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SUBJECT: Forwards plant SALP status rept.

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May 18, 1989

G02-89-092
Docket No. 50-397

Mr. J. B. Martin, Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Dear Mr. Martin:

Subject: **WNP-2 SALP STATUS REPORT**

At the conclusion of the WNP-2 SALP status review meeting held in Richland on January 5, 1989, between Supply System and NRC staff, it was agreed that a follow-on meeting would be held prior to the start of our 1989 refueling outage. The primary purpose of this follow-on meeting would have been to provide another update on the results of our activities in response to the recommendations contained in the 1988 SALP report. Because circumstances have prevented the meeting from taking place prior to the start of the outage, this letter and attachments provide the information that the Supply System would have presented at the status meeting.

BACKGROUND

The 1988 SALP report was issued July 20, 1988, and covered the period June 1, 1987, through May 31, 1988. While the SALP Board found our overall performance to be "acceptable and directed toward safe operation," there were a number of concerns identified by the NRC during the assessment period. Because performance in two of the functional areas was evaluated as Category 3, a management meeting was held at the Region V offices on August 18, 1988, to discuss the Supply System's improvement program.

Prior to receipt of the 1988 SALP report, the Supply System initiated a number of improvement programs in various areas in order to correct recognized deficiencies. These improvement initiatives were discussed with you and your staff in a meeting at the Region V office on June 7, 1988. The programs represented some ambitious goals and were received by you with guarded optimism. Since one of the NRC SALP findings was "insufficient follow through on commitments and corrective actions," you expressed interest in seeing results as opposed to program descriptions.



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In the January 5, 1989, meeting the Supply System reported on progress in implementation of the programs presented on June 7. Significant results reported at this meeting included:

- The successful completion of the 1988 refueling outage and an error free return to power.
- Improved personnel accountability and procedural compliance.
- The completion of root cause training for 33 Supply System personnel and the implementation of a sound root cause program.
- Completion of a five day "Quality Management Skills" training program for all managers and supervisors from the Managing Director to first line supervisors (all current managers and supervisors completed the first phase of training by the end of February 1989).
- Improving trends in most plant performance indicators.
- Increased management involvement in plant operations and support.
- Significant organizational changes to improve management effectiveness, decrease span-of-control, and improve the overall working environment.

Although the Supply System was able to demonstrate significant accomplishments in the January 5 meeting, the NRC attendees still viewed the results with a degree of skepticism and noted that while the results indeed indicated an improvement, it was still a single data point. It was agreed that another meeting would be scheduled prior to starting the 1989 refueling outage to report on further results.

## CURRENT STATUS

WNP-2 was shut down on April 28 to close the annual operating cycle and begin the 1989 refueling outage. Although an inoperable Main Steam Isolation Valve limited the plant to approximately 78% of capacity since February 3, 1989, the capacity factor for the operating cycle was 76.2%, an increase of 2.7% over the previous operating cycle.

A single reactor scram during the operating cycle occurred on January 30, 1989, the result of an insulator failure on the output side of the main transformer.

The attachments to this letter provide further information related to the implementation of improvement programs in each of the functional areas reviewed by NRC in the 1988 SALP report. Our assessment of the effectiveness of the initiatives presented at the June 7, 1988, meeting is that the programs and actions taken have made a notable improvement in the operation and support of WNP-2. While we recognize that improvement is a continual process, the results achieved to date indicate that the improvement programs are having the desired effect. The attachments do not represent a final report on our SALP improvement plans, since some of the items involve long-term programs. However, they do provide an additional data point to demonstrate an improving trend.

The attached Appendix A provides a summary of accomplishments and improvements in each of the evaluated SALP areas. Appendix B provides the status of all commitments from our September 17, 1988, response to the 1988 SALP report.

If you have any questions, please contact me.

Very truly yours,

G. D. Bouchey, Director
Licensing & Assurance

GCS/tlr

Attachments

cc: C. J. Bosted, NRC Resident Inspector (901A)
G. W. Knighton, NRC
T. E. Murley, NRC
N. S. Reynolds, BCP&R
R. B. Samworth, NRC
NRC Document Control Desk

# APPENDIX A

## SUMMARY OF SALP IMPROVEMENT ACCOMPLISHMENTS

OPERATIONS

1988 SALP RECOMMENDATIONS:

Supply System management is strongly encouraged to assume a more active involvement in the day-to-day operation of the plant and to give particular attention to assurance that corrective actions and commitments are aggressively pursued and effectively implemented. Plant management should continue with implementation of the root cause assessment program. Additional steps need to be taken to effectively correct and minimize personnel errors and stress the importance of correct individual performance. Particular emphasis should be placed on improving operator attitudes regarding the use of procedures and stopping in the face of uncertainty. Additional management emphasis and resources should also be devoted to provide for more expeditious completion of the simulator upgrade program. Most importantly, the Board considers that a serious self-critical attitude is essential to effectively confront, penetrate, and resolve plant problems so that operational activities are continually improving. The licensee is encouraged to adopt this critical attitude to promote and maintain high standards of excellence within the entire plant staff.

CURRENT STATUS:

The Supply System has taken aggressive management and programmatic steps to resolve the operations issues raised in the 1988 SALP report. These actions are having a positive impact on the quality of operation as evidenced by the overall improvement in this operating cycle. Specific actions taken include:

- Several management and personnel changes were implemented during this SALP period for the purpose of strengthening operational performance and providing improved support to the operation staff.

- A new plant specific simulator has been purchased for delivery in July 1991. The existing simulator is also being upgraded as necessary to ensure adequate interim training.

- A formalized Training Observation Program has been implemented which increases Operations management's role in the training process. This program outlines the methodology for monitoring and assessing training programs, identifies the managers/supervisors involved, defines the frequency of observation, outlines the data collection process, and provides observation checklists for written feedback. The program was implemented in February 1989 and includes the requirement for the Plant Operations manager and Plant senior management to observe and evaluate crew simulator training on a regular frequency.

- An upgraded operator training requalification program has been implemented.

- The Operations manager/shift managers' perform weekly evaluations of the operating crews during simulator training sessions.

Operations management also has weekly update meetings during the requalification week to discuss generation/training activities, provide training on sensitive issues, and present management expectations.

- Operations/Training have established an Operations/Training Review Committee composed of Operations' managers/supervisors and Training managers/supervisors/instructors that meets at the conclusion of each training cycle to discuss areas of mutual concern including: the effectiveness of the previous cycle's training, the content of training (present and future cycles), list of topics suggested by the students, and performance strengths and deficiencies.

- The Conduct of Operations procedure (PPM 1.3.1) was upgraded significantly. The result is a more controlled, systematic approach to operation. Management expectation in areas such as procedural compliance, operator communications, conservative approach to safety, not proceeding in the face of uncertainty, etc. are documented in this procedure and Operations management has personally trained crews on its content.

- Operations crew staffing has been enhanced by a temporary reduction from 6 to 5 shifts. This increased manpower on each shift, which increased the experience level and the on-shift coverage of plant evolutions, also allows strengthening of various supporting functions (e.g., clearance order review, procedure review, etc.) with experienced Operations staff. The current budget planning calls for training additional staffing and returning to six shifts as soon as practical.

- Significant improvements have been implemented in the planning and scheduling area, including addition of a former operations shift manager to the scheduling staff. These improvements support better prioritization of operational needs and overall improved operational performance.

- Improvements have been implemented in the management system Plant Tracking Log for scheduling and tracking actions or open issues. Individuals are held accountable for performance to schedules established by this system.

- The plant problem reporting system (PPM 1.3.12) has been significantly improved to provide increased management attention to equipment operability issues and problem disposition methods as well as improved root cause assessment.

- A self-critical peer review process has been implemented for personnel actions associated with significant operational events. This process compliments our ongoing Human Performance Evaluation System (HPES) and the formal Root Cause Analysis Program.

- An effort is in progress to upgrade plant emergency operating procedures. Revision 3 of the BWR Owners' Group EOPs and an upgraded EOP flow chart are currently in use. An aggressive effort is underway to implement Revision 4 of the owners' group

guidelines.

- WNP-2 management has adopted a more conservative approach to the implementation of plant shutdowns upon failure to meet a Technical Specification LCO or surveillance interval or when equipment operability is in question (Tech Spec paragraph 3.0.3 and 4.0.3).

- Plant and corporate management are taking a more self-critical attitude in evaluating all areas of our operations and support activities. Quality Management Skills training has been provided to all managers and supervisors. This training emphasizes the importance of quality work and how to achieve it. As a result, we are taking a more objective look at the situation and seeking effective communications, sound solutions to problems, better teamwork, and improved attitudes toward safety and quality.

- The plant "clearance order/tag-out" process has been significantly improved. Procedures have been upgraded to bring our program into full conformance with INPO "Good Practices" guidelines in this area. A clearance review committee has been added to our process to do an independent review of every clearance order. Additionally, an automated tagging system is being developed which will make optimum use of a library of standardized clearance orders. This type of system should reduce the potential for clearance order review errors.

