ENCLOSURE 2

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

INSPECTION REPORT 50-244/86-99

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

ASSESSMENT PERIOD: JUNE 1, 1986 - NOVEMBER 30, 1987

BOARD MEETING: JANUARY 12, 1988

TABLE OF CONTENTS

TABLES

I. INTRODUCTION

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

A NRC SALP Board, composed of the staff members listed below, met on January 12, 1988 to review the collection of performance observations and data to assess the licensee performance in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance". A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance at R. E. Ginna Nuclear Power Plant for the period June 1, 1986 to November 30, 1987.

SALP Board Members

Board Chairman

W. Kane, Director, Division of Reactor Projects (DRP)

Members

S. Collins, Deputy Director, DRP (Part-Time)
W. Johnston, Acting Director, Division of Reactor Safety (DRS)
T. Martin, Director, Division of Radiation Safety and Safeguards (DRSS)
L. Bettenhausen, Chief, Projects Branch 1, DRP
R. Wessman, Director, Project Directorate 1-3, NRR
C. Cowgill, Chief, Reactor Projects Section (RPS) 1A, DRP
T. Polich, Senior Resident Inspector, Ginna
C. Stahle, Licensing Project Manager, NRR
J. Durr, Acting Deputy Director, DRS

Other Attendees

G. Marcus, Technical Assistant to Commissioner Rogers
B. Clayton, Regional Coordinator, EDO
N. Perry, Resident Inspector, Ginna
C. Marshall, Resident Inspector, Nine Mile Point (Part Time)

II. CRITERIA

Licensee performance is assessed in selected functional areas, depending on whether the facility is in a construction, preoperational, or operating phase. Each functional area normally represents areas significant to nuclear safety and the environment, and are normal programmatic areas. Special areas may be added to highlight significant observations.

The following evaluation criteria, where appropriate, were used to assess each functional area:

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

Based upon the SALP Board assessment, each functional area evaluated is classified into one of three performance categories. The definitions of these performance categories are:

Category 1. Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used so that a high level of performance with respect to operational safety or construction is being achieved.

Category 2. NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and reasonably effective so that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety or construction is being achieved.

The SALP Board may determine to include an appraisal of the performance trend of a functional area. Normally, this performance trend is only used where both a definite trend of performance is discernible to the Board and the Board believes that continuation of the trend may result in a change of performance level. Improving (declining) trend is defined as: licensee performance was determined to be improving (declining) near the close of the assessment period.

III. SUMMARY OF RESULTS

A. Overall Summary

The working level staff at the plant and in the corporate engineering offices continues to be well trained, experienced, and effective. The first line supervisors are experienced, technically competent, and capable. This effectiveness is reflected in the good operating record which included a low number of plant trips and high plant availability. These levels of the organization are primarily responsible for the performance exhibited during this SALP period. A strong corporate management and plant staff commitment to effective training is evident in many areas. Notwithstanding the good operating record, several areas were identified that, if not addressed effectively, could adversely affect future performance.

The middle level managers have had varying degrees of success in obtaining resources to assist and enhance the working level performance. The upper level plant and corporate management continue to support quality; however, several areas are of concern. The recommendations made by the previous SALP board continue to be deficiencies in this SALP period in that plant management involvement in housekeeping is not apparent and the QA and QC organizations are not effectively used as management tools to improve quality. The corporate engineering staff lacks depth in some technical areas and at times has problems interfacing effectively with plant operations in identifying and resolving problems and concerns. The licensee has no formal tracking system to ensure resolution of all identified problems and concerns.

B. Background

1. Licensee Activities

The facility operated at full power from the start of the evaluation period until June 26, 1986, when reactor power level was reduced to 46% to isolate a condenser to repair tube leaks. After plugging five (5) tubes the reactor power level was restored to 100% before the end of the day.

The power level remained at 100% until July 29 when the reactor was manually tripped due to an elbow rupture on a Moisture Separator Drain Line to a feedwater heater. The unit was restored to service on July 30 at 6:45 P.M. and tripped off line at 7:00 P.M. This was caused by an automatic reactor trip due to two faulty relays in the "A" train of the intermediate range blocking circuit. The plant was restarted on July 31, 1986 and was at 100% power on August 1, 1986.

