ENCLOSURE

INITIAL SALP REPORT

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

REPORT NOS. 50-277/89-99
50-278/89-99

PHILADELPHIA ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION

UNITS 2 AND 3

ASSESSMENT PERIOD: JULY 1, 1989 - MAY 31, 1990

BOARD MEETING DATE: July 16, 1990

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I. INTRODUCTION

The Systematic Assessment of Licensee Performance (SALP) is an integrated Nuclear Regulatory Commission (NRC) staff effort to collect observations and data and to periodically evaluate licensee performance on the basis of this information. The SALP process 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 feedback to the licensee's management to improve the quality and safety of plant operations.

An NRC SALP Board, composed of the staff members listed below, met on July 16, 1990 to review the collection of performance observations and data and to assess the licensee's performance at the Peach Bottom Atomic Power Station. This assessment was conducted in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance."

This report is the NRC's assessment of the licensee's safety performance at the Peach Bottom Atomic Power Station for the period July 1, 1989 through May 31, 1990.

The SALP Board for the Peach Bottom Atomic Power Station assessment consisted of the following individuals:

Chairman:
J. Wiggins, Deputy Director, Division of Reactor Projects (DRP)

Members:
R. Blough, Chief, Projects Branch 2, DRP
L. Doerflein, Chief, Reactor Projects Section 2B, DRP
G. Suh, Project Manager, NRR
J. Lyash, Senior Resident Inspector, DRP
W. Butler, Director, Project Directorate I-2, NRR
W. Hodges, Director, Division of Reactor Safety, DRS
R. Cooper, Deputy Director, Division of Radiation Safety and Safeguards, DRSS

Others in Attendance:
S. Collins, Director, DRP, Region IV
J. Durr, Chief, Engineering, DRS
R. Urban, Resident Inspector, Peach Bottom
L. Myers, Resident Inspector, Peach Bottom
S. Sherbini, Radiation Specialist, DRSS
C. Conklin, Senior Emergency Preparedness Specialist, DRSS
T. Dexter, Physical Security Inspector, DRSS
J. Kottan, Laboratory Specialist, DRSS

II SUMMARY OF RESULTS

II.A Overview

Licensee management continued to be strongly involved in monitoring routine activities, encouraging progress in enhancement of programs and promoting effective self-assessment. These efforts have been successful in maintaining performance at the levels noted in the previous SALP and improving performance in some areas. The licensee's organization and several programs were in a state of transition during most of the period. The focus has shifted from preparation and startup of the units to conduct of more routine operations. The licensee has therefore been faced with additional challenges to complete all activities associated with safe operation of both units, while maintaining the improved performance standards instituted during the previous extended outage. Along with this transition the pace of improvement and achievement of licensee goals has slowed in many areas. Licensee activities which continue to receive high levels of management attention have been clearly successful. Problems with performance of routine activities, however, indicate that the approach encouraged by management hasn t been accepted by all levels of the plant staff. While progress is still being made, licensee management attention is needed to ensure that plans for long-term improvement aren't affected due to relaxation following the successful power ascension program and return of both units to power.

Overall the licensee has strengthened performance at the facility. Continuing improvement was noted in the Security and Emergency Preparedness Functional Areas. In contrast the licensee wasn't effective in correcting problems identified in the radiological controls and surveillance testing programs. Progress did continue in the areas of operations and engineering, but was slower than projected by the licensee.

In summary, during this assessment period the licensee successfully implemented the restart and power ascension programs for both units. A solid foundation of self-assessment programs and a management philosophy of safety-conscious operations have been established. Licensee progress has been positive, but in many cases it is still too early to assess the long-term effectiveness of these improvements.

II.B Facility Performance Analysis Summary

Functional Area	Rating, Trend Last Period	Rating, Trend This Period
Plant Operations	2, Improving	2
Radiological Controls	2	2
Maintenance/Surveillance	2	2
Emergency Preparedness	1	1
Security and Safeguards	2, Improving	1
Engineering/Technical Support	2	2
Safety Assessment/ Quality Verification	2	2

Previous Assessment Period: August 1, 1988 through June 30, 1989

Present Assessment Period: July 1, 1989 through May 31, 1990

II.C Plant Trips and Unplanned Shutdowns (Includes only scrams while critical)

Unit 2

	Date	Power	Root Cause	Functional Area
1.	7/21/89	79%	Personnel error during trouble-shooting	Not Applicable

An automatic reactor scram on main steam isolation valve (MSIV) closure occurred when troubleshooting activities in an electro-hydraulic control cabinet caused a false indication of high reactor pressure. Turbine bypass valves opened reducing reactor pressure to 850 psig. A Group I isolation and MSIV closure resulted. The troubleshooting was an acknowledged high risk activity.

	Date	Power	Root Cause	Functional Area
2.	10/5/89	100%	Equipment failure, vendor manufacturing error	Not Applicable

An automatic scram occurred when an outboard MSIV closed during surveillance testing, causing a pressure spike and a high flux reactor scram. An unsuspected failure of the DC solenoid in combination with deenergizing the AC solenoid during the test caused the closure of the MSIV.

3.	11/26/89	100%	Equipment failure, design weakness	Not Applicable

An unplanned shutdown was made to repair an unisolable steam leak outside containment, emanating from the RCIC injection check valve hinge pin packing. Leakage was assumed to be in excess of allowable. A permanent design change has been developed and scheduled.

4.	12/20/89	100%	Personnel error during surveillance testing	Maintenance/ Surveillance

An automatic scram occurred when a second APRM was inadvertently removed from the "operating mode" by a technician during performance of a routine test, completing the logic needed to initiate a scram.

5.	1/27/90	30%	Equipment failure, design weakness contributing	Engineering and Technical Support

An unplanned shutdown was made to repair an unisolable leak outside containment on a "B" reactor feedwater pump discharge flow instrument line. The leak was caused by a cracked weld. A lack of adequate support for the piping was a contributor.

6.	4/21/90	21%	Personnel error, procedure weaknesses and equipment failure contributing	Operations

An unplanned shutdown was made to inspect main turbine bearings after high main generator exciter vibration was experienced, and indication of damage to the bearings was noted.

Unit 3

	Date	Power	Root Cause	Functional Area
1.	1/28/90	100%	Random equipment failure	Not Applicable

A fast power reduction and manual reactor scram were initiated when an electro-hydraulic control system fluid leak developed. The leak was caused by a failed sealing "O" ring. While no clear root cause was identified, lack of procedure guidance for installation and bolt torques were potential contributors.