- Significant efforts are in progress to reduce the plant backlogs in areas such as operating experience lessons awaiting implementation, nonconformance report resolution, maintenance work requests, etc. This long-term effort will continue emphasizing prioritization of the more safety significant issues and minimization of the potential for backlog items that could affect plant reliability or operational safety performance.

- Supply System management (Plant, Engineering, and Corporate) has become much more visible in the plant. Regular plant tours are being conducted by management at all levels. In addition to providing management with firsthand knowledge of conditions in the plant, this is resulting in more direct contact between management and the working level employees. Employees are being given the opportunity to discuss problems, complaints, successes, etc. with management in informal one-on-one conversations. These contacts are resulting in the removal of communication barriers between levels in the Operations organization and across organizational boundaries. It is our belief that an attendant improvement in employee attitude and morale is occurring.

- Considerable effort has been directed at improving operating procedures and attitudes regarding procedures. A full time procedures review group was established resulting in significant progress toward improved operating procedures. When procedures are unclear or are in error, changes are being made to make them clear and correct. Operators (and others) are being instructed on the need to comply with procedures and to identify areas where

clarification or correction is needed. They are made aware of their personal accountability in procedural compliance. The decrease in number of events attributed to operator error demonstrates that this program is effective.

The overall result of the many operational improvement initiatives has been better plant operational performance during the last operational cycle. Examples of improving performance indicators include:

- improved equivalent availability (This indicator increased from 59% in 1987 to 65.8% in 1988. For the 12 month period ending June 30, 1989, an equivalent availabiity of 69% is projected.)
- one reactor scram since the last refueling outage
- fewer significant operational events during the cycle
- several trouble-free startup/shutdown evolutions to respond to equipment related forced outages
- fewer LERs attributable to personnel errors
- fewer ½ scrams (28 in calendar year 1987 compared to 12 in calendar year 1988)

An ongoing commitment to operational excellence and continual improvement should result in even better future performance. The status of specific SALP related commitments in the Operations area is contained in Appendix B.

RADIOLOGICAL CONTROLS

1988 SALP RECOMMENDATIONS:

Management should provide increased emphasis toward assuring that all of the basic aspects of the radiological control program are fully implemented during outages as well as during normal plant operations. The focus of management's attention in this area should extend to ensuring effective implementation of the radiological control program requirements as they interface with other elements of plant operations.

CURRENT STATUS:

The following specific actions have been initiated or were completed by the Supply System with the objective of increasing the level of compliance with the Health Physics Program:

- A work control supervisor has been added in Health Physics to provide enhanced supervision of HP technician field activities. Restructuring within the HP department also allowed the assignment of a second individual as a work control supervisor.
- The budget for FY90 includes funds for additional HP personnel to augment current staff.

- Management has directed all levels of supervision to raise the priority assigned to observation of field activities. Since the beginning of the fiscal year, over 6,400 man-hours have been expended by management in the area of plant surveillance.

- Plant staff developed a training module designed to heighten supervisory awareness of recent NRC Enforcement Actions in the area of health physics compliance and solicit cooperation by plant staff in raising the Supply System compliance level. This training was presented by supervision to their staff members as part of regularly scheduled safety meetings.

- The Supervisory Radiation Area Training Course was extensively revised and presented to a majority of plant supervision prior to RF-89A. In addition to other topics, the revised training focuses on the responsibilities of supervisors in ensuring program compliance, details specific individual responsibilities that require supervisory reinforcement, and discusses job planning as an integral part of good performance.

- A comprehensive trend analysis and root cause evaluation of CY 1988 Radiological Occurrence Reports (RORs) was performed to detail specific shortcomings in HP program compliance. Based on this information, an extensive list of recommendations was developed and is being implemented. Trending of RORs during the first quarter of CY 1989 indicates that although the root causes remain similar, the frequency has decreased from 1.02 events per week during CY 1988 to 0.83 events per week during the first quarter of CY 1989.

- Many of the HP program procedures have been revised with a specific goal of improving clarity as it relates to the communication of compliance requirements. These include revisions to PPM 11.2.7.3, Entry Into and Egress from High Radiation Areas, and PPM 1.11.8, Radiation Work Permit. PPM 11.2.7.2, Entry Into, Conduct In, and Egress from Radiologically Controlled Areas, was revised and converted to a Volume 1 procedure (PPM 1.11.11) to gain broader distribution. PPM 11.2.19.1, Investigation of Non-Reportable Radiological Occurrences, was revised to provide more emphasis on event analysis, trending, and root cause evaluation.

- The Radiation Occurrence Reporting (ROR) system has been improved including routine performance of root cause analysis on most RORs.

- Selected HP staff members were trained in root cause analysis methods.

- Disciplinary policies for failure to comply with radiological program requirements are in place and are being enforced in cases where workers fail to conform.

- A training program for junior Health Physics technicians is being developed and will be completed by October 1, 1989. This program will formalize and improve personnel qualifications and performance. It includes radwaste worker training.

These program enhancements demonstrate our commitment to provide the necessary attention to ensure that our radiological control program will be even more effective than in the past.

Several procedural or physical plant improvements have been implemented or are in progress to enhance radiation protection; e.g.:

- removal of the drywell "hot-spot" during the R-4 outage
- addition of improved portal monitors at the entry to the main Control Room, Technical Support Center, and the Radwaste Control Room
- improved area posting practices through the use of more permanent signs
- Engineering plans are being developed to modify the control rod drive rebuild room with the goal to significantly reduce personnel exposures during the rebuild process.
- The radwaste minimization program is being implemented and is currently reducing the volume of dry active waste by 85% to 95%.
- A revised method for handling high radiation entries has been implemented. All high radiation activities are covered by specific radiation work permits and require a briefing by Health Physics personnel prior to entry.
- An evaluation of the radwaste facility is nearing completion with the objective to improve handling efficiency and reduce personnel exposures.

A comparison of WNP-2 performance against other BWRs demonstrates that the WNP-2 radiological control program has been effective in controlling occupational exposure. In calendar year 1987 (used for the 1988 SALP evaluation) personnel exposure at WNP-2 was 406 man-rem vs. a BWR average of 521 man-rem. Our efforts in calendar year 1988 resulted in a reduction of 53 man-rem, to a total 353 man-rem. The BWR average experienced a 10 man-rem reduction to 511 man-rem. Figures 1 and 2 provide the WNP-2 and BWR industry averages, respectively.

MAINTENANCE/SURVEILLANCE

1988 SALP RECOMMENDATIONS:

The licensee is strongly encouraged to pursue more aggressive measures to reduce the number of personnel errors and procedure compliance problems. Management should give additional emphasis to improving root cause assessments, strengthening the training program, and ensuring proper communication of management expectations to craft personnel.

CURRENT STATUS:

The Supply System has initiated a number of improvement initiatives in the maintenance area. Specific actions include:

# PERSONNEL EXPOSURE

WNP-2

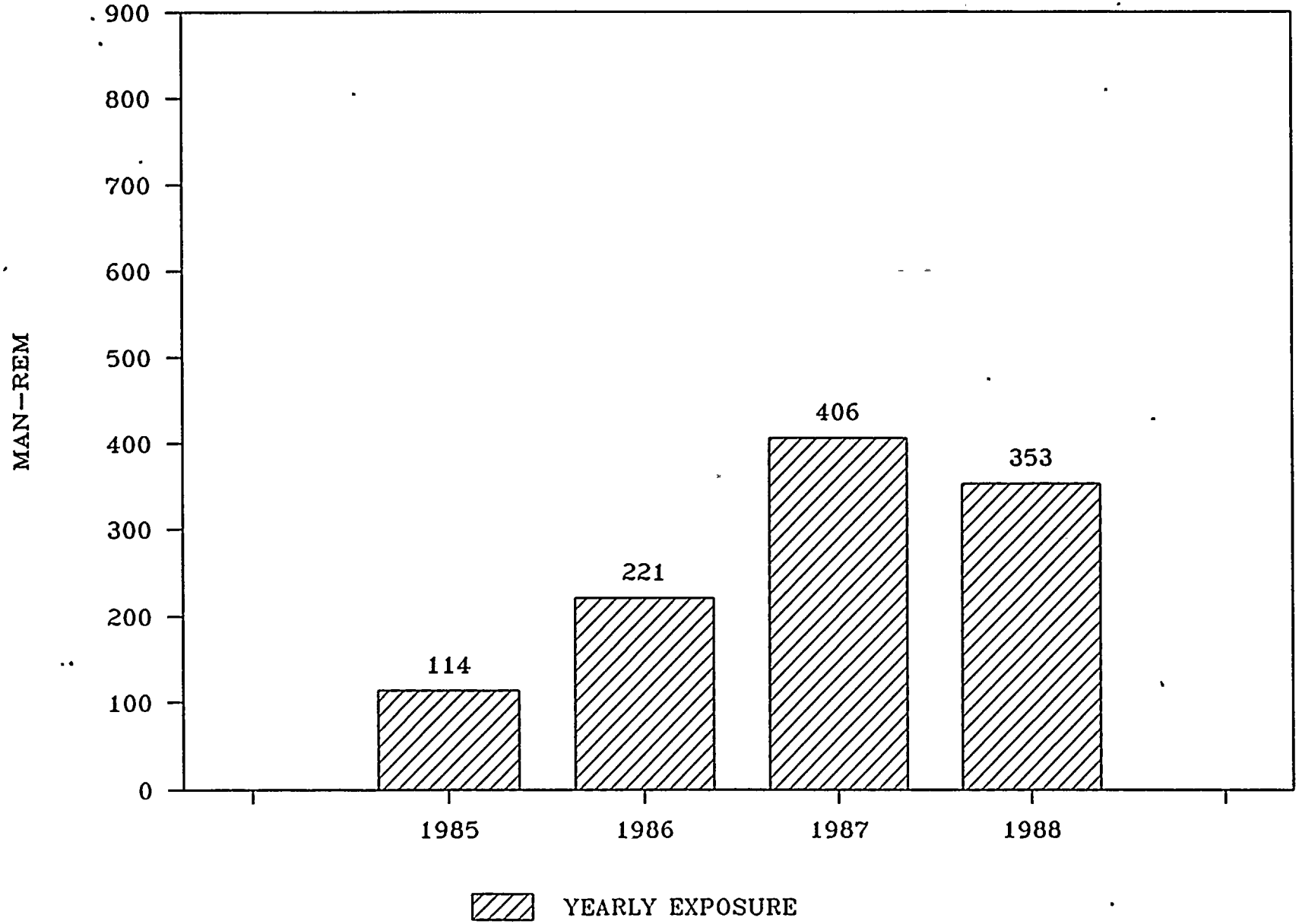


FIGURE 1

# PERSONNEL EXPOSURE

INPO BWRs ONLY

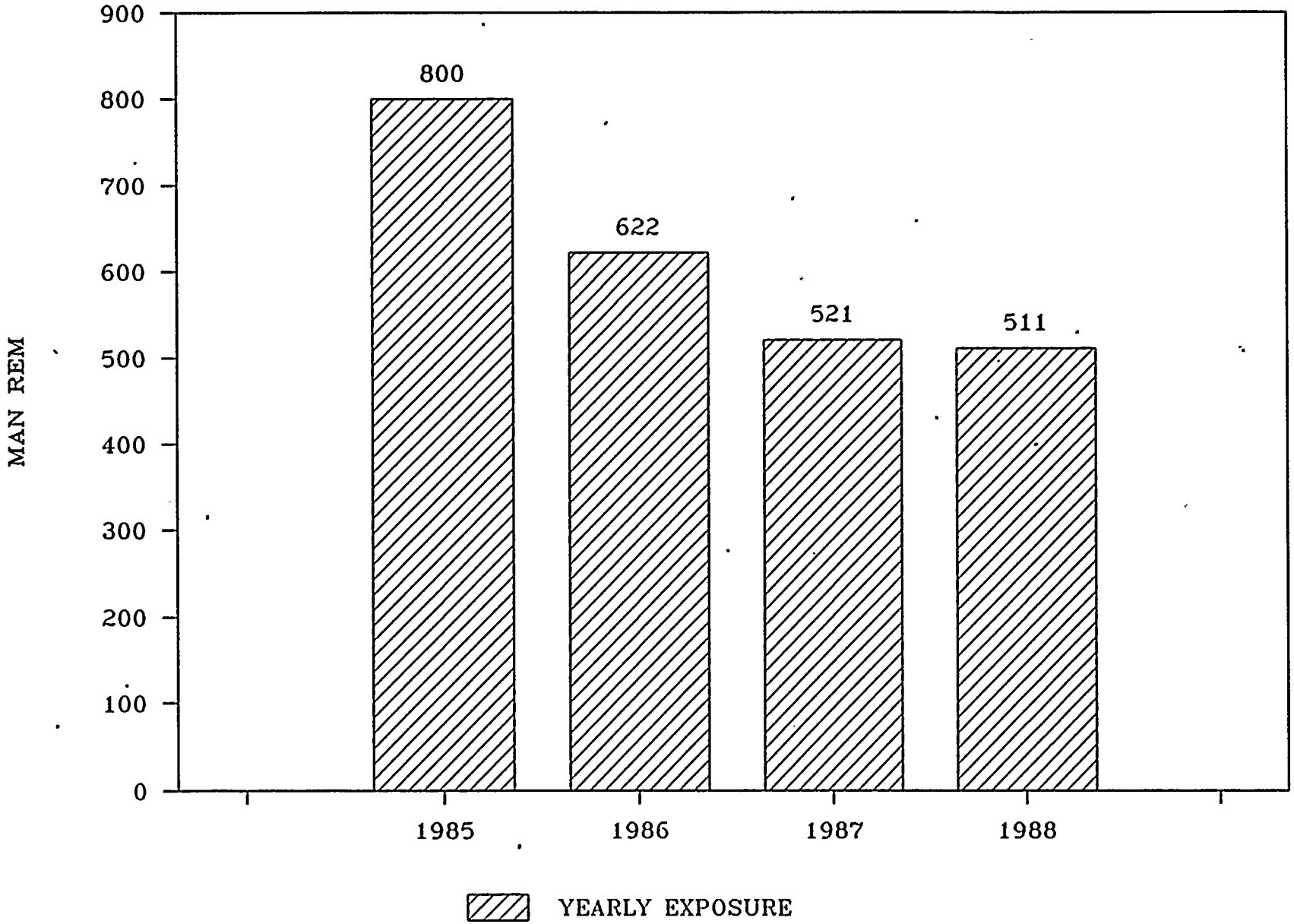


FIGURE 2

- A self-assessment of maintenance practices involving both Maintenance department staff and Quality Assurance personnel was concluded in early 1989. The assessment utilized INPO and other available information on effective maintenance practices and identified the need to improve maintenance programs in several areas. These include better long-range planning, improved productivity, improved trending, more use of reliability information, and overall work request backlog reduction.

- An expanded Planning and Scheduling department, reporting directly to the Plant Manager, was established with additional resources to develop a long-range corporate planning capability and stronger project management capability. This group also develops detailed forced outage and scheduled refueling outage plans to address all outage related work requests. A new daily demand scheduling process has been implemented to control work package preparation, part staging, and shop productivity. Maintenance work efforts are now directed at the priority work with sufficient management follow through to ensure accountability.

- Maintenance personnel errors affecting plant performance have been strongly dealt with through personal communication sessions with plant personnel. Communicating a clearer understanding as to the necessity and reasons for error free performance in the conduct of maintenance activities, and a more forceful disciplinary action posture, has had positive results in the maintenance and surveillance procedure compliance areas as evidenced by a reduction in personnel errors.

- Numerous management changes have been implemented in the Maintenance department with the objective of improved performance. Increased management involvement in plant activities has been accomplished by instituting changes within the mechanical maintenance supervision, by the addition of ten (10) exempt craft assistant work supervisors, the addition of three (3) middle line work control supervisors, the addition of three (3) maintenance engineering supervisors, and the addition of a plant safety engineer.

- An evaluation of ways to increase personnel performance factors led to the realization that the makeup of the labor force contract was not conducive to maximizing craft efficiency. A contract renegotiation was therefore undertaken to modify the makeup of the craft work units in respect to foremen. We now have a more direct path between management oversight and the individual work activities which yields better work control and improved efficiencies.

- The implementation of a 28 day cycle divisionalization of critical I&C surveillances to prevent working on both divisions at the same time is a preventive measure that will indirectly contribute to higher plant efficiencies.

- The emphasis for thorough problem understanding and root cause

analysis in the traditionally higher technically demanding areas is having a positive feedback and influence on the methods for maintenance and surveillance problem resolution. For example, a valve repacking program is currently underway based on needs identified through root cause assessment.

- The MWR and "plant problem" backlogs have been reduced; more importantly, the remaining backlog is highly visible through additional management reporting. A new expanded set of priorities for MWRs has been developed and incorporated into PPM 1.3.7, Maintenance Work Request, approved April 1989. Checking the validity and assigning new priorities to all open work requests is underway.

- Improved communication within the Maintenance department has been practiced to assure that management expectations in the various plant operational and safety areas are clearly communicated to technical and craft personnel alike.

- A more rigorous post maintenance testing program has been incorporated to provide higher confidence levels of trouble free operation of components and systems being brought back on line.

- A new Maintenance Training Programs which delineates the initial, continuing, and requalification requirements for all Maintenance personnel has been issued. Additionally, this program specifies training that is required to perform independent work on complex equipment. The plant and Training departments are conducting a complete task analysis on all maintenance jobs. This provides the foundation of all training that Maintenance personnel receive and provides a mechanism to insure training remains current with plant configuration.

- The increased attention and scrutiny to the quality of maintenance activities has been a contributor to increased plant performance. Inadvertent half scrams have been reduced and emphasis continues toward further improvements.

- The preparation of a "Maintenance Procedure Reviewer and Writer's Guide" and the application of its guidance has resulted in improved procedures which provide better direction to Maintenance staff, thus reducing errors.

- The Maintenance staff technical training program has been upgraded to include administrative controls and provisions for refresher training for journeymen.