On October 23, 1986, a reactor trip occurred when an I&C technician grounded out the power supply to steam generator wide range level. This caused a voltage transient on an instrument Bus which resulted in a Turbine Runback with subsequent reactor trip on high pressurizer pressure. The unit was restarted on October 24, 1986 and 100% reactor power level was achieved on October 25.

On November 28, 1986, a reactor trip on high pressure resulted when an operator inadvertently closed both main steam isolation valves while at 100% power. The reactor was brought critical later that day and achieved 100% power on November 29, 1986.

The reactor power level was maintained at full power until January 4, 1987. From January 4 to January 21 the reactor power level was decreased to maintain main feedwater pump suction pressure greater than 190 psig, due to higher differential pressures across the low pressure feedwater heaters caused by fouling of the tubes. From January 21 until February 6, 1987, power was reduced per the coast-down procedure.

On February 6, 1987, the plant was shutdown for the Annual Refueling and Maintenance outage. Outage critical path items included reactor refueling, reactor coolant pump seal inspection and repair, steam generator Eddy Current inspection and tube repair, and safeguards systems testing.

On February 20, 1987, both Emergency Diesel Generator (EDG) fuel transfer pumps became clogged while the EDGs were supplying on-site AC power. At the time this event occurred, reactor vessel water

level was at approximately the loop centerline with nozzle dams installed in the steam generator hot and cold legs. The Residual Heat Removal (RHR) System was in operation.

On March 2, 1987, approximately 10 inches of water was discovered in the Auxiliary Building subbasement (RHR pump room). At the time of the discovery, the RHR system was in operation.

The unit was returned to service on March 10, 1987 after completion of the Annual Refueling and Maintenance outage that lasted 32 days. The reactor power level was gradually increased in stages, reaching full power on March 15, 1987.

The reactor power remained at full power till May 9, 1987 when the reactor power level was reduced to 61% to effect repairs on a valve associated with one of the reheaters. The reactor power level was further reduced to 38% to facilitate the repairs. The power level was restored to 100% on May 11, 1987.

On September 14, 1987, a turbine runback caused a reduction in reactor power level to 33% due to a blown control power fuse in a Power Range Channel which in turn caused the north turbine stop valve to close. The plant was returned to full power after verifying turbine operability via surveillance testing.

On September 26, 1987, turbine control valves closed down causing a reduction in power to 90%. Four minutes later a closure of a turbine stop valve caused a further reduction to 45% power. The plant was returned to full power after verifying turbine operability. The plant remained at full power until the close of the SALP period.

2. Inspection Activities

One NRC resident inspector was assigned to the R. E. Ginna Nuclear Power Plant for the entire assessment period and a second resident inspector has been assigned since September, 1987. The total NRC inspection effort for the assessment period was 4168 hours (resident and region based) with a distribution in the appraisal functional areas as shown in Table 2. This represents 2779 hours on an annualized basis.

Special inspections were conducted as follows:

-- Region I Appendix R Team inspection, October 20-24, 1986.

-- Equipment Qualification Team Inspection, February 9-13, 1987.

Table 4 summarizes all inspection activities during the assessment period. Table 3 lists specific enforcement data.

This report also discusses "Training and Qualification Effectiveness" and "Assurance of Quality" as separate functional areas. Although these topics are used in the other functional areas as evaluation criteria, they are being addressed separately to provide an overall assessment of their effectiveness. For example, quality assurance effectiveness is assessed on a day-to-day basis by resident inspectors and as an integral aspect of each specialist inspection. Although quality work is the responsibility of every employee, one of the management tools to measure this effectiveness is reliance on inspections and audits. Other major factors that influence quality, such as involvement of first line supervision, safety committees, and worker attitudes, are discussed in each area, as appropriate.

Fire Protection was not evaluated as a separate functional area this assessment period due to reduced inspection effort. Fire Protection observations by the Appendix R team are discussed in the Engineering and Technical Support area and resident inspectors observations are included in the Plant Operations area.

Refueling and Outage Management was not evaluated separately this period due to reduced inspection during the one short duration refueling outage. The refueling outage is discussed in the Maintenance and Surveillance sections.