2.	3/6/90	35%	Equipment failure complicated by inadequate surveillance procedures	Engineering/ Technical Support

An automatic scram occurred when the main turbine tripped at a reactor power of 35% due to the loss of main generator stator cooling. Improper calibration of the generator load runback circuit resulted in failure of the circuit to function as expected upon loss of stator cooling, causing the turbine trip and reactor scram.

III PERFORMANCE ANALYSIS

III.A Plant Operations

III.A.1 Analysis

Plant Operations was rated as a Category 2 with an improving trend in the previous assessment period. Management involvement in activities, Shift Manager leadership, and licensed operator performance were noted improvements. Procedure adherence by licensed operators was excellent, but procedure adherence by non-licensed operators was weak.

During the current SALP period the NRC continued to devote significant inspection resources to this area. Special Restart Safety Inspections were performed to review the Unit 2 and 3 power ascension programs. These included periods of around-the-clock control room inspection coverage.

Station management was clearly involved in daily plant activities and communicated the philosophy that attention to detail, nuclear safety and quality are paramount. Management oversight was visible through presence in the control room and at planning and technical meetings. This was also evident during Unit 2 restart activities at the beginning of the period, which were well managed. The Unit 3 restart program wasn't as successfully coordinated. Some avoidable operational events occurred. A high pressure reactor scram signal during the vessel hydrostatic test, several safety system actuations and multiple control rod misposition occurrences are examples. Contributing were factors such as the high level of activity in the control room and lack of attention to detail. Licensee self-assessment efforts also identified these factors. Management corrective action in response to these events was thorough. Control room activity was reduced by establishing unit coordinator positions and staffing them with licensed operators. The coordinators effectively integrated surveillance test and maintenance activities.

Operations line management demonstrated effective command and control of activities. Shift Manager leadership continued to be a strength, especially during control room staff response to plant transients. To improve communication and coordination between groups, the Shift Manager chaired the daily plant planning meeting. This helped focus attention on operational needs.

Licensed operators appeared well trained and professional in conduct of activities. The use, knowledge and adherence to procedures during significant or high risk evolutions continued to be a strength. Procedure adherence by non-licensed operators, however, didn't reflect careful attention to detail, especially in the use of system check off and locked valve lists.

Operator attention to detail and adherence to procedures in performance of repetitive or routine activities exhibited problems. Weaknesses were noted in the thoroughness of periodic panel walkdowns by the operators. For example, on one occasion a valve misalignment affecting emergency service water system operability, identifiable from the main control board, went undetected for four operating shifts. Additional problems with effective equipment status tracking were noted. Multiple control rod misposition events during the Unit 3 startup reflected inattention. On several occasions ineffective communications within the control room, or between the control room operator and personnel in the plant contributed to events. The consistency of shift turnover, walkdowns and equipment status tracking was improved during the later portion of the period by formalizing the turnover process via an Operations Management Manual procedure and by creation of plant status lists.

Some weaknesses were identified with the licensee's implementation of the program for control and restoration of equipment removed from service for performance of maintenance. While most return-to-service evolutions were appropriately handled, a number of significant evolutions weren't. Removal of safety tags, realignment of equipment and independent verification of the restoration weren't consistently completed in a manner that would ensure high confidence of the as-left configuration. Near the end of the period, in response to several NRC concerns, the licensee initiated a review of the process and its implementation.

The licensee maintained a substantial operations support staff to assist with procedure upgrade and revision, problem resolution and event follow-up. Investigations of operating events performed by the staff were generally thorough. But a large backlog of events existed through most of the period, preventing timely investigation in some cases. The Shift Technical Advisors continued to contribute positively to shift performance, providing effective analysis and recommendations during transients and in response to equipment problems.

On-shift operations personnel exhibited a willingness to critically examine performance, and a conservative approach to safety and problem identification. The integrated response of the staff to plant transients and scrams was commendable. There were several significant plant transients during the period which challenged the operators. In each case the control room staff responded as a team to resolve the problems, made decisions which placed the plant in a stable condition and reached appropriate conclusions regarding reportability and emergency classification.

Overall licensed operator staffing remained good throughout the period. The licensee maintained 6 shift crews, with one extra senior reactor operator (SRO) per crew. Recognizing the benefits of having operations experience in positions throughout the organization, the licensee allowed three Shift Managers to accept off-shift positions.

While licensee efforts are clearly continuing, progress has been slower than expected in achieving staffing and career path goals that constitute a significant factor in the long-term program for maintaining a positive operating environment. The goal of increasing reactor operator (RO) staffing from 3 to 4 per crew hasn't been reached, affecting plans to rotate long-time Shift Supervisors into staff positions. The slowed transition may affect operator morale and impact the climate for improvement. However, near the end of the SALP period one long-time Shift Supervisor was selected for a position in the Quality Assurance organization. A licensee supported college degree program for operators, which had been under development for some time, was finalized and candidate selection was initiated near the end of the period. Ongoing replacement operator training includes five SRO and eight RO candidates scheduled for examination in September, 1990.

During the assessment period the NRC evaluated the licensee's operator requalification program. The program was found to be adequate and all operators who were examined by the NRC passed. Two program concerns were identified. The licensee exceeded specified time limits for administering the written and operating demonstration requalification examinations, and licensed operators who had previously failed the licensee's requalification examinations were allowed to perform licensed duties prior to remediation and retesting. The licensee took prompt action to resolve these concerns.

In summary, the NRC assessment during the previous SALP reflected only 2 months of power operation. The current period included assessment of a much longer period of power operation, although a large portion was part of the licensee's power ascension program. The philosophy consistently reinforced by management and largely accepted by the staff was one of a careful, thoughtful and safety conscious approach. Licensed operators responded well to challenging plant transients and displayed a sound knowledge of plant design and procedures. Lapses in personnel attention to detail were noted, particularly during routine activities. Licensee programs to ensure that proper equipment status is established and periodically verified weren't wholly successful, and resulted in several problems during the period. While licensee efforts to improve operator staffing and career paths continued, progress was slow and may affect the climate for improvement in the operations organization.

III.A.2 Performance Rating

Category: 2

Trend: None

III.A.3 Recommendations

Licensee:

Continue efforts to achieve operator staffing goals and to provide a career path for long-time Shift Supervisors.

Improve the effectiveness of the process for equipment removal and return to service, and implement appropriate corrective actions.

Determine the reasons for problems with personnel attention to detail and care in performance of operating activities.