- An On-the-Job-Training coordinator in each maintenance shop has been appointed to provide training opportunities and qualification for personnel and specific tasks requirements.

- Maintenance tasks important for the realization of improved plant performance and reliability were planned and scheduled for implementation during the current outage. The following tasks are being implemented:

- SW A/B cross-tie
- SM 78/85 logic
- Leak detection instrument replacement
- D/W hot spot removal
- RHR 53A valve replacement
- Feedwater heater level control change-out
- IN-1 inverter replacement
- Turbine supervisory instrument replacement
- MSIV overhaul
- RFW turbine inspection
- Turbine valve overhaul
- MSRV actuator rebuild
- MSRV replacement/seat rework
- CRD rebuild
- RRC discharge valve rework
- MS SRV vacuum breaker rework
- CSP/CEP valve seat replacement
- Condenser/heat exchanger tube inspection (NDE)
- Steam tunnel MOV grease changeout

The cumulative effect of the various implemented changes to the conduct of maintenance and surveillance activities has had a positive impact on the overall plant performance improvement. The aggressive effort to bring these changes "on line" within a relative short period has been challenging and we expect that long lasting and continuing benefits will be realized. A listing of maintenance commitments is shown in Appendix B.

EMERGENCY PREPAREDNESS

1988 SALP RECOMMENDATIONS:

Licensee management should ensure that additional emphasis is applied to the area of emergency preparedness and that appropriate levels of operations and health physics expertise are developed within the Emergency Planning staff.

The Emergency Planning staff is encouraged to closely monitor Emergency Plan implementation during significant events with the intent of assuring conservative implementation of the Emergency Plan. In addition, the Emergency Planning staff is encouraged to be more self-critical and be more proactive in its root cause determinations and corrective actions.

CURRENT STATUS

In November 1988 the Emergency Planning and Environmental Programs department was reorganized so that the Environmental Programs components were transferred to different departments. At that same time, the Emergency Training responsibility and associated staff were transferred from the Training organization to Emergency Planning and three additional staff members were added. These new resources provided operations/maintenance and health physics expertise and

clerical/secretarial support.

During 1988, the Supply System took action to remove some of the discretionary aspects of EPIP 13.1.1, Emergency Classification, and has promoted a conservative management philosophy regarding the threshold of classification. Since that time, there have been five unusual events declared due to technical specification shutdowns. This performance, together with an examination of the event details, clearly demonstrates there is no reluctance to declare an emergency event. We are continuing to work in this area so that in most cases more prescriptive guidance will be available to the Operations staff relative to the Technical Specification shutdowns that should and those that should not be unusual events.

In the area of root cause determination for emergency planning problems, we have taken the following actions:

- Corrective action reports are being restructured to include possible root cause elements and root cause analysis where it is justified. Additionally, corrective actions that are identified as emergency training issues have had brief informal root cause inquiries performed for over a year. After Action reports are prepared at the conclusion of each drill, exercise, and actual emergency event to identify areas where corrective actions may be needed. These reports are prepared by Emergency Planning personnel based on interviews of involved personnel and are reviewed by Plant management. Corrective actions are tracked by the Emergency Planning organization.

- Two Emergency Planning staff members have attended root cause analysis training.

- The Emergency staff is also closely monitoring daily reviews of significant plant activities to determine emergency planning implications.

Several other changes have been made in the emergency program to improve performance, they are:

- The number of scenarios conducted per year has been increased to three drills and one exercise. This provides substantial additional practical training to the Emergency Planning organization in their emergency positions.

  The first of these drills was held in February 1989 and was a Casualty Control Drill where there is emphasis on realism and the opportunity to free play to various success paths. Although quite complex, this format offers much more challenge to the emergency response organization. This is a format which INPO is encouraging utilities to adopt because of the realism which it affords. INPO representatives were in attendance at the February drill and provided valuable input to improve our ability to respond.

- A new paging system was purchased that can transmit alpha-numerical information as well as voice transmissions. A different

transmission frequency was selected for better reception and it has proven to be highly reliable and effective. We have also increased the number of assigned units to enhance notification and response time of the emergency organization.

- In order to improve the drill and exercise program, we have made long-term lead center controller assignments so that we can improve the management of scenario play. This will improve the quality of the drill/exercise and enhance its training value.

- Implementation of industry events reports to Emergency Response Training for in-plant response teams.

- Emergency organization refresher training that includes a table top review of scenario plan and active student involvement in reviewing appropriate response actions.

The status of Emergency Preparedness commitments is shown in Appendix B.

SECURITY PROGRAMS

1988 SALP RECOMMENDATIONS:

Licensee management is encouraged to continue their augmented support with particular attention to the subtle degradation of aging security hardware. The findings of the Regulatory Effectiveness Review at other nuclear sites should be evaluated for application at WNP-2.

CURRENT STATUS:

Security Programs, in concert with Plant Technical, has developed a five year security equipment upgrade plan. This upgrade begins with the purchase of three new x-ray machines in FY90. New COHU CCTV cameras with improved lenses have been purchased to replace selected aging fenceline cameras. A new security radio communication system has been installed and, as an additional benefit, provides security supervision with secure voice capability. Improved response equipment for the officers has also been purchased.

An in-house Regulatory Effectiveness Review (RER), as recommended by NRC Information Notice 88-41, has been conducted. As a result of this review, eight (8) issues were identified as requiring further evaluation through the plant Operating Experience Review (OER) Program. In addition, a review of select evaluations conducted at other nuclear power sites has been conducted for applicability at WNP-2. Staff members from Security Programs also witnessed the Palo Verde Nuclear Site RER as it was in progress. Information gained from the Palo Verde RER resulted in modifications to certain WNP-2 microwave zones to enhance our ability to detect penetration attempts.

In addition, the following enhancements to WNP-2 security have been implemented:

- Personnel search equipment has been configured to assure all hand carried packages pass through an explosive detector prior to required x-raying. X-ray machines have also been modified to direct packages on center line of the machine for improved detection capability.

- A revised plant access point has been designed to allow searching of employees prior to badging and to provide a larger search area and improved personnel and package control.

- Anti passback software has been implemented for protected area turnstiles.

- Implementation of 12 hour shift schedule for Security Force (increased morale factor).

- New Benton County Ordinance prohibiting firearms and alcoholic beverages within the WNP-2 Exclusion Area implemented March 15, 1989. Although Supply System policies have always prohibited the use of firearms and alcohol within the exclusion area and use has not been a problem, the Benton County Ordinance is viewed as an enhancement to our enforcement authority. Violation is a misdemeanor punishable by not more than 90 days imprisonment or a fine of not more than $1000 or both.

- New 75mm CCTV lenses have been installed on select cameras to improve clarity and maximum field of view.

- Metal shroud covers have been installed on all tower mounted CCTV cameras. Shroud covers protect the lens faceplate from cooling tower mist and help reduce sunrise/sunset whiteout conditions.

- A physical fitness incentive program has been established for security officers that provides monetary reward for improved physical fitness.

- Additional weapons training for Security Force increased number of officers classified in expert range from 50% to 72%.

- A job rotation program implemented within Security Programs designed to benefit individual career development and provide an avenue for exchanging new ideas and concepts within the organization.

- All Security Force supervisors have completed 40 hours of Supply System Quality Management Skills training.

- Additional response equipment has been repositioned at strategic positions within the protected area to accommodate a more rapid armed response team deployment.

- Security related logable events were reduced 49% due to increased maintenance attention and upgrade of security equipment.

ENGINEERING AND TECHNICAL SUPPORT

1988 SALP RECOMMENDATIONS:

Licensee management should ensure high levels of personal involvement and assessment in the engineering and technical area. In addition, the amount of direct managerial involvement should be increased. The future QA engineering assessment group should be used to look at the work of both the design engineers and the operations support engineers. Efforts to update the plant's design database and wiring diagram upgrades should be expedited. In addition, the engineering and technical staffs should become more familiar with the design database. Supply System management should assess the scope of engineering and technical work currently being performed and ensure that the workload is not greater than can be properly performed by the existing staff. Also, senior management should ensure that the improvement programs are carried to completion.

CURRENT STATUS:

The SALP Board recommendations in this functional area were very much in line with the goals of our in-house engineering improvement program and supported our internal considerations and planned actions. The Supply System self-initiated engineering improvement plan began early in 1988, and since then its elements and status have been presented to the NRC in two separate sessions (June 1988 and January 1989).

The variety and number of changes that have been implemented to date attest to our determination to deal with the issues deemed influential and necessary for excellent performance in the engineering and technical support functional areas. Twenty of the engineering improvement plan tasks have been completed. The most significant actions include: 1) the establishment of a modification review committee encompassing interdisciplinary and interdepartmental personnel (including Operations, Maintenance, Plant Technical, and Health Physics as appropriate) in the assessment of proposed plant design changes, and 2) restructured Engineering and Plant Technical Staff organizations that incorporated additional technical supervisory positions. These two changes have provided for more managerial and interorganizational involvement in the problem definition, resolution, and design change process. The environment that has been created has contributed to improved communications and teamwork between organizations, improved understanding of the problem being addressed, and thus better solutions to plant design problems. The changes that have been made to improve participation of the supervisor with a reduced span-of-control have provided improved guidance to the engineer and a more appropriate level of review over the work being performed.