C. Facility Performance Analysis Summary

FUNCTIONAL AREA	CATEGORY LAST PERIOD	CATEGORY THIS PERIOD	RECENT TREND
A. Plant Operations	2	2	
B. Radiological Controls	1	2	
C. Maintenance	2	2	Improving
D. Surveillance	1	1	
E. Emergency Preparedness	2	1	
F. Security and Safeguards	1	1	
G. Refueling and Outage Management	1	**	
H. Licensing Activities	1	1	
I. Training and Qualification Effectiveness	2	1	
J. Engineering and Tech. Support	*	2	
K. Assurance of Quality	2	2	

* Not previously addressed as a separate category.
** Not evaluated separately this period.

D. Unplanned Shutdowns, Plant Trips, and Forced Outages

Date	Power Level	Description	Root Cause	Functional Area
07/29/86	100%	Manual Reactor Trip Due To Large Steam Leak (LER 86-004).	Original Design - Elbow Rupture On Main Steam Reheater Drain Line Due To Erosion And Improper Elbow Material	Engineering
07/30/86	25%	Reactor Trip Due To Relay Failures In An Intermediate Range Blocking Circuit (LER 86-005).	Component Failure - Age Related Failure of Westinghouse BFD Relays.	Assurance of Quality
10/23/86	100%	Turbine Runback And Reactor Trip When Replacing Instrument Power Supply (LER 86-008).	Personnel Error - Cognitive Error - Wire Slipped Out Of The Technician's Hand, Grounding The Power Supply And Causing A Runback And Reactor Trip.	Maintenance
11/28/86	100%	Reactor Tripped On High Pressure After Both Main Steam Isolation Valves (MSIVs) Were Closed at 100% Power (LER 86-011).	Personnel Error - Training - Due to Lack Of Control Board Familiarity. A Control Operator While Attempting To Close Containment Depressurization Valves Inadvertly Shut The MSIVs.	Plant Operations

NOTE: The root cause in the table is the opinion of the SALP Board based on the inspector(s) description of the event and may, in certain cases differ from the LER

IV. PERFORMANCE ANALYSIS

A. Plant Operations

1. Analysis

The licensee's performance was rated as Category 2 during the previous SALP rating period. Strengths discussed included use of Morning Priority Action Required (MOPAR) meeting, and a strong operator licensing training program. Improvements were noted in Licensee Event Reports (LERs) near the end of the last assessment period. The implementation of Emergency Operating Procedures (EOPs) and the establishment of a temporary modification control program were also viewed as improvements. Weaknesses included housekeeping, the number of reactor trips during the period, inadequate review and control of station activities and operational involvement in maintenance and shutdown planning. Recommendations included establishment and implementation of a formal program for routine housekeeping.

Routine resident and specialist inspections formed the basis for this evaluation.

The control room environment is generally formal, quiet, and controlled. A dress code has been established for all personnel who normally perform work in the control room. Control room access is limited to those personnel in the immediate process of work. Command and control in the control room has been good; however, one isolated case of poor command and control of an operator with minimum operating experience caused a reactor trip when the wrong switches were manipulated.

Management strongly supports programs that improve operator training and enhance immediate operational effectiveness. Plant management action is less aggressive toward housekeeping or when interface with corporate engineering is required. An overall operator performance improvement is reflected by the reduction in both the number of transients during startup and plant trips.

Corporate management continues to support the licensed operator training program, a college degree program for operators and control room human factors and habitability upgrades. The licensed operator examination results this period were good. All six Senior Reactor Operator (SRO) candidates and four of five Reactor Operator (RO) candidates passed; the remaining RO candidate failed one section of the examination. This was the first examination using the site specific simulator.

Corporate management continues to support a program that leads to a Bachelor of Science degree in Mechanical Engineering Technology from the Rochester Institute of Technology. There are currently

12 operators enrolled in the program, eight of whom are scheduled to receive their degrees in early 1988. During this assessment period, two former shift supervisors, who previously completed this program, have taken positions as Station Engineers providing an SRO perspective to modifications and outage planning. A third is currently assigned to the Maintenance Department to review Maintenance Work Requests.

Human factors modifications to the control room and control board were completed during this period. These modifications included a new control room lighting system and color coded control board labels and markings. The improvements have added to a more professional control room decorum.

Problems and anomalous conditions that affect plant operation are generally discussed or resolved at the MOPAR meetings. The meetings are well attended by the various disciplines on site and corporate management is frequently present.