NRC: None

III.B Radiological Controls

III.B.1 Analysis

The previous SALP Report rated Radiological Controls as Category 2. Strengths included adequate implementation of the in-field health physics program, improved incident reporting system performance, improvements in relations between the health physics and other site sections, good ALARA performance, improved planning and coordination for jobs with high radiation exposure potential, initiation of a Management-By-Walking-Around program, and less reliance on contractor technicians. Weaknesses included decreased upper management attention to audit findings and a decreased quality of the self-assessment program, limited corrective actions following identified incidents, excessive non-compliance of workers to work requirements in the radiological controls areas, weak general employee training, and inadequate training facilities.

Radiological Controls

Most of the strengths noted during the previous assessment period remained strong points of the program during this assessment period. In addition, some of the weaknesses observed were corrected. However, some weak areas remained weaknesses during this period. One of these was the relegation of audit findings to lower levels of management, such as worker supervisors or section engineering staff, for analysis and correction, and the absence of root cause analysis and corrective actions in many cases. This trend has remained true during most of this period, as identified by audit findings as well as the findings of the incident reporting system. For example, the licensee's radiological incident reporting system identified a large number of incidents of radiation workers not adhering to the requirements of work permits or postings in the radiological controls areas. In most of these cases, corrective actions were limited to addressing the problems associated with

the specific incident and to counseling of the individuals involved. Trend analysis to identify recurring problems and formulate action to determine and correct the root causes was not started until close to the end of this assessment period. A second weakness that remained this period was worker compliance to radiation work controls. Concurrent with this problem, a program change occurred during the first part of this period that resulted in weakening the radiation work permit (RWP) system by allowing the permits to be less specific to the job and to cover many jobs located in areas with significantly different radiological conditions. This may have exacerbated the impact of the worker compliance problem. The RWP problem appears to have been addressed late in the assessment period, but the worker compliance problem and the weakness in the area of trend analysis and root cause determination still remained at the end of the period. However, near the end of the assessment period, upper management took action to broaden the attention paid to such incidents and to raise that attention to higher levels of site and corporate management. These included changes in the routing of incident reports, trend analysis of the incidents, and involvement of corporate health physics in root cause analysis. An assessment by a team of experts which included outside individuals to determine the causes of the observed deficiencies was also completed toward the end of this assessment period, and action plans for each of the site departments were developed. Improvements are not yet evident due to the recent implementation of these measures.

As indicated above, audit findings were relegated to lower levels of management resulting in ineffective root cause analysis. Nevertheless, the program audits that were done by the quality assurance section were quite effective in identifying problems within the program, and correction of the specific identified problems has been effective. A review of the number and type of audit findings, however, suggests examples of lack of attention to detail in program scope and content within the health physics organization. For example, one of the audit findings was that there was no mechanism in place to check incoming laundered articles to ensure acceptable contamination levels, nor was there one to ensure that the laundry vendor was abiding by the terms of its contract. The lack of a mechanism to check laundry resulted in some incoming laundry contaminating plant personnel. Other indications of this lack of attention to detail include absence of a current respirator qualification list at the issue point and some types of respirator test equipment not being calibrated. These problems were subsequently corrected by the health physics department. Trend analysis to determine the programmatic implications of these specific audit findings was not initiated until late in this assessment period.

There were no major radiological operational events during this assessment period. However, there were a number of relatively minor but recurring events that indicate ineffectiveness of corrective action to prevent recurrence, as discussed above. For example, there were over ten incidents of clean areas becoming contaminated because of overflowing tanks or failure to close valves on systems containing radioactive liquids. Some of these incidents involved the same tank overflowing on more than one occasion.

Early in the period there were personnel changes in four key supervisory positions: Senior Health Physicist, Applied Health Physics Supervisor, Radiological Engineering Supervisor, and the corporate Director of Radiological Controls and Chemistry. Three of these positions were filled by qualified personnel, but the Applied Health Physics Supervisor position (corresponding to field operations manager in similar organizations) was not filled There has been a trend to down-size the staff, particularly at the technician level, and by eliminating some positions. The Applied Health Physics Supervisor is one which has been designated to be eliminated. The duties of this position are to be incorporated partly into those of lower level supervisors and partly into those of the Senior Health Physicist. This change occurred at a time when the station was experiencing difficulties with worker compliance to work requirements in radiological areas and lack of attention to detail within the health physics organization.

The quality of the general employee training program (GET), one of the weaknesses during the last assessment period, was substantially upgraded and significantly improved over the old program. The training facilities were also considered poor during the last period, and this problem is currently being addressed. A new office facility has been completed for the training staff offices, library and audio-visual laboratory. A new building is also being constructed to house all training classrooms and access processing facilities. It is too early to assess the improvements in training effectiveness resulting from the improved GET program. The training for the health physics technical staff on site, such as radiological engineers and their supervisors, is not strong and is not well defined, as exemplified by many of the staff not receiving any significant professional training during this assessment period.

Performance in the ALARA area has been good. Planning for and implementation of work with high exposure potential was also good during this assessment period. The cumulative exposure was less than the goal during 1989 and the exposure during the Unit 2 mid-cycle outage during the early part of 1990 was less than the goal. The goals are being set at reasonably challenging levels. A hot spot dose reduction program is being pursued to eliminate as many hot spots as possible and to reduce the magnitude of those that cannot be eliminated. A project to decontaminate, paint and release areas for unrestricted use has also been successful, particularly in the areas no longer used for radwaste processing.

Radwaste, Transportation, Effluent, Radiological Environmental Monitoring, Confirmatory Measurements and Non-Radiological Chemistry

During the previous assessment period, continued good performance in the radwaste and Radiological Environmental Monitoring Programs (REMP) was noted. During the current assessment period, inspections of the licensee's radwaste, transportation, effluent, REMP, confirmatory measurements and non-radiological chemistry programs were conducted.

The licensee's Quality Assurance and Quality Control programs continued to be a notable strength. The scope and technical depth of audits within the radwaste, effluent and REMP were excellent. The QA/QC program for the chemistry laboratories was a notable strength.

The licensee continued to aggressively attempt to resolve technical issues. This responsiveness was clearly demonstrated by the licensee's prompt review and corrective actions in response to the problem of boron chemistry analysis, as identified during the non-radiological chemistry inspection. Conservative water chemistry goals and monitoring programs have been established by the licensee. Due to concerns regarding crud induced localized corrosion sensitive fuel rods, the chemistry staff has aggressively and effectively analyzed and monitored copper, one of the major contributors to this problem. Plant water chemistry status and recommendations regarding any needed preventive or corrective actions are discussed daily at the morning planning meeting. During those periods when water chemistry has exceeded the licensee's established specifications, the licensee has acted promptly to resolve the problem or initiated a power reduction.