Process improvements have strengthened management of engineering activities through the actions of our Procedure Advisory Committee and our Design Review Board. A new checking standard has been issued and some departmental specific activity checklists have been prepared and are being utilized to ensure attention to details. Technical and managerial responsibilities have been emphasized in engineering procedures. A more comprehensive design safety evaluation process has been implemented

through engineering standards. A revised training process has been put in place emphasizing the position of the supervisor and his responsibility for standardizing application of the procedures.

The recently created and independent Engineering Assurance organization (reporting directly to the Licensing and Assurance Director) is providing independent evaluation and oversight of both design and operations support engineering activities. Independent design reviews of seven R-4 modification packages are being conducted by the group, which is directing their efforts toward assuring quality is provided by the technical organization's activities. In addition, in-depth assessments of drawing control and our 50.59 safety evaluation process have been completed. This latest assessment resulted in the establishment of a senior level team consisting of Operations, Engineering, and Licensing and Assurance members to review improvements needed in all elements of our organization. This committee has identified five issues relative to our Design Safety Evaluation and the 50.59 process and has provided recommendations to resolve each issue. Corrective action is underway.

The availability of accurate technical information is another area that has been receiving considerable attention by both the NRC and industry. The Supply System is acutely aware of the issue and its implications to our design responsibilities. We, therefore, are continuing to pursue those elements and features that enhance the technical database information needed to support the Operations and Engineering staff. In specific response to the SALP Board recommendations in the database area, we have met our commitment to complete the upgrade of 267 QC-1 motor operated valve electrical wiring diagrams. We have also completed the draft on the second design basis document (on-site electrical distribution system) and in a separate effort completed our own SSFI type inspection on the plant LPCS system. These actions are not program plans or isolated one time programs, but instead represent actual results of an established and ongoing program that will continue to produce improvements to the plant's overall design database.

The workload on the Engineering and Technical organizations has been significant over the last year and continues to outpace the available resources. Accordingly, concentrated efforts to prioritize and schedule the necessary activities are taking place. The scoping of workloads for FY 90 (July 1, 1989 - June 30, 1990) plant modifications is ongoing to determine the manpower requirements. These actions in the management of our engineering and technical resources are being recognized as direct contributors to the realization of more effective Engineering and Technical support to the plant.

A complete status of the previously committed actions within the engineering and technical support functional areas is shown in Appendix B.

SAFETY ASSESSMENT/QUALITY VERIFICATION

## 1988 SALP RECOMMENDATIONS

Supply System management should focus attention on the recently defined program improvements to ensure that they are effectively carried to completion and achieve the desired results. Full implementation of the root cause assessment program should be expedited. Management should also participate more fully in the follow up of QA findings to ensure that these findings are being corrected in a timely fashion. Efforts need to be made to improve the timeliness of the Supply System's ability to track and close items identified for corrective action. Implementation of planned organizational and staffing improvements should continue. The licensee should strive to improve the quality and thoroughness of licensing submittals.

## CURRENT STATUS

Numerous management initiatives have been implemented during the past year in the safety assessment/quality verification areas which have contributed to improvement in the overall operational safety performance of WNP-2. Specific descriptions of these initiatives and implementation results were discussed in meetings with the Region V NRC and NRR staffs on June 7, 1988, and January 5, 1989. The current status of some of the more significant activities is listed below:

- Quality Improvement - The Supply System has embarked on a significant effort to enhance the overall quality of work performance at all levels in the organization. This is a long-term effort to instill a cultural attitude in our organization which encourages quality workmanship and constant improvement. As part of this effort, a training program entitled "Quality Management Skills" was completed between October 1988 and February 1989 for all managers and supervisors.

- Improved Root Cause Assessment - Implementation of an improved problem reporting/corrective action process was expedited consistent with the 1988 SALP recommendations. A dedicated Root Cause Assessment group was established in August 1988 and all program improvements (including training of 33 additional staff) were completed by December 1988.

  The table below indicates the numbers of formal WNP-2 event assessment analyses that have been initiated since August 1988:

| | Root Cause Assess. Initiated | Completed |
|---|---|---|
| Phase I (8/88 to 12/88) | 30 | 28* |
| Phase II (1/89 to 5/8/89) | 100 | 24 |
| Notice of Violations | 4 | 4 |

*The two incomplete RCAs from Phase I are major hardware failures that require either an outage or additional engineering analysis to complete.

Corrective actions identified by these assessments are tracked to ensure timely follow up.

In general, the program improvements have resulted in increased management attention to problems and problem resolution, more systematic assessments of problem causes, more timely corrective actions, and decreased probability of event recurrence.

- Engineering Assurance Improvements - The Engineering Assurance organization within Licensing and Assurance was established and staffed by August 1988. This group provides independent quality oversight of technical areas, thus improving our ability to identify and correct problems. The group is staffed with highly qualified and experienced engineers (including several individuals with significant engineering management experience). Results to date include a high quality SSFI on the Low Pressure Core Spray (LPCS) system, planning and partial completion of an internal SSOMI inspection, improved 10CFR50.59 safety review processes, and improvements to the plant configuration control processes. Efforts of this group, coupled with steps being taken by Engineering, are significantly improving the quality of WNP-2 engineering/technical products.

- Safety and QA Staffing - Based on detailed functional and staffing needs assessments performed by the Director of Licensing and Assurance, the total budget for permanent staffing for the Licensing and Assurance Directorate was increased by nine persons in fiscal year 1990 (July 1989 to June 1990). Technical capabilities of the Safety/QA staffs has been significantly improved by a combination of organization enhancements, rotational assignments, and external hiring. Technical capabilities have been increased in the area of engineering, operations, and statistics.

  Staffing support has also been increased in the Plant Technical staff to support compliance related activities such as preparation of NOV responses, resolving NRC open items, preparation of Licensee Event Reports (LERs), and processing plant nonconformance reports. The original group has been reorganized to separate the compliance function and the reactor systems function. The compliance group now includes a staff of six individuals. Additionally, the Licensing group reviews all NOV responses and LERs and supports the compliance functions as required.

- Effectiveness Assessment/Corrective Action Follow Up - A management commitment tracking system for SALP, INPO, and other high level issues was implemented and has been functioning since October 1988. The status of commitments is reviewed monthly at a regular meeting of the Supply System senior managers and quarterly by the Executive Board of Directors.

Commitment completion is documented, tracked, and validated by independent assessment (on a sampling basis). Additionally, a program has been implemented to assess whether completed commitments have been effective in achieving the expected results.

Appendix B lists all the commitments and the status of each that were identified following the 1988 SALP report.

- Review of Industry Experiences - A significant effort (approximately 23 man-years) has been undertaken since August 1988 to improve the programs for reviewing industry experience events and implementing plant specific corrective measures identified by these reviews. Particular emphasis has been directed at reducing the backlog of action items awaiting implementation and to improve the timeliness of the actions intended to prevent recurrence of similar problems at WNP-2. The backlog of actions awaiting implementation has been reduced significantly with the average age of items in the backlog being reduced by about 16 months. The added manpower and outside services resources in this area have been effective at improving the timeliness of responding to industry precursors, thus reducing the probability of similar events which could challenge WNP-2 operational performance or safety.

- Communication of Safety/Quality Problems to Management - Several initiatives have been implemented to improve the effectiveness of our quality groups at consolidating inspection data into meaningful messages for management action and of communicating these messages to line management.

  The problem report and cause trending programs have been substantially overhauled to improve data integrity and to incorporate technically valid statistical principles.

  A new monthly report which highlights significant concerns for management action has been provided to the Managing Director and other senior management since September 1988. Monthly meetings with the Director of Engineering, Assistant Managing Director for Operations, and the WNP-2 Plant Manager are held to discuss quality issues and topics identified in the monthly report. These meetings are expanded to include attendance by the Managing Director on a quarterly basis.

  A briefing on the results of every major Quality Audit or Safety Assessment is provided to the Managing Director. Other senior managers are included as appropriate.

  The overall results of these and other communication improvement efforts are enhanced understanding of quality program results by responsible managers, improved corrective action follow up, more timely identification of major issues, and feedback which improves the quality verification and safety assessment programs.

- Strengthen the Role of WNP-2 Licensing Group - The WNP-2 Licensing group was strengthened resulting in improved technical input into licensing submittals, Notice of Violation (NOV) responses, and Licensee Event Reports (LERs). A stronger safety focus has been the emphasis of the group, thus increasing our assurance that WNP-2 is operated within its licensing basis and that NRC submittals are technically complete and accurate.

- Procurement Quality Assurance - Several initiatives have been implemented to improve our procurement quality assurance programs. Specifically, organizational roles have been clarified and staff levels in this area have been increased significantly. Additional effort is being applied to vendor surveillances/inspections and to receipt inspections of procured components and materials. Additional testing equipment has been or is being purchased to increase the effectiveness of receipt inspection.