Plant management has acknowledged discrepancies in P&IDs, Auxiliary Building subbasement floor drain flooding potential, Intermediate Building subbasement ground water inflow and DC fuse anomalies. The weak interface between plant operations and corporate engineering as well as the backlog of work (see Engineering and Technical Support section) has contributed to the long delays in pursuing a resolution to these items.

The plant operated from the startup from the refueling outage in March 1987 until the end of the assessment period without a trip. Overall operator performance has been good. However, operator errors or inattentiveness have resulted in some incidents.. All of these incidents were evaluated as personnel errors or procedure deficiencies: 1) a major portion of Fire Detection and Automatic Suppression System was disabled when two non-licensed operators failed to follow procedures while disconnecting a fire zone from service; 2) four individual rod position indicators differed from group demand indication by more than allowable number of steps and went unnoticed by operators for 16 hours; and 3) a reactor trip occurred when an inexperienced licensed operator was attempting to close the containment depressurization valves.

Format and content of Licensee Event Reports (LERs) submitted over the report period improved in general. Although LERs are still written by the responsible department, standardizing the format and including more detailed cause and analysis sections has better focused the corrective actions in most cases. One LER required a revision due to the failure to correctly report the duration of a condition.

A lack of site management oversight of the temporary modification program implemented last assessment period was evident. Review responsibility for safety evaluations of temporary lead shielding and scaffolding installations was delegated to the individual initiating the work in most cases, resulting in failure to perform adequate safety evaluations and failure to obtain the required Plant Operations Review Committee (PORC) review. Although the temporary modification program was initiated during the last assessment period the program had not been reviewed or audited by the licensee's QA organization.

The plant personnel demonstrated an increased awareness of fire protection concerns and there was good rapport between the fire protection staff and licensee management. Fire brigade training continues to be effective and coordinates the actions of both the operations and security force members.

The licensee established a program for routine housekeeping as recommended in the last SALP report. However, under the program it is the responsibility of the duty engineer and the fire and protection coordinator to make weekly tours of the plant. This program was ineffective as evidenced by continued cyclic housekeeping and lack of management involvement.

In summary, plant operations continue to be a licensee strength as indicated by a high plant availability, an improved record on reactor trips, and a strong corporate and site management commitment to training. However, several personnel errors indicate the need for continued attention to detail in the conduct of operations. A weak interface with corporate engineering had delayed the resolution of several engineering issues. LER reporting improved although the responsible department still writes the reports. A lack of corporate management oversight of the temporary modification program was evident by several missed safety evaluations. Housekeeping continued to be cyclic, especially in the radiologically controlled areas of the plant. This was noted as a weakness during the previous SALP period and site management efforts to improve housekeeping have been ineffective this period.

2. Conclusion

Category 2.

3. Board Recommendation

See Assurance of Quality.

Radiological Controls

1. Analysis

This area was rated as Category 1 during the previous assessment period. Program strengths were noted in a fully staffed and highly qualified radiation protection organization with effective cooperation and communication with other site groups. However, minor weaknesses noted included outdated training materials, lack of instructor training, lack of ALARA design reviews and procedural weaknesses in regards Special Work Permits, effluent controls, and radioactive material shipping.

During this assessment period there were four routine radiation safety inspections, one transportation and two effluent control and nonradiological chemistry inspections. The resident inspectors routinely reviewed these program areas. In general, program strengths noted during the previous period continued to contribute to a good health physics program. However, a need for improvement in site management emphasis on full compliance with site procedures, dedicating resources to upgrading certain procedures, and level of performance in the resolution of technical issues were noted this period.

Radiation Protection (RP)

The radiation protection program has provided an acceptable level of protection for workers. The highly experienced and qualified site staff continues to effectively plan and conduct outage radiological operations and incorporate ALARA into work planning. However, site management does not always effectively use procedures and policies to control and direct site radiation protection activities. Examples include:

- The licensee initiated a Controlled Area Incident Log (CAIL) to obtain information regarding radiological incidents. However, no formal guidance has been issued on the use of CAIL.

- A check source was removed from a process radiation monitor but the test procedure was not revised.

- An ALARA checklist for engineering modification has been in development for a few years but is not issued.

- There are no procedures available for routine air sampling in the plant or use of the SRM-100 personnel frisker.

- Differences were noted between frisking instructions given to workers at the access control and the written frisking procedure.

