ENCLOSURE 1

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

FINAL SALP REPORT

50-244/89-99

ROCHESTER GAS AND ELECTRIC CORPORATION (RG&E)

R. E. GINNA NUCLEAR POWER PLANT

ASSESSMENT PERIOD: JUNE 1, 1989 - SEPTEMBER 30, 1990

BOARD MEETING: OCTOBER 3, 1990

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SUPPORTING DATA AND SUMMARIES

I. INTRODUCTION

The Systematic Assessment of Licensee Performance (SALP) program is an integrated NRC staff effort to periodically collect observations and data, and to evaluate licensee performance. SALPs supplement the regulatory processes which assess compliance with NRC requirements. Each SALP is intended to be diagnostic enough to provide a rational basis for allocating NRC resources and to provide meaningful feedback to licensee management on the quality and safety of plant operation.

An NRC SALP Board met on October 3, 1990 to assess licensee safety performance at the R. E. Ginna Nuclear Power Plant for the period June 1, 1989 through September 30, 1990. The SALP was performed in accordance with NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance." Associated guidance and criteria are summarized in Section F in the Supporting Data of this report. The SALP Board was composed of:

Board Chairman

C. Hehl	Director, Division of Reactor Projects (DRP)

Board Members

W. Hodges	Director, Division of Reactor Safety (DRS)
M. Knapp	Director, Division of Radiation Safety and Safeguards (DRSS)
J. Johnson	Chief, Projects Branch No. 3, DRP
E. McCabe	Chief, Reactor Projects Section 3B, DRP
T. Moslak	Senior Resident Inspector
B. Boger	Assistant Director for Region I Reactors, Office of Nuclear Reactor Regulation (NRR)
A. Johnson	Project Manager, Project Directorate I-3, NRR

Other Attendees

C. Amato	Emergency Preparedness Specialist, DRSS
W. Baunack	Senior Reactor engineer, DRS
J. Carrasco	Reactor Engineer, DRS
J. Furia	Radiation Specialist, DRSS
H. Gregg	Senior Reactor Engineer, DRS
R. Keimig	Chief, Safeguards Section, DRSS
W. Pasciak	Chief, Facilities Radiation Protection Section, DRSS
N. Perry	Resident Inspector
P. Sena	Reactor Engineer, DRP

II. SUMMARY OF RESULTS

II.A. Summary

Functional Area	12/87-5/89	5/89-9/90	Trend
A. Plant Operations	2	2	
B. Radiological Controls	2	2	
C. Maintenance/Surveillance	2	2	Improving
D. Emergency Preparedness (EP)	1	1	
E. Security	2	2	Improving
F. Engineering/Technical Support	2	2	
G. Safety Assessment/Quality Verification	2	2	

II.B. Overview

This SALP found overall safe and conservative performance with general improvements in staffing, training, procedure adherence, and housekeeping. Corporate management involvement and onsite presence were evident. SALP area summaries follow.

A. Operations: The plant was operated competently. Transients were handled effectively. Operator requalification program problems identified early in the period were corrected. Emergency operating procedure quality and use were excellent. Procedure adherence and housekeeping improved.

B. Radiological Controls: Radiation exposures were significantly reduced. There was improved response to radiation control problems. Radiation control staffing and training were adequate; vacancies need addressal. Environmental monitoring procedural controls and training were adequate.

C. Maintenance/Surveillance: Maintenance and surveillance were well-planned and capably performed. Procedure upgrading and initial reliability centered maintenance benefits were positive. Procedure adherence and independent verification of system alignments were improving.

D. Emergency Preparedness: EP remained excellent. There was noteworthy management involvement, a well-qualified staff, good training, excellent exercise performance, and a good relationship with the State and surrounding counties.

E. Security: Improvements included equipment upgrades, staffing, management overview, and day-to-day supervision.

F. Engineering /Technical Support: There were improvements in staffing, work package timeliness and interfaces, modification backlog, and safety analysis quality. A comprehensive configuration management program was initiated.

G. Safety Assessment/Quality Verification: Quality and safety improvements were evident in administrative controls, engineering depth, and safety perspective. Quality assurance was more effectively used as a management tool.

III. PERFORMANCE ANALYSIS

III.A. Plant Operations (1869.8 hours, 37.3%)

III.A.1. Analysis

This area was previously rated Category 2. Strengths included: operator qualification, training, and performance; the Human Performance Enhancement System (HPES); and management support of the college degree program. Weaknesses included independent verification of system alignments, fire protection training, and housekeeping.

During this period, the operators were knowledgeable and competent, and maintained a professional control room atmosphere. During power operations, they responded correctly to four reactor trips, and initiated plant shutdowns when required. The trips resulted from component failures, a faulty procedure, and a technician's failure to follow procedures, and not from operator error. During the 1990 refueling outage, the operators carefully controlled mid-loop operation, and the post-outage start-up was well controlled.

Continued management involvement in daily planning meetings helped with effective control and coordination of activities, especially during outages. Implementation of the HPES process was expanded station-wide. A coordinated Piping and Instrument Drawing (P&ID) upgrade and the component labeling program were effectively implemented, with substantial progress made in the containment building during the refueling outage.

The requalification program received an overall unsatisfactory rating during examinations in June 1989. Six of 11 operators failed the examination, with one crew failing the simulator examination. Deficiencies included: EOP implementation; poor communication among crew members; and confusion during transitions between different EOPs during simulator exercises. The problems identified in this case were assessed as due to the transition in the program, and not due to program breakdown. RG&E immediately began remedial actions. EOP training was improved in clarity and guidance. Following retraining, four operating crews were evaluated in August 1989 and found to be adequately trained, although communications among crew members still needed emphasis. No problems were noted in using the EOPs. The operators who failed the June examination were retested successfully; these operators were well-prepared and communicated well. In September 1990, another requalification examination as well as initial and upgrade license examinations were administered. Preliminary NRC review indicated that the requalification program was satisfactory.

Inspection of EOPs in October 1989 found an excellent program. The procedures were well-written and operators applied them effectively in the simulator. Minor concerns were identified; corrective actions were thorough and timely.

Ineffective independent verification of system alignments was a weakness in the last SALP. System alignment errors and inadequate independent verifications led to two spills in controlled areas early in this SALP period. A month after the spills, procedure adherence problems and inadequate independent verifications led to a subcooling monitor not being properly returned to service. An RG&E HPES evaluation of this event determined that personnel did not fully understand the requirement for independent verification and that associated communications were ineffective. A task force was subsequently formed to address procedure adherence and independent verification, but new administrative procedures were not in place and training was not complete by the end of the SALP period. Nonetheless, improvement was observed during the last half of the SALP period, and only one failure to follow procedures was identified during the 1990 annual refueling outage.

Housekeeping, identified as a weakness in the last two SALPs, improved. During the 1990 refueling outage, in-plant housekeeping was good, but maintenance shop areas needed attention. During the last half of the period, housekeeping improved considerably. Plant and corporate management assured that higher housekeeping standards were maintained. Senior corporate management also made periodic backshift tours and provided written feedback to plant management.

The fire protection training weaknesses identified during the last SALP were corrected. Fire protection performance this SALP period was good: only two minor personnel errors by fire watchstanders were noted, and compensatory actions for equipment out of service were timely and appropriate.

Overall, the plant was operated competently and transients were handled effectively. Management supported ongoing programs and addressed weaknesses. Housekeeping improved. The unsatisfactory operator requalification program was acceptably corrected. EOPs were well written and the EOP upgrade program was well-designed. After some initial problems, procedure adherence and independent verification improved later in the SALP report period.

III.A.2. Conclusion: Category 2.

III.B. Radiological Controls (289 hours, 5.7%)

III.B.1. Analysis

This area was rated Category 2 in the last SALP. Strengths included radiation worker training and ALARA program implementation. Weaknesses were noted in Radiation Protection Management oversight of outage field activities, responses to quality assurance audit and NRC inspection findings, procedural compliance, and ALARA planning for the outage. The SALP board recommended a special NRC inspection of the licensee's corrective action program.

The licensee generally maintained adequate staffing of the radiological controls program. Partially in response to NRC concerns regarding the shortage of permanent Radiation Protection (RP) technicians to support outages, the RP Department obtained corporate approval to add eight additional technicians. However, the loss of two RP managers prior to the outage placed an unanticipated extra workload on the remaining RP managers. As a result, supervisors were unable to enhance their monitoring of field work. This contributed to less than fully effective job coverage for steam generator work. In addition, a lack of program oversight to ensure that correct administrative exposure limits were adhered to resulted in a violation. Although program changes were not instituted to address the lack of field supervisory oversight, the licensee authorized an additional staff position to address this issue. The licensee made some staffing improvements such as the appointment of ALARA technicians, but most staffing improvements were still in the planning stage during the SALP period.