Staffing levels and training of personnel, especially in the radwaste area, continued to be a licensee strength. Expertise was available within the radwaste and REMP staffs, while the training program for personnel involved in radwaste and transportation continued to make a positive contribution to this program area.

In summary, the radiological controls program continued to show some of the weaknesses identified during the previous assessment period, specifically in the areas of management oversight, root cause analysis and the self-assessment program, limited scope of corrective actions, and non-compliance of workers to work requirements in radiological areas. In addition, audit findings suggested a lack of attention to detail in the health physics organization relative to program scope and content. The trend to reduce the size of the staff on site may be aggravating these problems. Toward the end of this assessment period the licensee made an effort to address the adverse trend regarding non-compliance of workers to radiological work requirements. The program retained many of the strengths identified during the previous period, such as good performance in the ALARA area, a good incident reporting system, less reliance on contractors, and improved job planning and coordination. Performance in the areas of radwaste, transportation, effluent, and the REMP continued to be good.

III.B.2 Performance Rating

Category: 2

Trend: None

III.B.3 Recommendations

Licensee:

Determine root causes and corrective actions needed for long-term improvement in radiation worker adherence to requirements, and meet with the NRC to discuss the results.

NRC:

Conduct a special inspection in late 1990 or early 1991 to review the licensee's actions to resolve the above problems.

III.C Maintenance and Surveillance

III.C.1 Analysis

The previous rating for the Maintenance and Surveillance functional area was Category 2. The licensee strengthened performance by removing several layers of management, and by reducing and better controlling the maintenance backlog. Interface with other groups was satisfactory, and commendable within the maintenance organization. Surveillance test program problems were noted early in the period, but improvement was noted near the end. Major surveillance testing evolutions were well done.

During this period significant personnel changes in the Maintenance and I & C organization occurred late in the period. The Superintendent was promoted and four of his five supervisors were changed. More time is necessary to evaluate the effectiveness of these management changes. Staffing levels within the section have been reduced slightly, mostly due to release of contractors from temporary program areas.

Maintenance work activities were generally well planned with multi-discipline inputs. Personnel were knowledgeable of assigned work and procedure adherence was good. For example, replacement of the Unit 3 feedwater master level controller, replacement of a source range monitor during the Unit 2 mid-cycle outage, and repair of instrument lines on Unit 2 feedwater pumps were well-planned activities. Work performed was carried out using approved technical procedures and governing administrative procedures. However, poor planning prior to replacing a voltmeter on a safety-related battery charger led to a system voltage excursion and subsequent declaration of an Unusual Event.

The licensee has several initiatives underway in the maintenance area. The predictive maintenance program uses techniques such as thermography and vibration analysis. The licensee has a good motor operated valve testing program that uses MOVATS (motor

operated valve analysis testing) and VOTES (valve operator test and evaluation system). In addition, valve maintenance is now performed to minimize stellite migration into the reactor vessel, thereby reducing activation products and personnel exposure.

The quality of Failure Analysis Reports (FARs) generated by the maintenance engineering group was mixed. The FAR for a failed main steam isolation valve DC coil that caused a Unit 2 scram was good. Root causes and effective corrective actions were identified. However, when an automatic depressurization system solenoid coil failed, an analysis couldn't be performed because the coil was inadvertently discarded. A FAR concerning failed main steam line flow transmitters didn't address potential generic implications, was issued five months after the original failures, and wasn't updated to reflect additional failures.

The preventive and corrective maintenance backlog has been well controlled throughout the period. However, early in the period the NRC raised concerns regarding a large number of control room hardware problems identified by equipment trouble tags (ETTs). The licensee began tracking these ETTs and allocated additional manpower to repair the problems. By the middle of the period, control room ETTs were significantly reduced.

Housekeeping remained strong and exhibited additional improvement since the last period. The percentage of contaminated area within the plant remained low and less transient equipment was observed. Cleanliness levels in the drywell were acceptable.

Maintenance and I & C foremen attended an eight week newly created supervisory training course. Future selections for these foremen positions will be required to attend this continuing training. Maintenance craft and I & C technician groups have a permanently assigned on-the-job training coordinator who tracks, schedules, and evaluates both basic and continuing training.

Major surveillance testing evolutions performed during the period were largely well-planned and controlled. Licensee oversight of the Unit 3 hydrostatic test was good; however, inadequate planning for it contributed to a reactor scram. Effective corrective action was implemented and better planning was observed during later major tests. The Unit 3 containment integrated leak rate test (CILRT) was done well. All test personnel were knowledgeable and competent. Shift supervision was very aware of ongoing activities and monitored test progression.

Surveillance test (ST) performance was generally good and was conducted in accordance with approved procedures. However, some problems with procedural adherence were noted during conduct of routine STs. For example, the NRC Safety System Functional Inspection (SSFI) team identified a crew performing test steps out of sequence, not documenting step completions as they were performed and using uncontrolled instructions to set up test equipment. A second example was the Unit 2 reactor scram caused by improper performance of a power range monitor ST.

The ST scheduling process relies in part on the Surveillance Test and Records System (STARS) computer program. Although STARS is usually effective in scheduling appropriate testing, in some cases it has allowed STs to exceed their required interval without being recognized. STARS doesn't schedule STs required for mode or power level changes. Additionally, weakness was evident in the process for review and implementation of ST schedules generated by the STARS program. As a result, a large number of LERs were issued regarding failure to perform STs at the Technical Specification required frequency, and prior to changes in plant mode or condition. The missed STs generally occurred in groups during plant startups, and appeared to be related to increased activities in support of plant evolutions. At the close of the period, the licensee was reviewing the LERs to identify common contributors and root causes.

Near the end of the period three instances of inadequate review or disposition of ST results for safety-related equipment contributed to failure to identify that acceptance criteria hadn't been met. The first instance resulted in failing to recognize a burned-out ADS solenoid coil. The remaining two instances resulted in failure to enter Technical Specification Limiting Conditions for Operation and to perform timely follow-up testing. In both of the latter cases subsequent testing confirmed operability. In all three instances several levels of review failed to detect the discrepancies.

In summary, maintenance work continued to be well planned and executed, although there were incidents noted contrary to the above. Failure Analysis Report quality wasn't consistent, and at times analysis of root causes appeared to be limited. The program for ensuring timely completion of surveillance tests is weak as demonstrated by a number LERs generated in this area. Surveillance test results review to ensure equipment operability also evidenced some problems. Major surveillance tests were well planned and most routine surveillance tests observed were performed satisfactorily.

II.C.2 Performance Rating

Category: 2

Trend: None

III.C.3 Recommendations

Licensee:

Evaluate the surveillance test scheduling, performance and results review process to determine the cause for the noted problems, and implement appropriate corrective actions.