B. Radiological Controls

1. Analysis

This area was rated as Category 1 during the previous assessment period. Program strengths were noted in a fully staffed and highly qualified radiation protection organization with effective cooperation and communication with other site groups. However, minor weaknesses noted included outdated training materials, lack of instructor training, lack of ALARA design reviews and procedural weaknesses in regards Special Work Permits, effluent controls, and radioactive material shipping.

During this assessment period there were four routine radiation safety inspections, one transportation and two effluent control and nonradiological chemistry inspections. The resident inspectors routinely reviewed these program areas. In general, program strengths noted during the previous period continued to contribute to a good health physics program. However, a need for improvement in site management emphasis on full compliance with site procedures, dedicating resources to upgrading certain procedures, and level of performance in the resolution of technical issues were noted this period.

Radiation Protection (RP)

The radiation protection program has provided an acceptable level of protection for workers. The highly experienced and qualified site staff continues to effectively plan and conduct outage radiological operations and incorporate ALARA into work planning. However, site management does not always effectively use procedures and policies to control and direct site radiation protection activities. Examples include:

- The licensee initiated a Controlled Area Incident Log (CAIL) to obtain information regarding radiological incidents. However, no formal guidance has been issued on the use of CAIL.
- A check source was removed from a process radiation monitor but the test procedure was not revised.
- An ALARA checklist for engineering modification was under development for the past several years but was not issued until September 1987.
- Procedures were not available during most of the report period for calibration of the SRM-100 personnel frisker or for routine air sampling.
- Differences were noted between frisking instructions given to workers at the access control and the written frisking procedure.

- There is no method to highlight changes to procedures for personnel who must implement the procedures.

- The HP organization described in station procedures was not changed to coincide with the organization specified in the revised Technical Specifications until late in the period.

- Containment high range radiation monitors were improperly calibrated.

- Extremity dose records needed to be corrected to include the non-penetrating dose to the extremities.

- Corporate ALARA meetings were not held at the established frequency.

Similar types of problems were also noted in the previous SALP assessment.

The licensee self-audits have significant improvement and are generally complete and thorough. The use of RP experts on the audit team has increased the technical depth of the audits. However, these audits did not identify the weaknesses regarding policies and procedures noted above.

The approach to RP safety issues has been inconsistent with regard to technical depth of reviews and appropriateness of resolution. For example, the plant radiation sign postings are very good as are the records of routine radiation surveys. High exposure jobs receive increased attention from supervision and are closely tracked to ensure good performance. Examples of failure to follow procedures and nonconservative approach to technical resolution of issues include:

- Unnecessary exposure to tritium occurred to refueling workers when the air purge and exhaust system was secured for maintenance during the outage.

- A filtered exhaust system was not attached to a decontamination facility due to a shortage of equipment.

- Housekeeping and contamination control in radiologically controlled areas was marginally adequate.

- Personnel were observed improperly using protective clothing.

- Reused rubber boots kept in a self-service barrel at the step-off pad are not periodically checked for contamination or hot particle buildup.

- The HP organization described in station procedures was not changed to coincide with the organization specified in the revised Technical Specifications until late in the period.

- Containment high range radiation monitors were improperly calibrated.

- Extremity dose records needed to be corrected to include the non-penetrating dose to the extremities.

- Corporate ALARA meetings were not held at the established frequency.

Similar types of problems were also noted in the previous SALP assessment.

The licensee self-audits have significant improvement and are generally complete and thorough. The use of RP experts on the audit team has increased the technical depth of the audits. However, these audits did not identify the weaknesses regarding policies and procedures noted above.

The approach to RP safety issues has been inconsistent with regard to technical depth of reviews and appropriateness of resolution. For example, the plant radiation sign postings are very good as are the records of routine radiation surveys. High exposure jobs receive increased attention from supervision and are closely tracked to ensure good performance. Examples of failure to follow procedures and nonconservative approach to technical resolution of issues include:

- Unnecessary exposure to tritium occurred to refueling workers when the air purge and exhaust system was secured for maintenance during the outage.

- A filtered exhaust system was not attached to a decontamination facility due to a shortage of equipment.

- Housekeeping and contamination control in radiologically controlled areas was marginally adequate.

- Personnel were observed improperly using protective clothing.

- Reused rubber boots kept in a self-service barrel at the step-off pad are not periodically checked for contamination or hot particle buildup.