- Performance-Based Inspections - Training sessions were provided to nearly all QA engineers and auditors during August 1988 in the techniques of performance oriented inspections. The training was provided by the same organization that trains NRC inspectors. Performance-based methods have been stressed by QA and Safety management and results of our surveillances, audits, and assessments show increased use of this approach.

- Follow Up of Audit/Inspection Findings - Increased emphasis has been placed on thorough and timely follow up of safety and quality findings. A single improved system for issuing Quality Finding Reports (QFRs) was implemented on January 1, 1989. The system standardizes the categorization of findings among the QA and Safety groups and sets formalized guidelines for follow up and escalation to management if satisfactory responses to findings are not provided. In general, the system provides increased flexibility to QA inspectors to make performance-based or improvement-oriented findings while strengthening the requirement for timely resolution and follow up.

- Corporate Nuclear Safety Review Board (CNSRB) - Corporate Nuclear Safety Review Board (CNSRB) membership changes have been made to provide this organization with stronger operational and technical capability. Specifically, changes were made to provide more practical experience in the outside membership.

In summary, increased management attention is being directed to the areas of Safety Assessment/Quality Verification to assure that the programs which have been initiated are carried to completion and that the desired results are achieved. Management involvement in problem resolution, personal accountability, and follow up on commitments is being stressed at all levels as a central part of our improvement programs.