NRC:

Perform an inspection of the surveillance test program subsequent to completion of licensee corrective actions.

III.D Emergency Preparedness

III.D.1 Analysis

The previous SALP Report rated Emergency Preparedness as Category 1. This rating was based upon good licensee performance during exercises, strong site management support of the emergency preparedness program and a good ability to identify and resolve problems.

During this assessment period, a full-participation exercise was observed, a routine inspection was conducted, and changes to the emergency plan and implementing procedures were reviewed.

Management involvement and control in assuring emergency preparedness program quality is effective and extensive. Both station and corporate managers maintain Emergency Response Organization (ERO) position qualification, review and approve emergency plan and implementing procedure changes, participate in drills and exercises, and resolve audit issues. An extensive audit was conducted by the licensee to determine the quality of the emergency preparedness program. The audit results indicated that the program has shown continued improvement, particularly regarding resolving open items and interfacing with off-site support groups. Distribution of the audit was extensive and included senior station and corporate management. Management support of off-site activities was also evident. Corporate staff were permanently assigned to interface with off-site agencies and frequent meetings were held to discuss and resolve issues. The licensee also provided support for the training of off-site emergency workers and responders. The effectiveness of this training was demonstrated by the positive FEMA evaluation of performance during the full-participation exercise.

The licensee responded to three operational events during the period which required the implementation of their emergency plan. These events included what was considered to be evidence of tampering with a potential threat to plant safety, a reactor level transient following a scram, and a degradation of DC power sources. Each event was quickly recognized and was properly classified as an Unusual Event. Associated notifications were timely.

Staffing of the emergency preparedness program has improved. Early in the period, the licensee filled the position of Director, Emergency Preparedness with an experienced individual. Also during the period, the licensee filled the position for the Site Emergency

Preparedness Coordinator with an experienced permanent employee. This individual interfaces extensively with station management. Staffing increases for the site have been authorized and recruiting is underway. Additionally, the corporate organization has been changed to include lead positions with responsibility for Peach Bottom activities.

The ERO was fully staffed with four individuals qualified at key positions. Plant staff response has improved as evidenced by licensee performance in the full-participation exercise, as well as practice drills.

The licensee maintained an adequate training program, and its effectiveness was demonstrated during the full-participation exercise. The basis for training was clearly defined, and actual training consisted of a combination of classroom and hands-on training. Improvements in lesson plan and training content are warranted. The competence of the instructors results in effective program implementation and currently compensates for the weakness in lesson plans and training content. Training of off-site groups was current. During the full-participation exercise, the licensee demonstrated a very good knowledge of plant parameters and conditions and was able to quickly and effectively implement corrective actions which would have mitigated the simulated accident.

In summary, the licensee maintained a strong and effective emergency preparedness program. Management was involved with the program and committed to quality. The experience of the staff was high, and the licensee continued to expand the support staff. The ERO was fully qualified and able to respond to emergencies. Training was adequate as demonstrated by the full-participation exercise performance. The licensee maintained a good interface with state and local government agencies.

III.D.2 Performance Rating

Category: 1

Trend: None

III.D.3 Recommendations

Licensee: None

NRC: None

III.E Security and Safeguards

III.E.1 Analysis

During the previous assessment period, the licensee's performance was rated as Category 2, improving. That rating was based on the licensee's performance in establishing and implementing a security program that was effective and performance oriented. The licensee demonstrated a strong commitment toward achieving that goal, at all management levels, by strengthening the overall security program and organization, improving maintenance on security related equipment, upgrading existing equipment and replacing some aging equipment.

During this assessment period, two routine unannounced security inspections were conducted by region-based inspectors. Routine inspections by the resident inspectors continued throughout the period.

The licensee continued its strong commitment to the security program during this assessment period and demonstrated appropriate management involvement in implementing the program. This was most apparent by a significant improvement in protected area lighting; the establishment of well planned, in-plant defensive positions; the purchase and installation of new communications equipment for the alarm stations; the initiation of specialized training in tactical response and reactor systems, as well as other upgrades and innovations to improve the effectiveness of the program and the organization.

While significant improvements and enhancements to the overall program occurred during the period, a few areas were identified by the NRC as needing additional attention. These were primarily related to an apparent low priority for replacing aging equipment; the inadequate scheduling of some preventive maintenance activities; the inadequacies in the scope of some surveillance tests, particularly with regard to perimeter intrusion detection and assessment; and criteria for vital area access. The cumulative impact was assessed as not being a significant safety challenge. In those areas where improvements had already been scheduled, the licensee re-evaluated the schedule for implementation. In other cases, prompt corrective action was taken. This was indicative of the strong commitment to improve the program that had been demonstrated in the previous assessment period.

The licensee's corporate, plant and contractor management personnel were very actively involved in all plant security matters, as well as industry organizations and initiatives related to nuclear power plant security. The licensee and its contractor also established and actively engaged in open communications with the NRC with regard to program changes, i.e., improvements and enhancements that were being planned or implemented. The NRC believes that these actions significantly broadened the licensee's perspective on plant security.

Staffing of the contract security force was consistent with the workload as evidenced by the minimal use of overtime. The professionalism of the security force was high, and involvement in the program by the contractor's regional security management was very evident. The contract security force training section was staffed with well qualified instructors, and security force members were well trained and knowledgeable of their duties and responsibilities. A problem concerning security officer qualification was identified by the NRC; the licensee was not conducting a complete vision test in accordance with the NRC-approved Training and Qualification Plan. The licensee took prompt corrective action and implemented long-term measures to prevent recurrence.

The licensee's annual security audit and QA surveillance program were effective in identifying potential problem areas and possible program enhancements, and management's response to findings was prompt and effective. The improvement made to the security audit and surveillance program was a major factor in the licensee's ability to establish and implement an effective performance oriented program.

During the assessment period, the licensee submitted two security plan changes under the provisions of 10 CFR 50.54(p). These changes were technically sound, complete and reflected appropriate management oversight. The licensee also actively interfaced with the NRC to ensure that accurate and acceptable revisions were submitted.

During the assessment period the licensee submitted four event reports in accordance with NRC requirements. The events involved improperly stored Safeguards Information at corporate headquarters, tampering with equipment at the plant site, and two bomb threats. The licensee's actions in responding to and reporting of the events were prompt and appropriate.

In summary, the licensee continued to improve the security program in accordance with commitments made to the NRC. Management attention to and support for the program remained strong and demonstrably active. Technical issues were well thought out, and resolutions were sound and conservative. Training and requalification were very effective, staffing levels were appropriate and security force professionalism was high. Overall, the licensee implemented a very effective and performance oriented program throughout the period.