Management support and commitment to ALARA appear good but goals are not aggressive or challenging. The total exposure this period was about 350 man-Rem which is the same level achieved during the past several years. An assessment of this exposure indicates that a large portion of it resulted from refueling and maintenance tasks. The licensee is projecting similar exposures for the next few years with some decline beginning about 1990. Management apparently is accepting the current level of performance without committing the additional resources or effort to reduce dose.

The training program continues to make a positive contribution to the RP program. Practice demonstrations regarding use of protective clothing and protocol for entering and leaving controlled areas were added to general employee training. A formal instructor qualification program has been added. Training procedures have been upgraded and improved and an excellent program for Steam Generator Crew Leader (high exposure work) had been added. Some minor weaknesses remain in the lesson plans for respiratory protection training which are being upgraded.

Radioactive Waste Management/Effluent Controls

The waste management program is generally effective. There is adequate assignment of responsibilities and chain of command reporting pathways. Procedures for control of activities related to solid radwaste classification were well stated, although a need for improvement in procedures related to the QC of the resin dewatering process was noted. Sources of radwaste were identified and sampled, and appropriate scaling factors were developed. Requirements of 10 CFR 61 for waste form and stability were met. Records related to the transportation and burial of radwaste were complete, well maintained and available.

A routine inspection of the liquid and gaseous effluent control program indicated that the licensee has been conducting an effective program. Releases were made in accordance with procedures and Technical Specification requirements. Semiannual Radioactive Effluent Release Reports were comprehensive and accurate. Effluent control instruments were maintained and calibrated in accordance with regulatory requirements, and ventilation systems were maintained and tested as required. Procedures related to the above areas were found to be adequate.

During this assessment period one independent measurement inspection was performed using the NRC:I Mobile Laboratory. All split sample results were in agreement between the licensee and the NRC. In general, the licensee's program of radioactivity measurements is adequate with respect to meeting Technical Specifications. Certain minor problems have a potential for programmatic impact if not corrected. Contrary to standard industry practice, both in-house and

independent measurement quality control checks on counting equipment and vendor services lack the thoroughness and frequency to assure constant accuracy and precision of measurements. During this period, the licensee had stated that participation in an independent QC sample program had been turned down by management. This indicates that management is not fully following up on NRC identified concerns. The licensee stated that attempts at program improvement would be made.

Another potential problem identified this period related to radiochemical analyses recordkeeping, as identified in LER 87-002. Analyses results from a Reactor Coolant System sample were not entered in the analyses log and thus not reviewed, resulting in lack of timely corrective action taken and a technical specification deviation. This indicates a lack of an adequate system to record and distribute needed technical information in a timely manner. Training of radiation chemistry technicians needs improvement. During the previous SALP period the training for technicians was noted as not being well defined. During this SALP period, 2 of 13 LERs noted personnel errors attributed to chemistry technicians during sampling procedures as a result of training weaknesses.

Water Chemistry Controls

Eleven (11) out of thirty (30) standard sample results were in disagreement during an inspection of the nonradiological chemistry program. The disagreements occurred for various reasons including graphical approximation of calibration curves rather than use of regression fits and poor calibration of the ion chromatograph on the low end of the curve. The licensee is investigating these problems. These findings indicate inattention to detail in laboratory quality control.

Environmental Monitoring

Although no on-site inspections of this program area were conducted, routine surveillance and event reports were reviewed. Those reviews indicated that a generally effective Radiological Environmental Monitoring Program was conducted by the licensee. Sampling frequencies, types of measurements, analytical sensitivities and reporting schedules generally complied with Technical Specification requirements. Selected off-site dose type calculations were reviewed and were within Technical Specification limits. The analyses of environmental data indicated that doses to humans from radionuclides of station origin were negligible.

Transportation of Radioactive Materials

The program for the shipment of solid radioactive waste was found to be effectively implemented with regard to selection of packaging, low level waste storage, and use of procedures. There was evidence of extensive involvement by QC personnel in the waste classification program.

A Quality Assurance audit review of solid waste transportation indicated one out of four open items remains open awaiting the purchase of a new computer system and software for evaluation of vendor data concerning waste classification. Audits were generally complete and thorough.