The licensee's training programs were adequate. Deficiencies were noted in qualifying individuals to use radiation monitoring instruments, monitoring requirements for steam generator entries, and tracking of internal exposures.

Except as noted above, the licensee had a good program for monitoring and minimizing internal and external exposures. Although improvement was made in the posting of areas for radiation protection purposes, deficiencies were still noted in posting and in updating surveys of the plant. A poor practice of allowing individuals to eat and drink in the Counting Room and the Chemistry Laboratory was noted; the licensee eventually changed this practice. While RP involvement in maintenance planning was good, weaknesses were noted in communications between the individuals who write radiation work permits and the technicians who provide job coverage. This resulted, for example, in the establishment of inappropriate contamination control zones. During the first week of the 1990 refueling outage, personnel contaminations were more than twice those projected. Corrective actions included targeting specific work groups for training and protective clothing requirements. These corrective actions were effective as demonstrated by the decrease in the number of personnel contamination events.

The licensee effectively reduced cumulative annual personnel exposures. In doing so, effective use was made of steam generator and reactor coolant pump mock-ups. ALARA reviews of routine and modification work inside the radiation controlled area were thorough.

During the last SALP, a weakness was noted in licensee responses to quality assurance audit findings and NRC inspection findings. This weakness continued early in the current assessment period. The Corrective Actions Coordinator was assigned to track significant audit and NRC findings, and responses to findings improved considerably. Radiation protection audits were appropriate in scope and were completed by well-qualified individuals. In addition, quality assurance oversight of Counting Room results was good.

The licensee's quality assurance/quality control program continued its positive contributions in the transportation, radwaste and effluents areas. Audits and surveillances were thorough, with all deficiencies promptly corrected. In the last SALP, a persistent weakness in QC surveillance of ' istry was noted. During this period, a comprehensive quality program w ved in the confirmatory measurements and non-radiological chemistr hough this program was not formalized in procedures or a QA m Radiological and Environmental Monitoring Program area, basic ere absent and there was little evidence of QC in the Radiocher y, although the Environmental Laboratory was under the directi radiochemist.

Three Licensee Event Reports (LERs) were i nment ventilation isolations caused by spurious high radiat ls. Two of the isolations occurred within three days and ha cause. Licensee corrective actions for the first of th ate to prevent the second one. Also, a violation resulted fro ation of a radwaste shipment ~~non-compliance by the State of Sou~~

Training of radwaste workers wa ning of the Environmental Laboratory Technician to perform monitori al functions was assessed as weak.

In summary, the licensee ly staffed occupational radiation safety organization. However, mprovements were still in the planning stage. The licensee h program for monitoring and minimizing internal and external exposur ely reduced cumulative annual personnel exposures. Changes e responses to audit and inspection findings were effective. cy assurance/quality control program continued to make positive c to the transportation, radwaste, and effluents programs, basic qual ol procedures were missing from the REMP. Radwaste and REMP staffing remai adequate. Radiological controls training was adequate overall, but the training of the one Environmental Technician in monitoring and analytical functions lacked depth.

III.B.2. Conclusion: Category 2.

III.B.3. Board Comment: Filling of radiological controls vacancies and assuring effectiveness of training programs for health physics and environmental laboratory technicians are keys to improving performance.

SEE AMENDED PAGE
REGIONAL ADMINISTRATOR

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The licensee's quality assurance/quality control program continued its positive contributions in the transportation, radwaste and effluents areas. Audits and surveillances were thorough, with all deficiencies promptly corrected. In the last SALP, a persistent weakness in QC surveillance of chemistry was noted. During this period, a comprehensive quality program was observed in the confirmatory measurements and non-radiological chemistry areas, although this program was not formalized in procedures or a QA manual. In the Radiological and Environmental Monitoring Program area, basic QC procedures were absent and the QC applied in the Radiochemistry Laboratory was not evident in the Environmental Laboratory, although both were under the direction of the same radiochemist.

Three Licensee Event Reports (LERs) were issued for containment ventilation isolations caused by spurious high radiation alarm signals. Two of the isolations occurred within three days and had the same root cause. Licensee corrective actions for the first of these was inadequate to prevent the second one. Also, a violation resulted from the identification of a radwaste shipment non-compliance by the State of South Carolina.

Training of radwaste workers was good, but training of the Environmental Laboratory Technician to perform monitoring and analytical functions was assessed as weak.

In summary, the licensee had an adequately staffed occupational radiation safety organization. However, most staffing improvements were still in the planning stage. The licensee had an adequate program for monitoring and minimizing internal and external exposures and effectively reduced cumulative annual personnel exposures. Changes made to improve responses to audit and inspection findings were effective. While the quality assurance/quality control program continued to make positive contributions to the transportation, radwaste, and effluents programs, basic quality control procedures were missing from the REMP. Radwaste and REMP staffing remained adequate. Radiological controls training was adequate overall, but the training of the one Environmental Technician in monitoring and analytical functions lacked depth.

III.B.2. Conclusion: Category 2.

III.B.3. Board Comment: Filling of radiological controls vacancies and assuring effectiveness of training programs for health physics and environmental laboratory technicians are keys to improving performance.

III.C. Maintenance/Surveillance (1442.2 hours, 28.8%)

III.C.1. Analysis

The previous SALP rated this area as Category 2. Strengths were thoroughly qualified and technically competent personnel, outage controls, responses to weaknesses, Inservice Inspection (ISI) and Inservice Testing (IST) program implementation, and staffing increases. Weaknesses were several safety-related valves being omitted from the IST program, supervisory observation of activities, procedure adherence, and interfaces with the quality groups.

During this SALP period, maintenance was implemented by technically competent personnel. Supervisory observation was improved and management established clear goals for this activity. The organization was expanded to include planners for each discipline. These planners also observed activities, especially to help resolve procedure problems.

Early in this period, several failures to follow procedures were identified. Corrective actions achieved good results. Interfaces between the quality performance group and maintenance personnel improved considerably: QC inspectors were actively involved in activities, with good information exchanges occurring.

The program for defining maintenance requirements and for controlling, monitoring, evaluating, and implementing maintenance was effective and was significantly improved within the last year. A self-assessment was performed and deficiencies were addressed. Capital resources were provided, and staffing was increased.

A stable, dedicated work force with good supervision was a major strength. Maintenance workers exhibited a strong sense of ownership. The crafts were observed to be competent, with thorough and meticulous work habits. Craft supervision and planners were frequently present at work sites. Work sites were clean and orderly, and excellent work practices were followed. Housekeeping during the 1990 refueling outage was good with the exception of the craft shops, which were cramped and messy.

Corporate and site management strongly supported maintenance. Major initiatives included a configuration management program, procedure upgrading, a reliability centered maintenance program, and replacing aging and worn plant equipment. An initial upgrade of calibration procedures was completed; upgrading of the remaining maintenance procedures is planned to begin in late 1990. Reliability centered maintenance program analysis was completed and implementation of recommendations began. Benefits have been realized, such as preventive maintenance program additions for the emergency diesel generators.

Work backlog was controlled and received appropriate management attention. The work control system was effective in controlling and documenting maintenance, but retrievability of records was difficult. Also, instances were identified where documentation of as-found conditions and planning needed improvement.

Plant and corporate management, operations, engineering, technical support, quality control, maintenance supervisors, and shop foremen met twice daily during the refueling outage. These meetings were effective for scheduling maintenance and communicating concerns to management.

Measuring and test equipment and tools were controlled effectively. However, approximately 30% of the lifting slings were overdue for inspection in 1990 and, though informed that a sling inspection problem existed after a 1988 inspection, the technical support and quality control groups had not instituted corrective measures. Subsequently, the slings were acceptably tested and a general upgrade in procurement and material controls was initiated.

Training was improved and many initiatives were still being considered. Management provided needed resources. A dedicated Maintenance Training Group was established in the Training Department. Training, which had been conducted offsite, was moved to new onsite facilities. Vendors were frequently used to augment the training program. Maintenance training was directed primarily at enhancing craft skills. However, the licensee had not assessed training needs (such as industrial standards) for other personnel associated with maintenance. A licensee self-evaluation identified deficiencies such as a lack of staff involvement in training and poor communication between maintenance management and the Training Department. Corrective actions had not been implemented at the time of the review.