III.E.2 Performance Rating

Category: 1

Trend: None

III.E.3 Recommendations

Licensee: None

NRC: None

III.F Engineering/Technical Support

III.F.1 Analysis

This area was rated Category 2 in the last SALP report. The NRC SALP Board concluded that the licensee demonstrated strong control of major engineering efforts. Areas of weakness identified during the previous assessment period included environmental qualification, plant electrical load growth, and definition of task inspection requirements. The board recommended that the licensee assess its program to ensure consistent oversight and control in the quality of engineering projects. Additionally, the board recommended that the NRC perform a Safety System Functional Inspection (SSFI).

The NRC conducted a Safety System Functional Inspection to assess the operational readiness of the high pressure coolant injection (HPCI) system and the emergency service water (ESW) system. It was concluded that the design, design control, surveillance testing, and operational practices related to the ESW system weren't adequate to assure system operability. Internal licensee concerns identified as early as 1983 and as recently as 1989 were not appropriately pursued until the SSFI focused attention in this area.

In contrast, subsequent to the SSFI, the Nuclear Engineering Department (NED) and plant technical response to the ESW deficiencies reflected a conservative and methodical approach to the evaluation and resolution of the problem and included the creation of a task force. Analysis and testing were detailed and displayed a sound safety perspective. Site technical support was extensive.

Licensee-identified environmental qualification (EQ) issues continued to surface during the current assessment period. These problems involved component EQ design and components not properly maintained to meet EQ requirements. As a result of NRC questions concerning the EQ program, and a licensee root cause analysis in response to an LER, a licensee self-assessment of the EQ program was initiated in April 1990. That effort was not completed at the close of the assessment period. The licensee's efforts regarding the resolution of NRC unresolved items and violations relating to EQ and electrical equipment were generally good. Minor problems with thoroughness of contractor provided calculations and timeliness of drawing updates were identified.

Engineering support in response to plant operational needs was mixed. A noteworthy task, handled well by NED and the site technical support group, was the response to an

inoperable Unit 2 automatic depressurization system (ADS) valve. An Emergency Technical Specification Change Request to permit continued Unit 2 operation by extending the LCO was prepared and submitted in a timely manner. The staff found the analysis to be thorough and of high quality. Although engineering support was generally good, three instances were identified involving delays in the evaluation of operability issues. In each case, issues were identified to or by engineering and initial decisions regarding the impact on plant system operability weren't made in a timely manner. An example was the response to a concern raised by the site in 1989 regarding minimum battery voltage. Timely resolution wasn't provided, leading to complications during a loss of a battery charger and declaration of an Unusual Event in May 1990. The licensee showed improvement in this area, and a more proactive approach, during the latter part of the assessment period.

During the Unit 3 power ascension, onsite technical support was good. Pre-test briefings, test conduct, coordination and interdepartmental interfaces were satisfactory. Licensee actions to ensure the quality of test activities and to resolve technical issues were effective. The formation of the Test Review Group (TRG) was positive. The TRG was composed of representatives of operations, NED, I&C, maintenance, and system engineering and reviewed the adequacy of power ascension test results. The TRG was thorough, held weekly meetings and temporarily reported to the Plant Operating Review Committee.

During the current assessment period the licensee reorganized the onsite technical support group, resulting in improved management oversight. Additionally, a 27 week training program was established for the site system engineers. The Nuclear Engineering Department (NED) reorganized. Also, NED was consolidated with Nuclear Services under a single Vice President. A new modification process was implemented during the assessment period. NED is currently involved in upgrading the probabilistic risk assessment program, and in developing a design basis reconstitution program. These initiatives taken by the licensee during the period are positive, but are new and their effectiveness hasn't been assessed.

In summary, the licensee demonstrated strength in its engineering support of licensed activities. Several initiatives were undertaken and appear to be progressing. The relative inexperience of the system engineers noted in the last SALP report was improved. The formation of the Test Review Group was a positive action by the licensee to assure the adequacy of power ascension test results. These strengths were contrasted by continued weakness in EQ and by the delays in the evaluation of operability issues which occurred during the assessment period, although improvement in this area was apparent during the latter part of the period.

III.F.2 Performance Rating

Category: 2

Trend: None

III.F.3 Recommendations

Licensee: None

NRC:

Follow-up licensee corrective actions to address EQ program weaknesses and NRC SSFI findings.

III.G Safety Assessment/Quality Verification

III.G.1 Analysis

During the previous assessment period, licensee performance in the area was rated Category 2. Strengths identified were related to the level of management involvement in station activities, the Unit 2 restart power ascension testing program, oversight committee activities, and Shift Manager performance. Some instances of weak self-assessment capabilities were noted in areas such as the surveillance test program, health physics technician training, and the modification program.

Corporate and senior station management involvement in plant activities continued to be strong. During the assessment period, Unit 2 completed its power ascension program, Unit 3 was restarted, and both units attained full power operation. The licensee continued to implement an extensive self-assessment program to determine readiness for unit restart and to monitor power ascension, which was coordinated by a Management Oversight Team. The licensee's assessment and evaluation of plant hardware and personnel performance were well focused, detailed and stressed a controlled, conservative approach. With both units returned to power operation, licensee management monitored station performance through meetings such as the Station Review Meeting and daily meetings conducted at the plant.

The Quality Assurance (QA) organization was significantly involved in assessing the Unit 2 power ascension program, Unit 3 restart readiness, and the adequacy of ongoing plant operations. Effective QA performance was also observed in the security and emergency preparedness functional areas. During the assessment period, a significant improvement in Independent Safety Engineering Group (ISEG) effectiveness was observed. The ISEG Superintendent position was elevated to report directly to the QA General Manager and

additional staff positions were added, including a former Shift Manager with extensive operations experience. Station management frequently requested ISEG review and evaluation of plant events. ISEG investigations were comprehensive, identified safety significant issues, and proposed meaningful corrective actions.

The licensee's on site and off site review committees continued to perform effectively. The Plant Operations Review Committee (PORC) was significantly involved in assessing performance during the restart of both units and subsequent plant operation. PORC composition, focus and detail of review were found to be commensurate with the issues under discussion and consistent with Technical Specification (TS) requirements. It was noted by the NRC that in some cases the detail and content of PORC meeting minutes may not be sufficient to support meaningful evaluation by the Nuclear Review Board (NRB). The NRB continued to provide an aggressive, safety-oriented review of licensee activities. The membership composition, meeting frequency, and expertise exceed the requirements of the TS. The Board includes three individuals from outside the licensee's organization, providing useful perspectives of plant issues.