# APPENDIX B

# SALP COMMITMENT STATUS

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : MANAGEMENT | |
| CONDUCT BI-MONTHLY RALLIES WITH ALL OPERATIONS EMPLOYEES TO REVIEW PLANT STATUS, ISSUES AND RESOLUTIONS | 89/04/10 (Oxsen) Operations employee meetings held 12/88 & 3/89. Next meeting scheduled for after R4 outage 6/89. |
| CONDUCT QUARTERLY MEETINGS WITH ALL MANAGERS AND SUPERVISORS | 89/04/10 (Mazur) COMPLETE. Quarterly mgr/supv meetings have been held 8/88, 12/88 & 3/89. Direction given to have Directors conduct future manager /supervisor meetings. |
| INITIATE MONTHLY SENIOR MANAGEMENT STAFF MEETINGS TO DEAL SOLELY WITH SIGNIFICANT ISSUES | 89/01/17 (Mazur) COMPLETE. Full day Issue & Problem Meetings are being held monthly with first meeting 8/88 - and each month since. Schedule for meetings in 1989 has been established. |
| ASSIGN RESPONSIBILITIES AND RESOLUTION OF PROBLEMS AT THE PROPER ORGANIZATION LEVEL. | 89/01/18 (Mazur) COMPLETE. Eleven major projects have been assigned primary and support responsibility. The list has been published and status will be reviewed monthly at Issue & Problem Meetings. |
| IMPROVE PLANT TRACKING LOG (PTL) EFFECTIVENESS BY PROVIDING PLANT MANAGERS AND SUPERVISORS THE LIST OF OPEN ITEMS ON A WEEKLY BASIS TO ENSURE REVIEW AND TIMELY COMPLETION OF ASSIGNED ACTIONS. | 89/04/10 (Baker) COMPLETE. PTL issues a "Late Report" and 30/60/90 day look-ahead reports on a monthly basis. These reports are sorted by document and responsible supervisor. The process is functional in tracking open plant items.. |
| IMPROVE PLANT TRACKING LOG (PTL) EFFECTIVENESS BY CREATING A PTL TASK FORCE TO CERTIFY, PRIORITIZE AND ESTABLISH SCHEDULES FOR OPEN ITEMS. | 89/04/10 (Baker) COMPLETE. Upgraded PTL data base achieved by increased involvement of plant mgrs/suprvs rather than task force. PTL reports issued monthly to responsible mgrs/suprvs. Periodic update meetings are sched to review backlog. |
| PROVIDE STATUSING OF SUPPLY SYSTEM MAJOR COMMITMENTS TO THE EXECUTIVE BOARD ON A QUARTERLY BASIS | 89/04/10 (Oxsen) Statusing meetings held 11/88 & 2/89. Executive Board provided feedback on sample review of completed commitment status, 3/29/89. Next quarterly update scheduled for May 89. |
| PLANT OPERATIONS MANAGER WILL OBSERVE AND EVALUATE THE CREW SIMULATOR TRAINING ON A WEEKLY BASIS. | 89/04/10 (Shaeffer) COMPLETE. The WNP-2 Observation Evaluation System Program is in place which outlines plant management's required participation in training reviews and observations. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| OPERATIONS MANAGEMENT WILL CONDUCT WEEKLY ONE-ON-ONE MEETINGS WITH THE DUTY SHIFT MANAGER FOLLOWED BY A FULL CREW MEETING. | 89/04/14 (Shaeffer) COMPLETE. The process has been established as a routine program. |
| SENIOR MANAGEMENT WILL OBSERVE AND EVALUATE CREW SIMULATOR TRAINING SESSIONS ON A REGULAR BASIS. | 89/02/15 (Baker) COMPLETE. WNP-2 Observation Evaluation System Program is in place outlining plant senior management's required participation in training reviews and observations. |
| IMPLEMENT AN AGGRESSIVE PEER REVIEW PROCESS FOR OPERATIONAL EVENTS. | 89/04/10 (Shaeffer) COMPLETE. PPM 1.3.48, Root Cause Analysis, is utilized to perform peer reviews following significant operational events as determined by senior plant management. |
| DEVELOP AND IMPLEMENT A PLANT DISCIPLINARY POLICY REGARDING PROCEDURE COMPLIANCE IN OPERATIONS | 89/01/17 (McKay) COMPLETE. Policy regarding procedure compliance included in Rev. 15 of PPM 1.3.1 approved 1/10/89 (Same as 80029 Maint). |
| ESTABLISH A COMPREHENSIVE TRACKING SYSTEM FOR MANAGEMENT COMMITMENTS ASSOCIATED WITH SALP AND MAJOR INPO EVALUATIONS. ASSURE COMMITMENTS ARE PERIODICALLY STATUSED AND REVIEWED BY MANAGEMENT. | 88/11/14 (Oxsen) COMPLETE. Mgmt tracking system for SALP/INPO commitments in place. Statusing to Executive Board 11/88 & 2/89. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : OPERATIONS | |
| EXPAND THE OPERATIONS PROCEDURES GROUP. | 89/01/17 (McKay) COMPLETE. Initial assignment of operators complete. |
| ESTABLISH A PERMANENT "CLEARANCE ORDER" REVIEW GROUP. | 89/01/17 (Mckay) COMPLETE. Review Group established. (Same as 88025) |
| STRENGTHEN OPERATIONS/TRAINING BY ROTATING A SHIFT MANAGER INTO LICENSED OPERATOR TRAINING POSITION | 89/01/17 (McKay) COMPLETE. Position filled. |
| UPGRADE PLANT OPERATING PROCEDURES IN TECHNICAL ACCURACY AND CONSISTENCY IN PHILOSOPHY AND FORMAT. | 89/04/14 (Shaeffer) Upgrade of Plant Operating Procedures 69% complete. Scheduled completion 9/90. |
| DEVELOPMENT AND IMPLEMENT A PLANT TROUBLE SHOOTING PROCEDURE | 89/01/17 (McKay) COMPLETE. Rev. 1 of PPM 1.3.42 "Trouble Shooting Plant Systems & Equipment" approved 12/1/88. |
| DEVELOP AND IMPLEMENT A FORMAL CONDUCT OF OPERATION PROCEDURE. | 89/01/17 (McKay) COMPLETE. Rev. 15 of PPM 1.3.1 approved 1/10/89. |
| DEVELOP AND IMPLEMENT A CLEARANCE ORDER/TAGGING PROCEDURE TO ADDRESS SEQUENCING OF EQUIP MANIPULATIONS, RESPONSIBILITIES OF MGMT, AUDITS AND INDEPENDENT VERIFICATIONS | 89/04/14 (Shaffer) COMPLETE. Items listed are included in Rev. 11 of PPM 1.3.8. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : MAINTENANCE | |
| STRENGTHEN MANAGEMENT INVOLVEMENT IN PLANT ACTIVITIES THROUGH CHANGES IN MECHANICAL MAINTENANCE SUPERVISION. | 89/01/18 (Harmon) COMPLETE. Management changes complete. |
| STRENTHEN MANAGEMENT INVOLVEMENT IN PLANT ACTIVITIES BY ADDING TEN EXEMPT CRAFT ASSISTANT WORK SUPERVISORY POSITIONS. | 89/01/18 (Harmon) COMPLETE. Positions filled. |
| STRENGTHEN MANAGEMENT INVOLVEMENT IN PLANT ACTIVITIES BY ADDING THREE MIDDLE LINE WORK CONTROL SUPERVISORS. | 89/03/15 (Harmon) COMPLETE. Selections made and personnel on-board. |
| STRENGTHEN INVOLVEMENT IN PLANT ACTIVITIES BY ADDING THREE MAINTENANCE ENGINEERING SUPERVISOR POSITIONS. | 89/03/15 (Harmon) COMPLETE. Selections made and personnel on-board . |
| STRENGTHEN MANAGEMENT INVOLVEMENT IN PLANT ACTIVITIES BY ADDING A PLANT SAFETY AND MATERIAL CONDITION ENGINEER. | 89/01/18 (Harmon) COMPLETE. Position filled. |
| ESTABLISH A STRONG POST-MODIFICATION MAINTENANCE TESTING PROGRAM TO MINIMIZE PERSONNEL ERROR. | 89/04/10 (Koenigs) COMPLETE. Design, Technical & Maintenance responsibilities are outlined in Post Maint/Mod Testing PPM 1,5,7, Rev. 2. |
| REVISE THE LIFTED LEAD/JUMPER PROCEDURE TO MINIMIZE PERSONNEL ERROR. | 89/04/14 (Koenigs) Process was revised to include the 10CFR50.59 questions from PPM 1.3.43. A QA assessment is underway to compare the WNP-2 lifted lead/jumper program with INPO Guideline 85-031 |
| ESTABLISH A SEPARATE REVIEW TEAM FOR INDEPENDENT REVIEW OF CLEARANCE ORDER TO MINIMIZE PERSONNEL ERROR. | 89/01/17 (McKay) COMPLETE. Review Group established. (Same as 88007) |
| COMPLETE DIVISIONAL SEPARATION OF ALL REACTOR PROTECTION AND NUCLEAR STEAM SUPPLY SHUTOFF SYSTEM SURVEILLANCE CHANNELS TO MINIMIZE PERSONNEL ERROR. | 89/01/18 (Harmon) COMPLETE. Task completed. |
| IMPLEMENT A 28-DAY CYCLE FOR SURVEILLANCE TESTING TO MINIMIZE PERSONNEL ERRORS. | 89/03/15 (Harmon) COMPLETE. All 31-day surveillances have been implemented. Annual and 18-month surveillances to be reviewed prior to their due dates. |
| COMPLETE A WRITERS AND REVIEWERS GUIDE FOR MAINTENANCE PROCEDURES TO MINIMIZE PERSONNEL ERRORS. | 89/01/18 (Harmon) COMPLETE. The Writers and Reviewers Guide has been reviewed and issued. At this time, it is viewed as a guideline and not a procedure therefore it does not require POC review. |
| ENFORCE PLANT DISCIPLINARY POLICY FOR LACK OF PERFORMANCE AND/OR PROCEDURE COMPLIANCE TO MINIMIZE PERSONNEL ERROR. | 89/04/10 (Baker) COMPLETE. All significant personnel errors are evaluated on a routine basis for discipline per the peer review process. Discipline actions on going as appropriate per NOS-17. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ESTABLISH CONTROLS FOR THE MWR PROCESS TO LIMIT THE TIME THAT A VITAL MWR CAN REMAIN OPEN. | 89/01/18 (Harmon) COMPLETE. Implemented through deviation of PPM 1.3.7. |
| ESTABLISH CONTROLS TO THE MWR PROCESS FOR STRICTER LIMITATIONS ON USE OF VITAL MWRS. | 89/01/18 (Harmon) COMPLETE. Implemented through deviaiton of PPM 1.3.7. |
| ESTABLISH CONTROLS TO THE MWR PROCESS FOR INCREASED MANAGEMENT AWARENESS OF OPEN VITAL MWRS. | 89/01/18 (Harmon) COMPLETE. Implemented through deviation of PPM 1.3.7. |
| ESTABLISH CONTROLS FOR THE MWR PROCESS TO REQUIRE INCREASED REVIEW OF PLANNED WORK ACTIVITIY. | 89/04/10 (Harmon) PPM 1.3.7 has been revised and is out for comment. Procedure scheduled for POC on 4/5/89. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : ENGINEERING AND TECHNICAL SUPPORT<br>ESTABLISH PLANT MODIFICATION REVIEW COMMITTEES (MRC) TO ASSURE PROACTIVE INVOLVEMENT BY TECHNICAL AND ENGINEERING STAFFS ON PLANT PROBLEMS AND INTER-ORGANIZATIONAL COMMUNICATIONS. | 89/01/17 (Harrold) COMPLETE. Modification Review Committee (MRC) process in place and ongoing. |
| CREATE TWELVE(12) SUPERVISORY POSITIONS TO REDUCE SPAN OF CONTROL IN ORDER TO IMPROVE TECHNICAL DIRECTION, INCREASE MANAGEMENT INVOLVEMENT, AND ASSESSMENT OF PERFORMANCE. | 89/01/17 (Harrold) COMPLETE. Restructured Engineering discipline departments to accommodate twelve (12) supervisory positions in 9/88. |
| ESTABLISH AN ENGINEERING ASSURANCE ORGANIZATION AT WNP-2 SITE TO ASSURE PROACTIVE INVOLVEMENT BY PLANT TECH AND ENGR STAFF ON PLANT PROBLEMS AND INTER-ORGANIZATIONAL COMMUNICATIONS. | 89/01/17 (Bouchey) COMPLETE. Staffing of Engineering Assurance organization complete 7/88. Organization relocated to WNP-2 site 9/88 (Same as SALP 88053 QA). |
| IMPROVE THE DESIGN DATA BASE BY COMPLETING THE DESIGN BASIS DOCUMENT FOR THE ON-SITE AC ELECTRICAL DISTRIBUTION SYSTEM | 89/04/10 (Harrold) On-site AC distribution design basis document issued 4/3/89 for design review and verification. |
| IMPROVE THE DESIGN DATA BASE BY COMPLETING THE UPGRADE OF QC-1 MOTOR OPERATED VALVE ELECTRICAL WIRING DIAGRAMS. | 89/01/16 (Harrold) COMPLETE. Motor operated valve electrical diagrams upgraded. |