Surveillances were performed on time by well-qualified personnel, with equipment downtime minimized. Documentation was good. Deficiencies were properly resolved.

The licensee implemented a formal system, with a master schedule, to control and evaluate testing, calibration, and inspection of systems and components. That system included Technical Specification requirements for pumps and valves, and calibration and control of measuring and test equipment and instruments. Audits showed that the surveillance test and calibration programs were being performed satisfactorily, but trending did not include post-maintenance test data. To improve these areas, computerized trending and scheduling were implemented near the end of the SALP period with no major difficulties experienced.

The licensee performed a check valve review and had an acceptable program for ensuring check valve operability. Also, diesel fuel testing assured proper quality fuel for the emergency diesel generators. However, there were some weaknesses in surveillance. Standard licensee testing practices were not always performed or documented and, in some cases, test data were recorded inaccurately and inconsistently. Pressurizer safety-relief valve testing each refueling exceeded ASME requirements, but the test procedures contained only general, minimal instructions. Also, control room DC voltmeters were not calibrated periodically. In addition, surveillance personnel were observed to be inadequately verifying the position of the turbine-driven auxiliary feed pump steam admission check valves. Initial corrective actions for this were ineffective. Final resolution was to modify the position indication on the two check valves, making position verification easier.

Overall, maintenance was well-planned and adequately accomplished by competent workers. Procedures were being upgraded and the reliability centered maintenance program was being implemented. Problems continued with procedure adherence, though progress was noted later in the SALP period. Training needs continued attention. Surveillances were appropriately completed with only a few problems identified. Corrective actions were generally adequate and timely.

III.C.2. Conclusion: Category 2, Improving.

III.C.3. Board Comment: Maintenance showed overall improvement, with initiatives in progress to better formalize the process.

III.D. Emergency Preparedness (492 hours, 9.8%)

III.D.1. Analysis

During the previous SALP, this area was rated Category 1. No exercise weaknesses were identified. An excellent emergency response capability was demonstrated. The licensee maintained a relatively strong emergency preparedness (EP) program but a deficiency related to procedural review and an isolated deficiency in the EP audit program were noted.

During this SALP period, no exercise weaknesses were identified during the full-participation emergency exercise. A strong, positive response to scenario conditions was demonstrated by the licensee's staff.

Management involvement in emergency preparedness continued to be good. Managers maintained emergency response organization position qualification, reviewed and approved plan and procedure changes, participated in drills and exercises, resolved audit noncompliance issues, exercised oversight, and interfaced effectively with the New York State Office of Emergency Management and the Emergency Management Agencies of Wayne and Monroe Counties.

The licensee responded to the program weakness (in interfacing with the surrounding counties) noted in the previous SALP by increasing emergency preparedness staffing to two full time positions. Both emergency preparedness staff members have backgrounds in reactor operations and health physics. In addition, the Corporate Health Physicist who is responsible for the emergency preparedness program increased the time devoted to this activity. Program continuity was well maintained following the retirement of the former Corporate Nuclear Emergency Planner who was previously the sole full-time emergency preparedness staff member. A number of improvements were initiated, as noted in the following paragraphs.

The licensee demonstrated concern for quality. The Site Contingency Procedures and the Emergency Operations Facility (EOF) Plan were reclassified as Emergency Plan Implementing Procedures (EPIPs). All EPIPs were effectively reviewed by the Plant Operations Review Committee (PORC) and the Nuclear Safety Review Board. Prior to this, EOF procedures were not subject to PORC review. The Nuclear

Emergency Response Plan also was revised, as were the Emergency Action Level Classification Tables. All classifications were correlated to the Emergency Operating Procedures. The licensee committed to extend this correlation to Abnormal Procedures for natural and security events. The licensee also continued to control drills and exercises from the simulator, thus enhancing their effectiveness.

Off-site activities were extensive. Frequent interface meetings of all types were held with state and county officials. In addition, the adequacy of these interfaces was reviewed as part of the licensee's EP program audit, and audit results were provided to state and county officials. This corrected a weakness discussed in the previous SALP. Training of Emergency Planning Zone emergency workers was effective. Public Information Material was widely disseminated. The licensee maintained the siren system in readiness, with siren availability for 1989 greatly exceeding Federal Emergency Management Agency (FEMA) specifications. Further, the licensee established a basis document for the procedure governing the collection of iodine samples by off-site monitoring teams, and developed a portable portal monitor which can be used off-site. Overall, the licensee's resolution of technical issues was technically sound and demonstrated a clear understanding of the issues.

Emergency preparedness training, with the exception of Emergency Planning Zone emergency worker training (a responsibility of the Health Physics Department), was the responsibility of the Training Department. Training in the revised Nuclear Emergency Response Plan and Implementing Procedures was completed and the revised plans became effective August 1, 1990. Training of the Emergency Response Organization (ERO) staff was based on a training matrix and lesson plans. All ERO positions were filled three deep, with some multiple tasking of staff. Reactor operators received classroom and simulator training in accident classification, off-site notification and Protective Action Recommendation development. As part of their emergency preparedness training, reactor operators visited the EOF and the Monroe County Emergency Operations center. These visits were made to demonstrate the use to which operator-supplied information is put by government, the extent of off-site activities, and the nature of the extended team which evolves. Core Damage Assessment training and training in projected dose calculation methodology was also provided. The training program was well defined and made a positive contribution to emergency preparedness effectiveness as shown by the excellent performance during the annual exercise.

In summary, the licensee maintained an excellent emergency preparedness program. Management remained involved, with a demonstrated commitment to quality. Resolution of technical issues was sound and thorough. The Emergency preparedness Program staff was qualified to maintain an effective program. Training was well developed and effective as demonstrated by exercise performance. A good working relationship was maintained with the State and Counties, with regular meetings and frequent drills.

III.D.2. Conclusion: Category 1.

III.E. Security (86 hours, 1.7%)

III.E.1. Analysis

During the previous SALP, performance was rated Category 2. The licensee had an effective program but lacked management oversight and support for security system upgrades. There were uncorrected inconsistencies in the Security Plan and security force staffing was marginal.

Inspections during this period identified minor weaknesses in several areas and two violations (compared to five during the previous period). The two violations this period involved personnel access control. Measures to correct the weaknesses and personnel access control problem were promptly initiated and deficiencies were corrected or were being corrected. A Regulatory Effectiveness Review near the end of this period concluded that, while some weaknesses existed, the program was sound, well-maintained, and reflected a diligent and proactive approach by security personnel.

Management support for, and attention to, the program increased and was most notable by the significant improvements made in maintenance, perimeter intrusion detection, and lighting. Additionally, the licensee engaged a nuclear security consultant to review certain aspects of the program and to propose resolution of weaknesses. The consultant's efforts were extensive and in-depth, and implementation of the consultant's recommendations has resulted in several program enhancements thus far. The licensee also contracted with the consultant to review the security plan to correct inconsistencies and ambiguities and to structure it in a format that is more consistent with NRC guidance. That project is underway. However, the licensee's process to implement appropriate correction of identified deficiencies was slow. For example, from identification to correction, protecting a vital area door hinge took four months. Resolution of some other minor problems has also taken several months.

Over this SALP period, security management and contractor supervisors increased their participation in training and held more meetings with security force members, and were thereby more involved in day-to-day program implementation and provided closer supervision of the force. The licensee's supervisory staff was increased from two to five to more effectively manage the program. The licensee also continued to be actively involved in industry groups engaged in nuclear plant security matters. Close and effective liaison with local law enforcement agencies remained evident in interface meetings and drills conducted by the licensee. Additionally, the positive attitude displayed by all plant personnel toward the security program was continued throughout this period.

Security Force Members were found knowledgeable of their duties and responsibilities, and exhibited a professional demeanor. The size of the force was recently increased by 18 to alleviate previously identified concerns. This has decreased the amount of individual overtime to fulfill compensatory post requirements resulting from program upgrades and equipment malfunctions. The turnover rate in the force was less than five percent.

The training and requalification program was administered effectively. Personnel performed very well within the scope of their training. However, the training program did not have a mechanism to incorporate lessons learned into formal lesson plans, although lessons learned were emphasized during on-the-job training. Also, the Regulatory Effectiveness Review team identified a weakness in weapons training. The licensee reviewed this weakness during weapons requalification and security drills, but did not incorporate its correction in the weapons training lesson plans.

The annual audit of the security program by the licensee's quality assurance group was primarily compliance-oriented. This conclusion was based upon a subsequent NRC inspection during which multiple examples of performance-related inconsistencies, such as personnel searches, were identified.