Mixed performance was observed in the licensee's approach to plant operations and the resolution of technical issues. Conservatism was routinely exhibited in the conduct of plant evolutions, such as in the restart of both units and associated power ascension programs, and the licensee's corrective actions to address emergency service water system operability concerns identified by an NRC SSFI.

In contrast, however, licensee performance in response to several issues during this assessment period were less than fully effective. An NRC SSFI conducted in February, 1990 concluded that the licensee hadn't adequately assessed the safety significance of design deficiencies for the emergency service water system and initiated prompt corrective actions. This was primarily attributed to a lack of follow-up and inadequate communication of engineering requirements to station personnel. Problem areas such as the scheduling and conduct of surveillance testing, environmental qualification deficiencies, and radiation worker practices, which were discussed in the previous SALP report, continued to be areas of weak performance. In addition, weaknesses were observed in attention to detail in the conduct of operations and with implementation of the radiation protection program and practices. It appeared that a more appropriate level of management attention was observed in high risk evolutions than for routine operations and radiation practices.

In the evaluation of operational events, the licensee instituted the Operations Incident Investigation process and began use of the Human Performance Evaluation System (HPES) prior to the current assessment period. Inspections indicated that only minimal resources were applied to HPES, and the Operation Incident Investigation System developed a large backlog which made timely review and implementation of corrective actions difficult. In general, the process for identification and analysis of problems and events by the line organizations was not strong. In instances such as the Unit 3 control

rod mispositioning events, the NRB identified issues needing significant licensee evaluation which should have been more thoroughly addressed by the responsible plant staff prior to NRB questioning. Weaknesses were also observed in the conduct of failure analysis reports for maintenance items. Late in the current SALP period, the licensee implemented a new event investigation system. Implementation required conduct of a significant amount of training, included the creation of a new "Event Investigation Coordinator" position, and represented a significant commitment of resources for follow-up and root cause analysis of plant events.

Routine licensing activities have shown adequate licensee performance in most instances. Excellent performance was observed in activities associated with the fuel management section within engineering, and in an emergency Technical Specifications change request for continued operation with an inoperable ADS valve. Although license amendment applications show clear evidence of quality control measures and attention to detail, there have been instances of relatively weak technical justification of the licensee's positions, such as the request for a one time extension for snubber inspection frequency. Licensee response to NRC Generic Letters and Bulletins have consistently shown a clear understanding of the issues involved. The responses were submitted in a timely manner and acceptable resolutions proposed in most cases.

During the assessment period, the licensee made a number of senior corporate management changes, including the assignment of a new Vice President-Peach Bottom. The licensee also made a number of personnel reassignments at mid-level management positions in the Technical, Maintenance, and Operations organizations, including placement of current Shift Managers into key staff positions. The intent of these reassignments is to broaden the experience of selected mid-level managers, and to provide a larger pool of qualified individuals.

In summary, corporate and station management involvement in station activities continued to be strong. Management continued to be aggressive in problem resolution and was directly involved in assuring nuclear safety. Improvements were noted in the licensee's quality assurance organization, particularly in the performance of the ISEG. On site and off site review committees continue to perform effectively in their review of plant operations. Licensee management generally displayed a technically sound and conservative approach to operation and maintenance of the plant during the assessment period. Continuing problems in the areas of surveillance testing, radiation worker practices and operations equipment status control, however, have not been fully resolved.

III.G.2 Performance Rating

Category: 2

Trend: None

III.G.3 Recommendations

Licensee: None

NRC: None

IV SUPPORTING DATA AND SUMMARIES

IV.A LICENSEE ACTIVITIES

BACKGROUND

In March 1987 the NRC issued an Order to the Philadelphia Electric Company (PECo) suspending operation of Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3. The Shutdown Order also required that, before proposing operation of either unit, PECo develop a comprehensive plan to assure the facility would be operated safely and comply with all requirements.

In October 1988, the NRC accepted PECo's proposed "Plan for Restart of Peach Bottom Atomic Power Station." Following satisfactory NRC assessment of PECO's performance and implementation of this plan, the requirements of the Order were modified in April 1989, to permit startup and operation of Unit 2 up to 35% power. The requirements of the Order were modified again in June and July of 1989 to permit operation of Unit 2 at 70% and full power, respectively, following satisfactory PECo and NRC assessments of plant personnel and equipment performance. In October 1989, the NRC determined that PECo management continued to be aggressive in problem resolution and was directly involved in assuring nuclear safety. Accordingly, the NRC terminated the requirements of the Order, thus permitting unrestricted operation of both units at full power.

UNIT 2

At the beginning of the period, Unit 2 was at 68% power and implementing the Restart Power Ascension Testing Program in accordance with the modified NRC Order of March 31, 1987 which allowed power to be increased to 70%. NRC further modified the Order to allow 100% power upon successful completion of the 70% plateau. Full power was achieved on August 4, 1989. On March 3, 1990 the unit was shutdown for a mid-cycle outage for maintenance, testing and some modifications. The outage was completed on March 24, but the unit remained shutdown until operability testing of the emergency service water system was completed. The unit returned to full power May 8, 1990. Three automatic reactor scrams from power and three unplanned shutdowns occurred during the period as described in Section II.C. At the end of the period, Unit 2 was at full power.

UNIT 3

Unit 3 completed the recirculation pipe replacement outage in August of 1988. From the beginning of the period until September 1989 the major activities were completion of outage maintenance work, modifications, system restoration, and preparations for reload of fuel. Fuel reload began September 10, 1989 and was completed in 10 days. Reactor vessel reassembly, hydrostatic testing and containment integrated leak rate test were completed in preparation for restart. On November 19, 1989, Unit 3 restart commenced, achieving criticality on November 20. Full power was achieved on January 5, 1990. At the end of the period, power on Unit 3 was being maintained at about 90% due to condenser efficiency problems caused by an out of service circulating water pump.

IV.B NRC Inspection and Review Activities

Three NRC resident inspectors were assigned to the site during the assessment period. The total NRC direct inspection effort expended during the 11-month assessment period was 5263 hours or 5747 hours on an annualized basis. Distribution of these hours is shown in Table 1.

NRC team inspections and reviews were conducted as follows:

- Special Restart Safety Inspections conducted during the Unit 2 power ascension program. The resident staff was augmented and conducted 24 hour observations during power ascension phases.
  - June 18 through July 29, 1989
  - July 30 through September 2, 1989

- Special Restart Safety Inspection conducted November 11 through 17, 1989, to determine the readiness of Unit 3 for restart.

