both were exemptions from the requirements of Appendix J.

7. Emergency Actions Granted

None

8. Licenses and License Amendments Issued

A total of 22 license amendments were issued. None of these required processing under exigent or emergency conditions.

9. Orders Issued

None

10. Issues Pending

At the end of this SALP period, there were 33 Licensing Actions under review and in progress. This number included 5 Multiplant Actions.

TABLE 1

INSPECTION ACTIVITIES AND ENFORCEMENT SUMMARY (2/1/86 - 5/31/87)

<u>Functional Area</u>	<u>Inspections Conducted</u> <u>Inspection*</u> <u>Hours</u>	<u>Percent</u> <u>of Effort</u>	<u>Enforcement Items</u> <u>Severity Level **</u>				
			<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>
A. Plant Operations	1673	26.42					
B. Radiological Controls	642	10.14				10	1
C. Maintenance	577	9.11				5	1
D. Surveillance	294	4.64				2	
E. Fire Protection	557	8.79				6	
F. Emergency Preparedness	301	4.75					
G. Security and Safeguards	245	3.87				5	1
H. Outages	415	3.87					
I. Quality Programs and Administrative Controls	1401	22.12				3	1
J. Licensing Activities	103	1.63					
K. Training and Qualification Effectiveness	125	1.97					
TOTAL	<u>6332</u>	<u>100.00</u>	—	—	—	<u>31</u>	<u>4</u>

* Allocations of inspection hours to each functional area are approximations based upon NRC form 766 data. These numbers do not include inspection hours by NRC contract personnel.

** Severity levels are in accordance with NRC Enforcement Policy (10 CFR Part 2, Appendix C). No deviations were identified during this SALP period.

TABLE 2
ENFORCEMENT ACTIVITY

<u>Inspection Report No.</u>	<u>Subject</u>	<u>Severity Level</u>	<u>FUNCTIONAL AREA</u>
86-05	Safe shutdown method different from license condition (ADS/LPCI instead of RCIC/HPCS.	4	E
86-05	Failure to meet App. R III.G.2 criteria.	4	E
86-06	Unanalyzed change to safety related system (nitrogen bottle secured to RHR seal discharge line).	5	C
86-11	Failure to reverify prerequisites and record instruments during retest of battery.	4	D
86-11	Control of M&TE not implemented according to procedure.	4	D
86-11	Failure to take prompt and effective corrective action.	4	I
86-11	Work, that was not allowed by procedure, was performed on an RHR valve.	4	C
86-11	Failure to have established a defined program for QC inspections of preventive maintenance	4	I
86-11	Failure to perform bore measurements on air start motors.	4	C
86-11	Housekeeping - failure to remove foreign material from work areas after work is completed.	4	C
86-19	Failure to maintain positive access control to vital areas - 12 examples of undetected access in May 1986.	4	G
86-19	Failure to report undetected access.	4	G
86-21	Failure to use controls to prevent entry of foreign material into the RHR system.	4	C
86-21	Failure to use good work practices for contamination control.	4	B

TABLE 2 - ENFORCEMENT ITEMS (Cont'd)

<u>Inspection Report No.</u>	<u>Subject</u>	<u>Severity Level</u>	<u>FUNCTIONAL AREA</u>
86-22	Fire protection discrepancies in control of flammable liquids.	4	E
86-22	Fire protection discrepancies in control of combustible materials.	4	E
86-22	Control of fire doors.	4	E
86-23	Failure to process controlled vacuum cleaners in accordance with the procedures.	4	B
86-25	Failure to follow procedures (multiple examples).	4	E
86-28	Failure to calibrate radiation control monitors as required by procedure.	4	B
86-28	Failure to properly post and control high radiation areas.	4	B
86-28	Failure to make survey as may be necessary to comply with all selections of 10 CFR.	4	B
86-28	Failure to adhere to procedures established for calibration of portable and air monitoring equipment.	4	B
86-30	Failure to report major loss of security per 10 CFR.	4	G
86-30	Failure to provide positive access control (doors blocked open).	4	G
86-30	Failure to provide positive access control (doors opened without proper compensation).	4	G
86-36	Failure to document the factors used to demonstrate the qualifications of an NSAG member.	5	I
87-02	Failure to install qualified fire barriers to protect safe shutdown trains.	*	E
87-08	Failure to provide minimum illumination as required by physical security plan.	5	G

* NOV pending on fire protection issues identified in inspection

TABLE 2 - ENFORCEMENT ITEMS (Cont'd)

<u>Inspection Report No.</u>	<u>Subject</u>	<u>Severity Level</u>	<u>FUNCTIONAL AREA</u>
87-09	Failure to survey equipment upon removal from the spent fuel pit.	4	B
87-09	Failure to follow procedure by securing a gas bottle to a safety related cable tray support.	4	C
87-09	Failure to perform a weekly source check on a continuous air monitor.	4	B
87-13	Failure to follow procedure by filling out conditional release forms prior to dispositioning the applicable NCRs.	4	I
87-14	Failure to conspicuously post a high radiation area.	4	B
87-14	Failure to conspicuously post a radiation area.	4	B
87-14	Failure to record clothing contamination in the health physics log book.	5	B

TABLE 3
SYNOPSIS OF LICENSEE EVENT REPORTS (LERs)

<u>Functional Area</u>	<u>SALP Cause Code*</u>					<u>X</u>	<u>Totals</u>
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>		
A. Plant Operations		10	2	4	7		23
B. Radiological Controls	1			1			2
C. Maintenance	6	1		1	1		9
D. Surveillance	8	1		8	1		18
E. Fire Protection		1					1
F. Emergency Prep.							
G. Security							
H. Outages				1			1
I. Quality Programs/ Admin.							
J. Licensing Activities							
K. Training/ Qualification Effectiveness							
L. Others		2					2
	<u>15</u>	<u>15</u>	<u>2</u>	<u>15</u>	<u>9</u>	<u>—</u>	<u>56</u>
Totals	15	15	2	15	9		56

* Cause Code

A - Personnel Error

B - Design, Manufacturing or Installation Error

C - External Cause

D - Defective Procedures

E - Component Failure

X - Other

The above data are based upon LERs 86-01 through 87-12.