Review of the licensee's security event reporting system and procedures found them to be consistent with the NRC's regulations and implemented by personnel knowledge of the reporting requirements. No one-hour reports were required during the assessment period.

In summary, the licensee maintained an effective and sound security program and took the initiative to update and enhance the program. Management involvement was evident in the security system improvements completed and initiated, in closer supervisory control of the security force, and in increases in the licensee's security staff and the contractor's force. However, the weakness in performance-related auditing, slow deficiency correction, and the failure to incorporate weakness correction measures in lesson plans detracted from the potential effectiveness of the security program.

III.E.2. Conclusion: Category 2, Improving.

III.E.3. Board Comment: Increased management attention has produced a positive performance trend.

III.F. Engineering/Technical Support (185 hours, 3.7%)

III.F.1. Analysis

In the last SALP, performance was rated Category 2. Improvements were noted in site organization realignment and in corporate and site engineering staffing. Noteworthy performance was evident in steam generator (SG) inspection and sleeving, and initiative was exhibited in the redesign of the SG supports. Weaknesses were identified in 10 CFR 50.59 reviews, engineering evaluations of modifications, modification package timeliness and backlog, self-assessment, and formal communications between corporate engineering and plant operations.

Outage planning and implementation were a licensee strength and engineering support was a major contributor to this success. Modifications performed during the 1990 outage were thoroughly reviewed and well-controlled, and were completed

without problems. These included: valve stem packing improvements that replaced asbestos and utilized live loading; seismic supports for reactor bottom-mounted instrument tubing; improved nuclear instrumentation system (NIS) trip bypass switches; an offsite power system modification to increase power availability; improved SG access for inspection and maintenance; an improved low-temperature overpressure (LTOP) relief valve flanged design to enable removal and testing; and upgrading of tubing and supports in containment. In addition, the in-process diesel generator building structural upgrade to withstand a stronger tornado was being appropriately performed. Also, planning for a digital feedwater control system to replace the aging analog system in 1991 has shown engineering direction and leadership. This is a high priority item to correct the low power steam generator level control problem that has caused plant trips.

During the 1990 outage, Site Technical Engineering completed several extensive minor modifications under the Ginna valve and valve actuator program which was started in 1989. One was the inspection and refurbishment of 38 valves of varying size, type, and manufacture. Another was the actuator upgrade and diagnostic testing of 26 motor-operated valves. Good engineering analyses and considerable expertise and conservatism were evident in these site-directed efforts. Site Technical Engineering also evaluated equipment and parts, such as material upgrades for the pressurizer safety valves and valve part replacements. Minor modifications, performed using the same detailed design criteria and safety analyses as major modifications, were an example of good engineering practice. Overall, improvements were observed in modification control, timely release of construction packages, and the backlog of major modifications.

10 CFR 50.59 reviews, a weakness in the last SALP, improved notably: the reviews were more detailed and conclusions and rationales were more thoroughly documented than before. Examples included the analysis for temporarily tying the pressurizer level transmitter reference legs together, the process followed during a circuit breaker modification, and the other previously discussed modifications.

During the SALP period, with management support and funding approval, the licensee initiated a comprehensive configuration management program (CMP) that is to be completed in 1994. The purpose of this CMP is to better assure that the Ginna plant is operated and modified within design bases, and that documentation more accurately reflects equipment. This program includes: system walkdown verifications and upgrades of drawings; the Q-list; and other procedures, setpoint verification and calibration, document control, and vendor manuals. It also includes commitment tracking, individual plant evaluations, and design basis documents (DBDs). Most phases of this large-scale program have been initiated. As of August 1990, a partial release of electrical drawings was made and all 147 P&IDs were re-issued. A pilot DBD verification, utilizing the common interests of the Westinghouse two-loop owners' group, is to be performed by Westinghouse on the residual heat removal (RHR) system by the end of 1990. Formal content and format requirements for the total DBD program are not yet in place and DBD activity was consciously delayed until more baseline plant configuration knowledge is obtained.

The NRC Safety System Functional Inspection reviewed the RHR system. No conditions preventing the system from performing its function were found. There were, however, several findings of weaknesses in the licensee's overall engineering assurance practices. As an example, no administrative mechanism existed to ensure that design calculations are maintained up-to-date. Corporate Engineering evaluated the findings to determine the cause and made corrective recommendations to management.

Good support of maintenance by Site and Corporate Engineering and a good communications interface were noted. There were minor problems with drawing retention and with evaluation of a vendor change to a source and an intermediate neutron detector.

Engineering support of and participation in licensing actions continued to be strong. The licensee demonstrated good understanding and conscientiousness in the resolution of fuel pin leaks. This included core off-loading, full ultrasonic examination, and fuel reconstitution.

The licensee demonstrated good understanding of ASME Code requirements in recent submittals and relief requests for the next 10-year interval ISI and IST programs. The ISI and IST programs had appropriate implementation and engineering support. The Systematic Evaluation Program (structural upgrade) was effective and is being implemented.

Extensive erosion-corrosion control program inspections and reexaminations to identify wall thinning were effective in identifying components to be replaced. Steam generator tube sleeving and plugging in the 1990 outage used newly developed automated technology and was well-performed.

In general, communications between corporate engineering and plant operations were improved. Corporate engineers were more actively involved with plant activities, especially modifications, and plant morning meetings were more frequently attended. However, there was an instance where Corporate Engineering did not notify plant personnel in a timely manner regarding a potential failure of the safety injection block/unblock switch. As corrective action, an engineering procedure was established to help assure that plant personnel will be formally notified of potential adverse to quality conditions known to Corporate Engineering. Effective communications between Corporate Engineering and the Site Technical Department Engineering were not as evident (e.g., no formal meetings) as that between Corporate Engineering and the Site Modifications Department.

Previously noted staffing shortages have been addressed: staffing at Corporate Engineering was substantially increased, from 105 positions in December 1989 to a present authorization of 144 positions.

In summary, engineering and technical support improved. The licensee's management and engineering staff was knowledgeable and technically competent, and open in inspection and licensing interfaces. Many weaknesses identified in the last SALP showed improvement, including the interface between corporate and site engineering on major modifications, timeliness of work packages, the decreased

major modification backlog, and improved safety analyses. Corporate Engineering recognized the need to further increase engineering support. Site Technical Engineering completed several extensive minor modification and equipment evaluations, and good engineering support was evident. The commitment to the broad scope configuration management program is a large undertaking which is in its initial stages.

III.F.2. Conclusion: Category 2.

III.F.3. Board Comment: Significant program upgrades were made, but their effectiveness has yet to be demonstrated.

III.G. Safety Assessment/Quality Verification (652.8 hours, 13.0%)

III.G.1. Analysis

This area received a Category 2 rating in the last SALP. Strengths included high quality licensing submittals, strong senior management support and participation in resolving technical issues and promulgating policy, and initiation of programs to improve Quality Performance Department (QPD) oversight effectiveness. Weaknesses were identified in the lack of formality and consistency in addressing corrective actions on QPD findings, a failure of audits to identify programmatic problems, and the QPD not being effectively used as a management tool.

The Quality Performance Department was reorganized/redirected under a new manager. A revision to the Quality Assurance Program specified stronger administrative controls, formal communication of issues to management, and more extensive use of the QPD by management. In response to a plant trip during restart from the 1989 refueling outage, resulting from poor coordination of a modification, the licensee instituted improvements in controlling modifications which included more formal communications between the Quality Performance Modification Support, Operations, and Training Departments. Administrative controls were also strengthened in procedural compliance areas which involve QPD management. Improvements also included a more active involvement of QPD personnel in maintenance.

Instances of failure to follow procedures occurred, and failure to properly perform independent verifications were noted during the first half of the SALP period. Early in the SALP period, Safety Injection System recirculation valves were found out of position and containment atmosphere radiation monitors were not properly returned to service. Additionally, in November 1989, a reactor coolant system subcooling monitor was not properly returned to service. Senior plant management responded by forming a task force of departmental managers to address procedure adherence, system alignments, and independent verification. Improved performance was noted later in the period.

Licensee audits were performed in accordance with the Quality Assurance (QA) Program. Annual evaluations of audit effectiveness were provided to plant and corporate management. In general, remedial and corrective actions were implemented.

Deficiencies being corrected included incorporating definitive acceptance criteria in audit checklists. A recent initiative was to schedule more performance-based QA audits. The licensee's Nuclear Assurance Group found generally good maintenance planning, but also found that formal training was lacking in independent verification. The Nuclear Assurance Group further concluded that procedural guidance on performing independent verification was weak. This self-assessment was not, however, followed-up by the licensee.