- Emergency Preparedness Inspection conducted on February 7, 1990 to observe the full participation annual exercise.

- AEOD Review of the Unit 2 trip due to an EHC leak from a control valve conducted February 1990.

- Safety System Functional Inspection conducted February 5 through 16 and February 26 through March 2, 1990. Systems reviewed were emergency service water and high pressure coolant injection.

IV.C Significant Enforcement Actions

The Shutdown Order of March 31, 1987 was modified on April 26, 1989 to allow restart of Unit 2. Based on PECo demonstration of satisfactory performance, the Order was further modified on June 28, and July 21, 1989 to allow power ascension. On October 5, 1989, NRC terminated the requirements of the Shutdown Order, permitting operation of both units at full power.

During the SALP period NRC initiated one potential escalated enforcement action. An NRC Safety System Functional Inspection (SSFI) Team (Inspection Report 90-200) identified that adequate analysis and testing to establish the ability of the emergency service water (ESW) system to perform its design function hadn't been performed. Two examples of failure to perform adequate safety evaluations for modifications to the ESW system were noted. Inspection Report 90-06 identified that the plant had operated for about 32 hours in August 19[illegible] with all three pumps capable of providing flow to the ESW head loads inoperable. Following the SALP period the NRC issued a Severity Level III violation and a proposed civil penalty of $75,000.

TABLE 1

INSPECTION HOURS SUMMARY*

Peach Bottom Atomic Power Station

July 1, 1989 - May 31, 1990

Functional Area	Hours	Annualized Hours	% of Time
A. Plant Operations	2324	2535	44
B. Radiological Controls	523	575	10
C. Maintenance/Surveillance	742	817	14
D. Engineering/Technical Support	635	692	12
E. Emergency Preparedness	133	145	3
F. Security and Safeguards	193	210	4
G. Safety Assessment/ Quality Verification	709	773	13
TOTALS	5263	5747	100

* Excludes direct inspection hours associated with the AEOD human factors oriented event review.

TABLE 2

ENFORCEMENT SUMMARY

Peach Bottom Atomic Power Station

July 1, 1989 - May 31, 1990

	Number/Severity of Violations	
Functional Area	Level III	Level IV
A. Plant Operations	1	4
B. Radiological Controls		1
C. Maintenance/Surveillance		1
D. Engineering/Technical Support	2	
E. Emergency Preparedness		
F. Security		1
G. Safety Assessment/ Quality Verification		
TOTALS	3	7

Note: The three violations listed in the Severity Level III column were collectively evaluated as a Severity Level III problem and one enforcement action issued.

TABLE 3

LICENSEE EVENT REPORTS*

Peach Bottom Atomic Power Station

July 1, 1989 - May 31, 1990

Functional Area	Number by Cause** A	B	C	D	E	X	Subtotal
A. Plant Operations	3	1	-	2	5	1	12
B. Radiological Controls	-	-	-	-	-	-	--
C. Maintenance/Surveillance	8	1	-	5	3	5	22
D. Engineering/Technical Support	1	3	-	1	-	1	6
E. Emergency Preparedness	-	-	-	-	-	-	--
F. Security***	-	-	-	-	-	-	--
G. Safety Assessment/ Quality Verification	-	1	-	-	-	-	1
TOTALS	12	6	-	8	8	7	41

Review of the events included in the above table for common problems and causal factors indicates that weaknesses in the licensee's surveillance test scheduling program account for a large percentage of the reports submitted in the Maintenance/Surveillance functional area. This issue is discussed in detail in Section III.C.

* LERs 2-89-13 through 33; 2-90-01 through 2-90-05; 3-89-01 through 12; 3-90-01 through 3-90-03

** Cause Codes: A. Personnel error
B. Design, manufacturing or installation
C. Unknown or external cause
D. Procedure inadequacy
E. Component failure
X. Other

*** Security Event Reports are discussed separately in Section III.E.

ATTACHMENT 1

SALP CRITERIA

Licensee performance is assessed in selected functional areas, depending on whether the facility is in a construction or operational phase. Functional areas normally represent areas significant to nuclear safety and the environment. Some functional areas may not be assessed because of little or no licensee activities or lack of meaningful observations in that area. Special areas may be added to highlight significant observations.

The following evaluation criteria were used, as applicable, to assess each functional area:

- o assurance of quality, including management involvement and control
- o approach to the resolution of technical issues from a safety standpoint
- o responsiveness to NRC initiatives
- o enforcement history
- o operational and construction events, including response to, analyses of, reporting of, and corrective actions for
- o staffing, including management
- o effectiveness of training and qualification program

On the basis of the SALP Board assessment, each functional area evaluated is rated according to three performance categories. These definitions of these performance categories are given below.

Category 1.

Licensee management attention and involvement are readily evident and place emphasis on superior performance of nuclear safety or safeguards activities, with the resulting performance substantially exceeding regulatory requirements. Licensee resources are ample and effectively used so that a high level of plant and personnel performance is being achieved. Reduced NRC attention may be appropriate.

Category 2.

Licensee management attention to and involvement in the performance of nuclear safety or safeguards activities is good. The licensee has attained a level of performance above that needed to meet regulatory requirements. Licensee resources are adequate and reasonably allocated so that good plant and personnel performance is being achieved. NRC attention may be maintained at normal levels.

Category 3.

Licensee management attention to and involvement in the performance of nuclear safety or safeguards activities are not sufficient. The licensee's performance does not

significantly exceed that needed to meet minimal regulatory requirements. Licensee resources appear to be strained or not effectively used. NRC attention should be increased above normal levels.

The SALP Board may assess a functional area and compare the licensee's performance during a portion of the assessment period to that during an entire period in order to determine a performance trend. Generally, performance in the latter part of a SALP period is compared to the performance of the entire period. Trends in performance from period to the next may also be noted. The trend categories used by the SALP Board are as follows:

Improving: Licensee performance was determined to be improving near the close of the assessment period.

Declining: Licensee performance was determined to be declining near the close of the assessment period and the licensee had not satisfactorily addressed this pattern.

A trend is assigned only when, in the opinion of the SALP Board, the trend is significant enough to be considered indicative of a likely change in the performance category in the near future. For example, a classification of "Category 2, Improving" indicates the clear potential for "Category 1" performance in the next SALP period.

It should be noted that Category 3 performance, the lowest category, represents acceptable, although minimally adequate, safety performance. If at any time the NRC concluded that a licensee was not achieving an adequate level of safety performance, it would then be incumbent upon NRC to take prompt appropriate action in the interest of public health and safety. Such matters would be dealt with independently from, and on a more urgent schedule than, the SALP process.