Training of radioactive waste QA and QC personnel appeared timely and adequate for the needs of the program. A minor weakness identified was the need to proceduralize retraining requirements.

In summary, licensee implementation of Radiological Control programs are generally effective, however minor problems were identified in many areas. Site management does not always effectively use procedures and policies to control site radiation protection activities. The widespread nature of these problems indicate lack of management oversight with lack of emphasis on detail. Training in the Radiological Controls area continues to make a positive contribution to the program; however, two personnel errors attributed to training weaknesses were identified this period. Licensee implementation of radwaste management, transportation, and chemistry programs was generally effective. However, there were some weaknesses identified in non-radiological and radiological chemistry laboratory QA/QC and in training of radiological laboratory chemistry technicians.

2. Conclusion

Category 2.

3. Board Recommendation

None.

C. Maintenance

1. Analysis

The previous SALP rating in this area was Category 2. Strengths included a well qualified work force, responsiveness to NRC initiatives and a commitment to improve maintenance activities. Weaknesses included vendor manual control, safety impacting balance of plant calibrations, record keeping and history files, and informal control of troubleshooting and maintenance activities.

Routine resident and specialist inspections formed the basis for this evaluation. This evaluation includes the maintenance activities performed during the refueling outage.

The weaknesses identified in the last SALP period have been addressed during the current period. The licensee has established a vendor manual control program and procedures for updating vendor manuals. A preventive maintenance schedule has been dedicated to balance of plant calibrations; however, these calibrations are tracked manually. Maintenance recordkeeping and history files are now being established as part of the computerized Maintenance Information System.

Troubleshooting and maintenance has improved in general. A documented plan of action is developed prior to beginning work except when immediate maintenance is required. Maintenance Department management is involved in the planning of all complex repair and troubleshooting activities. The methodical investigation process and root cause analysis used by the Maintenance Department has resulted in corrective actions that address good practices and go beyond compliance. The Maintenance Manager undertook a study and analysis of all known deficiencies and findings in the maintenance area and formulated a comprehensive maintenance upgrade program. Senior corporate management endorsed this program and approved increased resources to implement the program. Implementation commenced near the end of the SALP period.

The annual refueling outage was performed in 32 days. The major maintenance included reactor coolant pump seal inspection and repair, steam generator tube inspection and repair, installation of a microprocessor rod position indication system and boric acid piping replacement. The outage schedule was delayed four days due to additional steam generator sleeving that was required. One reportable event partially attributable to maintenance occurred during the outage and is described below.

Although maintenance and troubleshooting have improved, two significant failures to control maintenance activities occurred during this assessment period. These incidents also indicate a need for continued aggressive implementation of maintenance training, operations involvement in outage and maintenance planning, and the maintenance upgrade programs. These incidents involved Emergency Diesel Generator operation and valve maintenance.

During the refueling outage both Emergency Diesel Generator (EDG) fuel transfer pump suction strainers became clogged while the EDGs were supplying on-site AC power and off-site power was secured due to transformer maintenance. Although this was partially a design problem, poor maintenance practices while cleaning of the diesel fuel storage tanks and failure to periodically clean the strainer contributed to this event. The potential safety significance was increased due to plant configuration at the time of the event since the Residual Heat Removal system powered from the EDGs was the only readily available source of decay heat removal.

The other instance involved control of maintenance on a Motor Operated Valve (MOV) in the Containment Spray system. The multiple missed opportunities for operations personnel to identify the work request as safety related, improper classification of the work as non-safety related by a non-licensed maintenance reviewer, and a failure of the worker to identify the MOV as safety related and requiring post-maintenance testing contributed to this event. While this was an isolated case, it indicates the potential for problems in the future.

Additionally, a personnel error during maintenance resulted in a reactor trip. While performing a replacement of a Steam Generator Wide Range Level Channel power supply, an Instrumentation and Control (I&C) technician inadvertently dropped a ground lead which caused a voltage transient, a runback and a reactor trip. This was an isolated case and is not indicative of overall worker performance.

The reorganization and increased staffing of the Maintenance Department was started during the last part of the assessment period. A senior reactor operator was assigned to review all maintenance work requests and additional staffing increases are approved and the selection process to fill those positions is underway.

In summary, the licensee has taken positive steps to upgrade the maintenance program and improve its effectiveness. This was evident through the in-depth analysis and assessment of the trends in the maintenance area as indicated in the audit/inspection findings of various groups (including the NRC). The aggressive management attention to the maintenance area is, in itself, a positive development.