In September 1989, a small fuel leak caused increased primary system radioactivity, which remained was well within the Technical Specification (TS) limit. The licensee off-loaded the core for a full ultrasonic examination during the 1990 refueling outage, demonstrating safety conservatism.

The Inservice Pump and Valve Testing (IST) Program and the Inservice Inspection (ISI) Program for the 1990-1999 ten-year interval have been under separate review by the NRC staff. In supporting the IST Program submittal, RG&E actively contributed to the resolution of relief requests and justifications of cold shutdown testing involving Westinghouse and Owners' Group participation. Corporate engineering proposed good solutions to IST problems (e.g., use of advanced diagnostic equipment) and was timely in responses to NRC requests for additional information. Such active involvement and detailed program submittals allowed the NRC to approve the ISI Program in July 1990. Throughout the review, the licensee showed a thorough understanding of regulatory requirements.

During the previous SALP period, a license amendment was rejected because of inadequate limits on auxiliary feedwater pump out-of-service time. During this SALP period, the licensee submitted two revised requests; the second fully addressed the associated safety considerations and was approved. This process occurred over a long period of time and required significant NRC staff guidance, but the licensee's performance during this SALP period was good.

The licensee was consistent in the approach to generic concerns and demonstrated a technically competent, safety conscious perspective. The quality of submittals on NRC bulletins and generic issues indicated good involvement and commitment by management. As a typical example, the licensee's response to NRC Bulletin 88-04, "Potential Safety-Related Pump Loss," was received in the appropriate time frame and provided good detail. The response demonstrated a good understanding of the potential for safety-related pump damage during operation in the miniflow recirculation mode of the safety injection (SI) and residual heat removal (RHR) systems. As a result, a redesign of the minimum flow recirculation systems for the SI and RHR pumps (new piping, valves, and instrumentation) was completed and installed during the 1989 and 1990 refueling outages.

The longstanding presence of groundwater in the annular access area of the containment building prompted NRC staff follow-up. After an NRC staff walkdown in June 1990, the licensee promptly responded to the safety concerns. Documentation of evaluations/analyses demonstrated that containment prestress continues to meet design requirements. RG&E expeditiously provided engineering evaluations that the ground water in-leakage to the annular access area was not coming from under the containment basemat and did not invalidate assumptions made in the

original design. Senior management and corporate engineering thoroughly evaluated the safety implications of the ground water flow and conducted a modification/repair effort to the containment foundation area to assure that no standing ground water would be in contact with containment components.

On September 26, 1990, an NRC Augmented Inspection Team was dispatched to the site to investigate the failure of the turbine to trip in response to a reactor trip signal. The team found the licensee's evaluation and root cause analysis acceptable, and corrective actions appropriate.

Overall, changes in corporate and plant programs, management, and staffing resulted in improved performance. Improvements were evident in Quality Performance Program effectiveness, engineering depth, and safety perspective. Quality Assurance organizations were more effectively used as a management tool and less reliance was placed on work force experience. RG&E's management commitment to upgrade administrative and engineering controls to enhance plant safety was evident.

III.F.2. Conclusion: Category 2.

SUPPORTING DATA AND SUMMARIES

A.1. Licensee Activities

At the beginning of the assessment period, the plant was starting up from the 1989 refueling and maintenance outage. A reactor trip occurred on June 1, 1989 from 53 percent power due to a turbine trip. The turbine tripped due to an unanticipated actuation of the ATWS Mitigation System Actuation Circuitry (AMSAC). The plant was returned to power on June 2, 1989.

On June 19, 1989, operators discovered two safety injection recirculation valves out of position, declared both pumps inoperable, and initiated a plant shutdown. The plant was returned to full power later that day when the valves were repositioned and the pumps were satisfactorily tested. On June 21, 1989, the plant was shut down when personnel were unable to obtain repeatable results for recirculation flow for two of the safety injection pumps (a design problem). The plant was restarted on June 25, 1989, after the recirculation problem was resolved.

A turbine runback occurred on July 6, 1989, when a shutdown bank rod dropped. Power was manually reduced to approximately 49 percent, the rod was recovered, and power was increased to full power on July 7, 1989.

The Microprocessor Rod Position Indication (MRPI) system failed on July 29, 1989, requiring the plant to shut down. A shorted coil stack was replaced and the plant was returned to power on August 11, 1989.

On September 1, 1989, failed fuel was indicated. Ginna personnel tracked the coolant activity level and verified compliance with Technical Specifications and administrative limits. During the 1990 refueling and maintenance outage, the leaking fuel rods were identified and replaced with dummy rods.

A turbine runback reduced plant power to 80% on October 7, 1989. Nuclear instrumentation caused the runback; the faulty component was replaced. Two other runbacks, to 95% power, occurred on November 19 and 22, 1989 due to different faulty components in the T-AVG circuitry; the components were replaced.

On March 19, 1990, coastdown for refueling began. On March 23, 1990, after the reactor was subcritical, a reactor trip occurred due to a failed source range detector. Startup from the refueling outage occurred on May 7, 1990.

Plant trips occurred on May 10, 1990 and June 9, 1990 due to feedwater regulating valve controller failures. The root cause was different in each case.

A plant shutdown was initiated on July 5, 1990 after control rods were declared inoperable. While performing surveillance testing, the wrong rods moved when demanded. Circuit cards were replaced, the plant was returned to full power from 83 percent power, and no further problems were encountered. The plant remained at approximately full power until September 26, 1990.

On September 26, 1990, a plant trip was caused by personnel error when a technician performing wiring checks dropped a flashlight onto the uncased contacts of the turbine auto-stop relays. The plant resumed normal operations on September 29, 1990.

A.2. Direct Inspection and Review Activities

Two NRC resident inspectors were assigned to the site throughout most of the assessment period. Total NRC inspection effort was 5017 hours (3763 hours per year). See Section D for functional area expenditures.

Team inspections were: Requalification Program Inspection (89-10), Emergency Operating Procedure Inspection (89-80), Safety System Functional Inspection (89-81), Regulatory Effectiveness Review, Maintenance Team Inspection (90-80), and Augmented Inspection Team (90-19).

B. Significant Meetings

Dates	Purpose
7/25/89	RG&E/Region I Management - Operator Requalification Program
8/24/89	SALP (87-99) Management Meeting
10/3/89	Enforcement Conference - Modification Control
10/24/89	RG&E/Region I Management - Quality Performance Program Improvements
12/4/89	RG&E/Region I Management - Status of RG&E List of Nuclear Concerns
2/7/90	RG&E/Region I Management - Maintenance Program Improvements
3/6/90	RG&E/Region I Management - Configuration Management Program
4/25/90	Mid-Cycle SALP Assessment
5/21/90	Commissioner Rogers Site Visit
6/19/90	Commissioner Curtiss Site Visit
7/24/90	RG&E/NRR - Advanced Digital Feedwater Control System
9/26/90	RG&E/NRR - Post-Accident Neutron Flux Instrumentation (RG 1.97)
9/27/90	RG&E/NRR - Auxiliary Electrical Systems for Offsite Power Sources Available

C. Enforcement Activity

Functional Area	No. of Violations in Each Severity Level V	IV	III	II	I	Total
A. Plant Operations	4	2				6
B. Radiological Controls		1	1			2
C. Maintenance/Surveillance	4	1				5
D. Emergency Preparedness						
E. Security		2				2
F. Engineering/Technical Support	4	3				7
G. Safety Assessment/Quality Verification		2				2
Total	12	11	1	—	—	24

D. Inspection Hour Summary

	Actual	Annualized	Percent
Plant Operations	1869.8	1402.4	37.3
Radiological Controls	289.0	216.8	5.7
Maintenance/Surveillance	1442.2	1081.6	28.8
Emergency Preparedness	492.0	369.0	9.8
Security	86.0	64.5	1.7
Engineering/Technical Support	185.0	138.8	3.7
Safety Assessment/Quality Verification	652.8	489.6	13.0
Totals	5016.8	3762.6	100.0

E. Licensee Event Report Causal Analysis

	A	B	C	D	E	X	Total
Plant Operations	3	1		2	3		9
Radiological Controls	1			2			3
Maintenance/Surveillance	2	2		2	3	2	11
Emergency Preparedness							
Security							
Engineering/Technical Support		3					3
Safety Assessment/Quality Verification							
Total	6	6	—	6	6	2	26

Cause Codes

A - Personnel Error
B - Design, Manufacturing, Construction or Installation Error
C - External Cause
D - Defective Procedures
E - Component Failure
X - Other

F. Criteria: Each functional area was classified as one of the following.

Category 1. Licensee management attention and involvement in nuclear safety or safeguards activities resulted in superior performance. NRC will consider reduced levels of inspection effort.