| IMPROVE THE DESIGN DATA BASE BY ESTABLISHING THE MAGNITUDE OF ENGINEERING REQUIRED TO UPGRADE THE PLANT SYSTEM ELECTRICAL WIRING DIAGRAMS. | 89/01/17 (Harrold) COMPLETE. Plan issued 12/88 (SS2-PE-88-1206). |
| IMPROVE THE DESIGN DATA BASE BY COMPLETING A COMPUTERIZED DATA BASE FOR ALL PENETRATION SEALS, AND EXPANSION OF THE COMPUTERIZED CABLE AND RACEWAY SCHEDULE CAPABILITIES. | 89/03/15 (Harrold) Work on-going per schedule. |
| IMPROVE THE DESIGN DATA BASE BY INCREASING THE UTILIZATION OF COMPUTERS TO ACCESS THE PLANT DATA BASE AND INCREASING THE USE OF COMPUTER AIDED DESIGN. | 89/04/10 (Harrold) FY-90 program defined. Computer hardware and software requirements issued to Corporate Information Services (89-JPB-053, 4/11/89). |
| IMPROVE THE DESIGN DATA BASE BY USING ENGINEERING AND OPERATIONS STAFF TO PERFORM AN SSFI ON LOW PRESSURE CORE SPRAY SYSTEM (LPCS) INCLUDING REVIEW OF THE LPCS DESIGN BASES DOCUMENTS. | 89/01/17 (Grumme) COMPLETE. The SSFI on LPCS was completed in 12/88 and report issued to Supply System management for disposition of observations. A copy of the report was provided to NRC in 1/89. |
| IMPROVE THE DESIGN DATA BASE BY DEVELOPING A TRAINING PLAN TO UPGRADE ENGINEERING STAFF CAPABILITY. | 89/04/10 (Harrold) Recent training completed by Engineering staff includes QMS, Communications seminars, QC training and Team Building Sessions. Continued training includes QMS Phase II & III. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| IMPROVE THE DESIGN DATA BASE BY EVALUATING THE DESIGN DATA BASE STRUCTURE AND PROVIDING A PLAN FOR SIMPLIFYING ITS USE. | 89/04/10 (Harrold) Work curtailed by budget constraints until after R-4 Outage. |
| SENIOR MANAGEMENT WILL REVIEW OF ENGINEERING IMPROVEMENT PLAN PROGESS QUARTERLY. | 89/04/10 (Mazur) COMPLETE. Reviews held 11/88 and 2/89. Item considered part of permanent agenda for Engineering Directorate quarterly review meetings. |
| REVIEW R-4 OUTAGE AND FY-89 NON-OUTAGE PLANT MODIFICATIONS AND REPRIORITIZE CONSISTENT WITH ORGANIZATION CAPABILITIES. | 89/01/18 (Koenigs) COMPLETE. Technical Staff action on scoping workload within manpower and resource capabilities complete. This is an interactive process between Gen. Eng & Plant Tech Dept staff. |
| INTEGRATE DESIGN SCHEDULES WITH OVERALL PLANT MODIFICATION PROCESS THROUGH USE OF COMMON SCHEDULING PROGRAM | 89/01/17 (Harrold) COMPLETE. Engineering currently using Plant Project 2 Program for R-4 outage and non-outage planning and scheduling |
| COMPLETE SCHEDULING OF ALL R-4 OUTAGE AND FY-89 NON-OUTAGE ENGINEERING DESIGN CHANGES. | 89/02/15 (Harrold) COMPLETE. R4 outage & FY-89 non-outage design changes have been scheduled. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : QUALITY ASSURANCE | |
| UPGRADE CORPORATE NUCLEAR SAFETY REVIEW BOARD (CNSRB) WITH ADDITIONAL EXPERTISE | 89/01/17 (Bouchey) COMPLETE. Membership changes have provided this Board with stronger operation and technical capabilities. |
| ESTABLISH AN ENGINEERING ASSURANCE ORGANIZATION TO PROVIDE INDEPENDENT QUALITY OVERSIGHT OF TECHNICAL AREAS. | 89/01/17 (Bouchey) COMPLETE. Staffing of Engineering Assurance organization complete 7/88. Organization relocated to WNP-2 site 9/88. (Same as SALP 88039 Engr.) |
| TRAINING QUALITY ASSURANCE STAFF AND SUPPLY SYSTEM MANAGEMENT ON PERFORMANCE BASED INSPECTIONS. | 89/01/17 (Bouchey) COMPLETE. Training session on performance based inspections were held in September 88 for QA staff. |
| ESTABLISH A ROOT CAUSE ANALYSIS ORGANIZATION AND CONDUCT TRAINING IN ROOT CAUSE ANALYSIS METHODS | 89/01/17 (Bouchey) COMPLETE. An Independent Root Cause Analysis group was established 8/88. Training complete for 33 employees 11/88. |
| EVALUATE STAFFING LEVELS AND CAPABILITIES WITHIN LICENSING AND ASSURANCE | 89/04/10 (Bouchey) COMPLETE. Internal evaluation by organizational Analysis Corp. completed in Dec. 1988 and utilized as a basis for increased staffing of nine (9) permanent positions in FY-90. |
| IMPROVE THE TRACKING AND STATUSING OF "OPEN" PLANT TECHNICAL COMMITMENTS, BY ASSIGNING ADDITIONAL STAFF FOR COMPLIANCE FUNCTION. | 89/01/18 (Koenigs) COMPLETE. The original department was reorganized to separate the compliance function and reactor systems function. The compliance group now includes a supervisor, four engineers, a matrixed Generation Aide and a Clerk. |
| IMPROVE THE TRACKING AND STATUSING OF PLANT TECH COMMITMENTS BY UPDATING STATUS OF INTERNAL/EXTERNAL COMMITMENTS AND PROVIDING PERIODIC REPORTS. | 89/04/15 (Koenigs) COMPLETE. Overdue and 4-weeklook-ahead list of commitments and PERs is prepared and distributed to department managers on a monthly basis. This has been initiated & will continue as needed to assist Dept Mgrs in tracking commitments. |
| IMPROVE THE TRACKING AND STATUSING OF OPEN SALP/INPO COMMITMENTS BY VERIFYING CLOSEOUT OF COMMITMENTS. | 89/04/10 (Bouchey) COMPLETE. Mgmt Commitment Closure/Effectiveness Plan outlines process for tracking SALP/INPO commitments, verifying closure & assessing effectiveness of actions taken. Reviews in monthly Issues & Problems meetings. |
| IMPROVE THE TRACKING AND STATUSING OF "OPEN" PLANT TECH COMMITMENTS BY MONITORING THE COMPLIANCE STAFF WORK LOADS TO ENSURE SUPPORT OF LER/NOV RESPONSE PREPARATION. | 89/04/10 (Koenigs) COMPLETE. Current workload and status of commitments requiring support from the Compliance Staff are outlined in a weekly report which is reviewed by management. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| IMPROVE THE TRACKING AND STATUSING OF OPEN COMMITMENTS BY ADJUSTING CLERICAL RESOURCES TO ALLOWING ENGINEERING PERSONNEL TO MONITOR OPEN ITEMS. | 89/02/15 (Baker) COMPLETE. Evaluation of resources complete as part of FY-90 budget process. Additional manpower to work off backlogs will be evaluated by Senior Management as required. |
| ASSURE THAT COMMITMENTS/RESPONSES TO THE SALP REPORT ADDRESSES ALL ITEMS OF CONCERN IDENTIFIED IN EACH FUNCTIONAL AREA. | 88/11/14 (Bouchey) COMPLETE. Letter GO2-88-199 9/17/88, GO2-88-225 11/1/88 |
| ESTABLISH A PROGRAM TO ASSESS THE EFFECTIVENESS OF THE ACTIONS TAKEN TO CLOSE OUT THE SALP/INPO COMMITMENTS. | 89/04/10 (Bouchey) COMPLETE. Management Commitment Closure/Effectiveness Plan, approved 3/88, outlines process for tracking SALP/INPO commits, verifying closure & assessing effectiveness of actions taken. Reviewed in Issues & Problems meeting monthly. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : TRAINING AND QUALIFICATION | |
| REQUEST TO.EXECUTIVE BOARD FOR NEW SIMULATOR | 89/01/16 (Larkin) COMPLETE. Selection complete and Westinghouse notified to proceed 12/88. Contract documents being conformed for execution 01/89. |
| INCLUDE ADMINISTRATIVE CONTROLS TRAINING MODULE PRESENTATION IN MAINTENANCE PERSONNEL QUARTERLY TRAINING SESSIONS | 89/03/15 (Webring) COMPLETE. Module on administrative controls included in maintenance training. |
| UPGRADE TRAINING PROGRAM FOR JOURNEYMEN TO INCLUDE CRITERIA AND FREQUENCY SPECIFIC FOR EACH CRAFT DISCIPLINE | 89/04/10 (Gorlick) COMPLETE. Three new maintenance training programs outlined in TTM 5.15, Maintenance Training Program Description, have been approved for implementation by WNP-2 Plant management, 4/89. |
| WHILE RESTRUCTURING MAINTENANCE TRAINING PROGRAM, PROVIDE SPECIFIC TRAINING IN INDIVIDUAL SHOP MEETINGS. | 89/03/15 (Webring) COMPLETE. In addition to implementing administrative controls training, maintenance management will continue to provide the necessary training on new critical procedures in individual shop meetings. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : RADIOLOGICAL PROTECTION | |
| INCREASE PLANT SURVEILLANCE BY HP PERSONNEL AND ALL STATION SUPERVISORS TO MONITOR AND CORRECT POOR HP PRACTICES. | 89/04/14 (Powers) COMPLETE. Additional HP Supervisor added. PPM 1.3.19 revised to reflect HP practices. HP supervisor tours on going. GET/Supervisor training course revised. |
| PROVIDE ADDITIONAL EMPHASIS ON BASIC ASPECTS OF RADIOLOGICAL CONTROL PROGRAM TO ASSURE FULL IMPLEMENTATION | 89/04/10 - (Graybeal) A training module on radiation protection issues has been prepared for use by supervisors in safety meetings. All targeted personnel to receive training prior to R-4 Refueling outage. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : EMERGENCY PREPAREDNESS | |
| IMPROVE EMERGENCY DRILLS BY ESTABLISHING A PERMANENT SCENARIO DEVELOPMENT TEAM INCLUDING QUALIFIED EXPERTISE. | 89/04/10 (Chitwood) Two additional full time Emergency Planners were assigned to the Scenario Development Group in 11/88. However, committed engineering expertise is required to bring the scenario team to full strength. |
| IMPROVE HANDS-ON EMERGENCY TRAINING BY INCREASING THE NUMBER OF COORDINATION DRILLS TO THREE(3) PER YEAR | 89/01/17 (Chitwood) COMPLETE. Three coordination drills and one exercise are scheduled for CY89. The first drill was conducted in 2/89. |
| MONITOR EMERGENCY PLAN IMPLEMENTATION DURING DRILLS, EXERCISES AND EVENTS TO ENSURE CONSERVATIVE IMPLEMENTATION. | 89/04/10. (Chitwood) Reviewing emergency classification procedure to provide clearer criteria on conservative guidance regarding Unusual Event Classification. |
| IMPROVE ROOT CAUSE ANALYSIS AND DETERMINATION OF CORRECTIVE ACTIONS AND REVIEW OF EMERGENCY PLANNING PROCESS. | 89/02/15 (Chitwood) COMPLETE. Two members of Emergency Staff have received root cause analysis training and are incorporating analysis into correcting problem areas. Additional members of the staff will be trained as classes offered. |

1988 NRC SALP STATUS REPORT

| 1988 NRC SALP ACTIONS | STATUS |
|---|---|
| ** MAJOR CATEGORY : SECURITY | |
| DEVELOP AND IMPLEMENT A COMPREHENSIVE PROGRAM FOR LONG RANGE UPGRADE OF AGING SECURITY EQUIPMENT. | 89/04/10 (Telander) Long range security system upgrade plan is in draft. As per plant technical, approval expected May 89. |
| EVALUATE THE SECURITY FINDINGS OF THE REGULATORY EFFECTIVENESS REVIEWS OF OTHER NUCLEAR SITES FOR APPLICATION AT WNP-2 | 89/02/06 (Telander) COMPLETE. Regulatory effectiveness review (RER) as recommended by NRCIN 88-47 has been completed and eight oper. exp (OR) forms issued. |