Category 2. Licensee management attention and involvement in nuclear safety or safeguards activities resulted in a good level of performance. NRC will consider maintaining normal levels of inspection effort.

Category 3. Licensee management attention and involvement in nuclear safety or safeguards activities resulted in an acceptable level of performance; however, because of the NRC's concern that a decrease in performance may approach or reach an unacceptable level, NRC will consider increased levels of inspection effort.

The SALP Board may assess the performance trend in a functional area. A trend is normally assigned when it is necessary to focus NRC and licensee attention on an area with a declining performance trend, or to acknowledge an improving trend in licensee performance. The trends are:

Improving: Licensee performance was determined to be improving during the assessment period.

Declining: Licensee performance was determined to be declining during the assessment period and the licensee had not taken meaningful steps to address this pattern.

ENCLOSURE 2

GINNA SALP MANAGEMENT MEETING

NOVEMBER 20, 1990

LIST OF ATTENDEES

R. E. GINNA

R. Beldue	Corporate Nuclear Emergency Planning
D. Bryant	QA Engineer
M. Cavanaugh	Site Fire Protection Engineer
W. Dillon	Director of Security
C. Edgar	Manager, Electrical/I&C
J. Huff	Maintenance Training Manager
J. Hutton	Director, RGE/NMP2
R. Kober	President and COO
D. Lanvak	Senior Vice President, Electric Distribution and Customer Services
T. Marlow	Superintendent, Ginnal Support Services
W. McCoy	Manager, Quality Performance
R. Mecredy	Vice President, Ginna Nuclear Production
G. Meier	Manager, Production Division Training
R. Peck	Public Relations
T. Powell	Manager, Risk Management Department
W. Scheouder	Vice President, Employee Resolutions, Public Affairs
T. Schuler	Operations Manager
R. Smith	Senior Vice President, Production and Engineering
S. Spector	Plant Manager
R. Watts	Director, Coprorate Radiation Protection
J. Widay	Superintendent, Ginna Production
P. Wilkens	Manager, Nuclear Engineering Services
R. Wood	Supervisor, Nuclear Security

U.S. NUCLEAR REGULATORY COMMISSION

E. Greenman	Assistant Director for Region I Reactors, Division of Nuclear Reactor Regulation (NRR)
C. Hehl	Director, Division of Reactor Projects (DRP)
A. Johnson	Project Manager - Licensing, NRR
J. Johnson	Chief, Projects Branch No. 3, DRP
E. McCabe	Chief, Reactor Projects Section 3B, DRP
T. Moslak	Senior Resident Inspector
N. Perry	Resident Inspector

OTHER

E. Ierandi	Attorney, Nixon Hargrave
D. Tomb	Reporter, Democrat and Chronicle

ENCLOSURE 3

ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER N.Y. 14649-0001

ROBERT C. MECREDY
Vice President
Ginna Nuclear Production

TELEPHONE
AREA CODE 716 546-2700

November 27, 1990

Mr. Thomas T. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Subject: Systematic Evaluation of Licensee Performance (SALP)
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Martin:

This document provides our response to the NRC's October 26, 1990 transmittal of SALP Board comments, and includes the results of discussions held during our November 20, 1990 meeting on this subject.

RG&E has dedicated significant personnel and capital resources to attaining our goal of improving our operation and striving for excellence, operating a safe and economic nuclear unit throughout its present operating license period and beyond. We are pleased that the NRC has recognized the many strides we have made toward this end, as reflected in the "improving" trends in Maintenance/Surveillance and Security. The SALP Board comments further suggest that major improvements have been made in several other categories, particularly Operations.

RG&E further recognizes that aggressive maintenance of high performance in our areas of strength, as well as improvements in all areas, must occur in order for us to realize our goal. Many program areas, such as Configuration Management and Procedural Upgrades, have been initiated but must be maintained at a high level of effort in order to demonstrate their effectiveness.

Specific comments relative to the individual SALP categories are provided in the attached report. We look forward to working with the NRC in the future to ensure that our mutual goals of maintaining a consistently high safety level in all areas at Ginna Station are attained.

Very truly yours,

Robert C. Mecredy

GJW\127

Attachment

xc: U.S. Nuclear Regulatory Commission (original)
Document Control Desk
Washington, D.C. 20555

Allen R. Johnson (Mail Stop 14D1)
Project Directorate I-3
Washington, D.C. 20555

Ginna Senior Resident Inspector

Attachment - RG&E comments relative to individual 10/26/90 SALP Categories

A. Plant Operations:

We would like to acknowledge your assessment of our performance in plant operations. The identified strengths and opportunities for improvement parallel our self-assessment. You have recognized our operators knowledge, competence, and professionalism in the operation of our facility.

Although we will continue to pursue excellence in the stated strengths, detailed plans for improvements have already been instituted to address independent verification, procedure adherence, and housekeeping.

As correctly stated in your report, a task force was established to address independent verification and procedure adherence. This task force, comprised of the plant manager and a large cross-section of staff personnel, has been meeting regularly since March 1990. Final approved procedure changes and Phase 1 of our Training Program have been completed. While developing our longer term improvement program, it should be noted that immediate corrective actions involving interim procedure changes were implemented. Procedure A-1408, "Independent Verification" was revised and made effective in May 1990. Procedure A-503 "Procedure Adherence" has also been revised and implemented. The improvements as noted in your report resulted from these interim corrective actions.

Our shop area housekeeping is being improved, striking a balance between the need for tool storage and controlled work spaces.

We will continue to utilize our knowledgeable, competent and professional operating staff to meet the challenge of the future. We believe that we demonstrated substantial improvement during this SALP period, that we are on the threshold of being a superior performer, and will not be satisfied until this performance is fully realized.

B. Radiological Controls:

RG&E is pleased that, for the most part, we were able to maintain adequate staffing of the radiological controls program, provide adequate training programs, and provide a good program for monitoring and minimizing internal and external exposures. We do take pride in the success of our efforts to reduce cumulative annual personnel exposures, particularly through the effective use of mock-ups, and our successful corrective action to decrease the number of personnel contamination events.

We also recognize the need for further self-improvement and have instituted plans to achieve this.

Our staffing has been augmented with eight additional technicians. The selection process for two of the three Health Physicists has been completed with offers pending.

Our training program has been expanded to offer individual radiation monitoring to selected personnel. Monitoring requirements for steam generator entries have been reevaluated to conservatively assess accumulated dose.

Tracking of internal exposures has been changed to reflect implementation of new methodology to conservatively assess Maximum Permissible Concentration (MPC) hours.

We had previously taken the initiative to develop and formalize a quality control position for our primary, secondary, environmental chemistry and countroom activities. It should be noted that QC procedures were in effect in the Radiochemistry Laboratory throughout the SALP period, contrary to the statement in the report. In addition, as noted in NRC Inspection Report 90-16, we have in place many of the elements of an overall laboratory QA/QC program. We acknowledge that implementation of these procedures in the Environmental Lab is still in need of improvement.

We acknowledge that a violation resulted due to non-compliance of a radwaste shipment, and we have enhanced our radwaste resin shipment program to include procedure changes and equipment upgrades.

We believe we have made strides, particularly toward the end of the SALP period, to improve our overall controls of the Radiological Protection program, and anticipate both qualitative and quantitative benefits to result.

C. Maintenance/Surveillance

RG&E concurs with the NRC Assessment of the Maintenance/ Surveillance functional area. RG&E appreciates NRC recognition of our strengths and improving trend.

Our improved Maintenance/Surveillance Effectiveness has been achieved through knowledgeable, conscientious individuals who strive for excellence in their overall performance. This improved level of performance has been achieved by applying knowledge, skill and initiative toward accomplishing performance and organizational objectives. Our proactive efforts to perform self assessments and upgrade our work control system, procedures, and optimize our Preventive Maintenance Program via the Reliability Centered Maintenance Project are achieving their expected results.

Your insight is valuable in our assessment and oversight for continuous improvement. Comprehensive actions are being planned or have already been implemented to address weaknesses addressed by this SALP Report.

Our corrective actions for identified weaknesses in the Sling Inspection Program, Training, Records Retrievability, Surveillance, and Procedure Adherence areas will address the root cause of the problem(s) and prevent recurrence.

Management attention and involvement will continue to be readily evident and will continue to place emphasis on superior performance of Maintenance/Surveillance activities.

In the next period, we will maintain our aggressive posture and commitment to maintain the highest standards and achieve the highest category rating.

D. Emergency Preparedness:

RG&E concurs with the Emergency Preparedness strengths identified in the SALP Report, and attributes these strengths to our continued emphasis on management support and involvement in maintaining program effectiveness. We also believe our performance reflects widespread cooperation being fostered among participating RG&E departments, and among external supporting agencies at the local, state, and federal level. We are striving to improve the Emergency Preparedness program wherever possible through continuous upgrades, when considered necessary, in our equipment, procedures, and training as well as through the exchange of ideas with our industry counterparts. In the next SALP review period, we are challenging ourselves to improve our overall emergency readiness by bettering the effectiveness of our training and drills. RG&E's management is committed to maintaining superior performance in this area, and will ensure that we maintain the excellent working relationships necessary to achieve that performance.

E. Security

While the SALP Report concluded that our security program is "Improving", it did identify certain limited weaknesses which we address here. It was pointed out that there has been a slow response to the correction of a few hardware problems, and it must be explained that stringent engineering analysis has been required to ensure that the ongoing systems upgrade project is not adversely impacted. Compensatory measures are implemented as required. A method for documenting changes in training for Crucial Tasks is being developed to address the Board's concern relative to the introduction of lessons learned into the Training and Qualification Plan. Finally, the Quality Assurance group has also recognized the need for performance

based assessment and has utilized a consultant specialist to assist addressing this concern in the most recent security audit. It is anticipated that management's ongoing commitment to the security systems upgrade project and their support of security force development will be reflected in continued improvement and a return to superior performance.

F. Engineering/Technical Support

RG&E agrees with the many examples cited of strong technical support for Ginna Station, and is pleased that the NRC has recognized the high level of engineering and licensing expertise of RG&E personnel. RG&E also acknowledges improvements that are needed in engineering assurance to achieve high standards which we set for ourselves and are expected in the nuclear industry. Assessments conducted by both internal and external groups are being used to recommend improvements in our engineering processes and procedures which will address shortcomings identified during the SALP period. Communications between our offsite engineering department and the onsite technical support group have been formalized to assure that potential safety issues are documented and evaluated through the used of procedure QE-1603, "Documenting and Reporting Potential Conditions Adverse to Quality". We also expect to make other significant improvements in our processes during the current SALP period to better control, closeout and track design changes for the station.

It should be noted that, although RG&E is planning to participate in the Westinghouse two-loop Design Basis Documentation (DBD) coordinated effort, present plans do not include the completion of an RHR System DBD in 1990. Our Design Basis efforts will, however, be increased in conformance with our integrated Configuration Management Program.

As acknowledged by the SALP Board, RG&E has initiated several significant program upgrades, and we are anxious to demonstrate their effectiveness in our future design efforts.

G. Safety Assessment/Quality Verification

We agree with the NRC's assessment that improved performance occurred in this area, as indicated by the high quality submittals to the NRC, safety-conscious responses to NRC generic issues, and rapid and comprehensive evaluations of potential safety issues. We further concur with your comments that self-assessment concerns identified by Quality Performance need to be tracked to completion. We acknowledge the length of time required to complete the license amendment cycle for the Auxiliary Feedwater System, but must point out that administrative controls were in place to ensure conservative operability of the system in this time period. We have also

implemented comprehensive changes in our procedure adherence and independent verification requirement. The procedures have been upgraded and approved, and training of appropriate personnel in these areas has been conducted. A complete review and enhancement is still going on to update all plant procedures to the new independent verification requirements.

ENCLOSURE 4

NUCLEAR REGULATORY COMMISSION

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE (SALP)

R. E. GINNA NUCLEAR POWER PLANT

6/1/89 - 9/30/90

REPORT 50-244/89-99

AGENDA
NRC INTRODUCTORY REMARKS: C. W. HEHL, DIRECTOR, DIVISION OF REACTOR PROJECTS
RG&E INTRODUCTORY REMARKS: R. SMITH, SENIOR VICE PRESIDENT
NRC SALP PROCESS DISCUSSION: J. JOHNSON, CHIEF, PROJECTS BRANCH 3
NRC SALP REPORT DISCUSSION: E. McCABE, CHIEF, PROJECTS SECTION 3B (RG&E TO COMMENT ON EACH AREA)
RG&E CLOSING REMARKS: R. SMITH
NRC CLOSING REMARKS: C. W. HEHL

SALP OBJECTIVES

- IMPROVE PERFORMANCE.
- FOCUS ON MANAGEMENT EFECTIVENESS.
- IMPROVE NRC RESOURCE USE.
- IMPROVE NRC PROGRAM.

EVALUATION CRITERIA

- ASSURANCE OF QUALITY (INCLUDING MANAGEMENT INVOLVEMENT & CONTROL).
- SAFETY APPROACH TO TECHNICAL ISSUE RESOLUTION.
- ENFORCEMENT HISTORY.
- OPERATIONAL EVENTS: RESPONSE, REPORTING, ANALYSIS, AND CORRECTIVE ACTIONS.
- STAFFING (INCLUDING MANAGEMENT).
- TRAINING AND QUALIFICATION EFFECTIVENESS.

PERFORMANCE CATEGORIES

1. - SUPERIOR -
? REDUCE INSPECTION ?

2. - GOOD -
? NORMAL INSPECTION ?

3. - ACCEPTABLE -
? INCREASE INSPECTION ?

IMPROVING = Improving during period.

DECLINING = Declining during period, & no meaningful correction.

THE PURPOSE OF THIS MEETING IS TO DISCUSS THE SALP BOARD REPORT.

AFTER CONSIDERING RG&E COMMENTS ON THE SALP BOARD REPORT, THE NRC WILL ISSUE THE FINAL SALP REPORT.

OPERATIONS

+ OPERATOR PERFORMANCE

+ EOP QUALITY & USE

+ MGMT TOURS, INVOLVEMENT

+ P&ID & LABELING UPGRADING

+ IMPROVED HOUSEKEEPING

+ FIRE PROTECTION

~ IMPROVED REQUALIFICATION

~ BETTER PROCEDURE ADHERENCE

~ INDEPENDENT VERIFICATION

CATEGORY 2

RADCON

+ EXPOSURE CONTROL; ALARA

+ IMPROVED FINDING RESPONSES

+ WASTE/XPORT/EFFLUENTS QA/QC

~ STAFFING, & FIELD SUPERVISION

~ TRAINING

- NO REMP QC PROCEDURES

+ RADCHEM LAB QC

CATEGORY 2

KEYS: (1) VACANCIES; (2) TRAINING

MAINTENANCE/SURVEILLANCE

+ STAFF COMPETENCE, STABILITY

+ IMPROVED SUPERVISORY OBSERVATION

+ MGMT SPT: PROGRAM & EQUIP UPGRADES
(e.g., RCM, procedure upgrading, equipment replacements)

+ MAINTENANCE INTERFACES (exc TRNG)

+ HOUSEKEEPING (IN-PLANT)

+ BACKLOG & TEST EQUIP CONTROL

~ MAINT RECORD RETRIEVABILITY

~ AS-FOUND STATUS DOCUMENTATION

~ STD TEST PRACTICE & DATA DOCUMENTATION

~ TEST PROCEDURE DETAILS

CATEGORY 2, IMPROVING

FORMALIZATION INITIATIVES EVIDENT

EMERGENCY PREPAREDNESS

+ EMERGENCY EXERCISE (NO WEAKNESSES)

+ MGMT INVOLVEMENT & QUALS

+ STATE & COUNTY INTERFACES

+ IMPROVED STAFFING

+ PLANS & PROCEDURES (UPGRADES/REVIEWS)

+ SIMULATOR USE, FREQUENT DRILLS

+ TECHNICAL ISSUE RESOLUTION

+ ERO TRAINING & QUALIFICATIONS

CATEGORY 1

SECURITY

+ SOUND PROGRAM, MGMT SUPPORT
  (e.g. maintenance, perimeter detection, lighting)

+ MGMT PARTICIPATION IN TRAINING

+ STAFF INCREASES, STABILITY

+ TRAINING, & STAFF KNOWLEDGE

~ LESSONS LEARNED TRAINING

~ COMPLIANCE-ORIENTED SELF-AUDIT

- ACCESS CONTROL VIOLATIONS

- SLOW CORRECTIVE ACTIONS

CATEGORY 2, IMPROVING

MANAGEMENT ATTN => + TREND

ENG/TECH SUPPORT

+ MODS REVIEW & IMPLEMENTATION

+ IMPROVED 50.59 REVIEWS

+ CONFIG MGMT PGM INITIATED

+ SUPPORT OF MAINT & LICENSING
(ISI, IST, fuel leaks)

+ EROSION/CORROSION, SG PGMS

+ STAFFING INCREASES

~ ENG ASSURANCE (e.g. Eng calc updating)

- SI BLOCK SWITCH PROB

CATEGORY 2

UPGRADE EFFECTIVENESS NOT YET SHOWN

SAFETY/QUALITY

+ SOUND SAFETY PERSPECTIVE

+ QA REORG, STRONGER CONTROLS

+ BETTER ACCEPTANCE CRITERIA

+ LEAKY FUEL => CORE OFFLOAD

+ IMPROVED ENGINEERING DEPTH

+ TECHNICAL EVALUATION QUALITY

+ TURBINE TRIP DEFICIENCY REVIEW

~ INDEPENDENT VERIF TRAINING

- INDEP VERIF PROB FOLLOW-UP

CATEGORY 2

OVERALL SAFE & CONSERVATIVE PERFORMANCE.

GENERALLY IMPROVED STAFFING, TRAINING, ADHERENCE TO PROCEDURES, & HOUSEKEEPING.

CORPORATE MANAGEMENT INVOLVEMENT & ONSITE PRESENCE EVIDENT.

PERFORMANCE SUMMARY

AREA	RATING
OPERATIONS	GOOD
RADCON	GOOD
MAINTENANCE	GOOD, + Trend
EMERG. PREP.	SUPERIOR
SECURITY	GOOD, + Trend
ENGINEERING	GOOD
QUALITY/SAFETY	GOOD

PLANT OPERATIONS

- INTRODUCTION

- CURRENT STRENGTHS
  - WORKFORCE
  - EMERGENCY OPERATING PROCEDURE

- OPPORTUNITIES FOR IMPROVEMENT
  - PROCEDURE ADHERENCE
  - INDEPENDENT VERIFICATION
  - HOUSEKEEPING
  - OPERATOR REQUALIFICATION

- CLOSING REMARKS

RADIOLOGICAL CONTROLS

- INTRODUCTION

- STRENGTHS
  - PERSONAL CONTAMINATION REDUCTION
  - MAN-REM REDUCTION

- OPPORTUNITIES FOR IMPROVEMENT
  - STAFFING
  - SUPERVISORY OVERSIGHT
  - TRAINING
  - QUALITY CONTROL PROGRAMS

- CLOSING REMARKS

NRC SALP REPORT 89-99

MAINTENANCE/SURVEILLANCE

Thomas A. Marlow
November 20, 1990

SLINGS INSPECTION PROGRAM

ISSUE

- SLINGS OVERDUE FOR INSPECTION

ACTION PLANS FOR IMPROVEMENT

- ANNUAL COLOR CODE SCHEME
- SIGNS POSTED IN PLANT LOCATIONS
- TRAINING UPGRADE
- PROCEDURES UPGRADE

TRAINING

Issues

A. MAINTENANCE TRAINING ADEQUACY

B. INVOLVEMENT AND COMMUNICATIONS

C. LESSON PLANS UPGRADE

ACTION PLANS FOR IMPROVEMENT

A. FUNCTIONAL ORGANIZATIONAL REVIEW

B. GOALS AND OBJECTIVES

C. MATERIAL AND CONTENT UPGRADE

RECORDS

ISSUE

- RETRIEVABILITY OF RECORDS

ACTION PLANS FOR IMPROVEMENT

- RECORDS MANAGEMENT TASK FORCE
- RETAIN MAJOR DOCUMENTS
- COMPUTER DATABASE CROSS REFERENCE

SURVEILLANCE

ISSUES

A. TRENDING OF PMT TEST DATA

B. SAFETY RELIEF VALVE PROCEDURES AND PRACTICES

C. TDAFWP CHECK VALVES

D. DC VOLTMETERS NOT CALIBRATED

ACTION PLANS FOR IMPROVEMENT

A. DEVELOPING INTEGRATION AND NETWORKING STRATEGY

B. RELIEF VALVE TASK GROUP

C. POSITION INDICATORS

D. METERS CALIBRATED

PROCEDURE ADHERENCE

ISSUE

CONTINUING PROBLEM WITH PROCEDURE ADHERENCE

ACTION PLANS FOR IMPROVEMENT

- CALIBRATION PROCEDURES
- MAINTENANCE PROCEDURE UPGRADE PROJECT
- PROCEDURE ADHERENCE TRAINING

SUMMARY

INITIATIVES

- PROGRAMS
- PROCEDURES
- TOOLS
- TRAINING

RESULTS

- SUPERIOR PERFORMANCE
- SAFE AND RELIABLE

SECURITY

SALP PERIOD 5/89 - 9/90

CATEGORY 2 IMPROVING

IMPROVEMENTS:

- EQUIPMENT UPGRADES
- STAFFING
- MANAGEMENT OVERVIEW
- DAY-TO-DAY SUPERVISION

WEAKNESSES:

- SLOW IMPLEMENTATION PROCESS
- FAILURE TO INCORPORATE LESSONS LEARNED
- INTERNAL AUDIT COMPLIANCE BASED

COMMITMENT:

- SYSTEMS UPGRADE
- SECURITY PLAN REVISION
- CONTINUED HIGH STANDARDS FOR SECURITY FORCE

Rochester Gas and Electric
SALP Meeting
11/20/90

ENGINEERING/TECHNICAL SUPPORT

Strengths and Areas of Progress

Outage Planning
Modification Turnover Improvements
Minor Mod Coordination and Practices
Coordinated Programs
Configuration Management

Rochester Gas and Electric
SALP Meeting
11/20/90

ENGINEERING/TECHNICAL SUPPORT

Weaknesses

Engineering Assurance

Self Assessment - Internal Experienced Team
External Assessment - Different Perspective
Industry Interaction
Procedure Upgrade

Communication

Some Interactions Better Than Others

Procedure Developed for Potential Conditions Adverse to Quality

Technical Manager Represented on Engineering Assurance/Procedure Committee

Major Improvements

- Management Use of Quality Organizations

- Performance Based Audits

- Involvement In Planning

Resolution of Concerns

- Self Assessment Tracking

- Tech Spec Submittals

- Independent Verification/Procedure Adherence

ENCLOSURE 5

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406

Docket No. 50-244

OCT 2 6 1990

Rochester Gas and Electric Corporation
ATTN: Dr. Robert C. Mecredy
Vice President
Ginna Nuclear Production
49 East Avenue
Rochester, New York 14649

Gentlemen:

Subject: Systematic Assessment of Licensee Performance (SALP) Report 50-244/89-99

The enclosed report transmits the results of the R. E. Ginna Nuclear Power Plant SALP Board Meeting conducted on October 3, 1990. We will discuss this SALP with you at a public meeting at your onsite training facility at 1:30 p.m., November 20, 1990. At that meeting, please be prepared to discuss our assessment and any plans you may have to improve performance.

Following our meeting and receipt of your written response if needed, the final SALP Report and your response will be placed in the Public Document Room. In view of the time available for your review of this SALP prior to the public meeting, we request that you provide your written comments, if any, within 7 days of our SALP discussion meeting with you. That will permit more timely promulgation of the Final SALP Report.

Thank you for your cooperation.

Sincerely,

Thomas T. Martin
Regional Administrator

Enclosure: SALP Report No. 50-224/89-99

cc w/encl:
Harry H. Voigt, Esquire
Central Records (4 copies)
Director, Power Division
Chairman Carr
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
K. Abraham, PAO (14 copies)
Ginna Hearing Service List
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New York, Department of Law
State of New York, SLO Designee

ENCLOSURE 6

ERRATA SHEET

PAGE	LINE	NOW READS	SHOULD READ
6	15-19	In the Radiological and Environmental Monitoring Program area, basic QC procedures were absent and there was little evidence of QC in the Radiochemistry Laboratory, although the Environmental Laboratory was under the direction of the same radiochemist.	In the Radiological and Environmental Monitoring Program area, basic QC procedures were absent and the QC applied in the Radiochemistry Laboratory was not evident in the Environmental Laboratory, although both were under the direction of the same radiochemist.

Basis: To provide corrected information on QC in the Environmental and Radiochemistry Laboratories per RG&E letter to T. T. Martin dated November 27, 1990; response to NRC's October 26, 1990 SALP Board comments.