2. <u>Conclusion</u>

Category 2, Improving.

3. <u>Board Recommendation</u>

None.

D. Surveillance

1. Analysis

The previous SALP rating in this area was Category 1. Strengths included experienced technicians, clearly written surveillance procedures, good trending and data reviews, and a well managed inservice testing program. Weaknesses included control of measuring and test equipment, and leakage investigations triggered by indirect indication of RCS leakage.

Routine resident and specialist inspections formed the basis for this evaluation. This evaluation includes the surveillance activities performed during the refueling outage.

Technical Specification surveillance testing is performed by the Results and Test, Maintenance and Operations Departments. The scheduling of surveillance tests is performed by Results and Tests. Most of the licensee's inservice inspection (ISI) program is performed by the Materials Engineering and Inspection Services Section. Strong management oversight and support of the ISI program continues. Aggressive investigations and timely resolution of plant problems and industry issues were evident this period. The overall control of the surveillance test program has been good. The supervisory level reviews and data trending continue to be program strengths.

Evidence of strong management involvement is apparent in the way Inservice Inspection (ISI) open items are addressed by the licensee. The investigations of the Main Steam Reheater drain line elbow failure and testing for pipe wall thinning in response to the Surry feedwater line rupture were aggressive, well-managed efforts that provided timely results. Additional examples are the extensive measurements and calculations which were made to resolve a question concerning ultrasonic examination results, and the completely new and comprehensive procedures, in lieu of revisions, addressing Nondestructive Examination (NDE) personnel qualification. Provisions are made for proficiency testing of vendor NDE personnel by the licensee. The completeness and accuracy of current ISI data provides further evidence of licensee management involvement in ensuring that ISI activities are performed effectively.

The surveillance program procedures delineate responsibilities for maintaining and updating a master schedule reviewing and evaluating data, reporting and controlling deficiencies, performing the surveillances and restoring the equipment for normal operations. A few surveillances have been missed due to scheduling errors this period. In one case, a missed surveillance was discovered during the manual data trending process.

One instance of poor test control was observed during the refueling outage. The reactor trip logic test was stopped for the evening with the test only partially completed. Current simulators and resistor jumpers installed to meet initial conditions of the test were removed. When the test was resumed the next day the initial conditions were not reverified. The test deviation was not documented in the test procedure or the control room log. Further, this test was observed by a QC inspector who did not question the practice.

Surveillance tests are typically performed by experienced technicians. Control room operators are routinely briefed at the start of surveillance tests and kept appraised of testing anomalies as they occur. No reactor trips occurred during surveillance testing. However, one containment ventilation isolation resulted during a surveillance test of a radiation monitor. This was attributed to a frayed connecting wire (manufacturing discrepancy) in a newly installed monitor. The generic implications of the discrepancy were investigated; one other monitor with the same problem was identified and promptly fixed.

In summary, experienced technicians and supervisors continue to effectively implement the surveillance test program. Some personnel errors resulting in missed and poor test control have been shortcomings of an otherwise well managed surveillance test program. These shortcomings indicate some decline from the previous period. If allowed to continue these shortcomings could result in an overall degradation of performance. The licensee's ISI program is an effective well managed program that has aggressively pursued further improvement during this assessment period.

2. <u>Conclusion</u>

Category 1.

3. <u>Board Recommendation</u>

None.

E. Emergency Preparedness

1. Analysis

During the previous assessment period, licensee performance in this area was rated as Category 2. Several weaknesses were identified during the 1985 annual exercise in the dose assessment area. The new Corporate Emergency Preparedness Coordinator demonstrated responsiveness in resolving the NRC identified weaknesses during the last portion of the period.

During the current assessment period, one partial participation exercise and one full participation exercise were observed, two routine safety inspections were conducted, and changes to emergency plans and procedures were reviewed.

The two routine safety inspections were performed in August 1986 and April, 1987. These inspections examined all major areas within the licensee's emergency preparedness program. During the August 1986 inspection, a significant weakness was identified concerning the licensee's ability to notify the Emergency Response Organization (ERO) and staff in a timely manner. The licensee had already identified the problem and was addressing it. Additional minor weaknesses were noted in the audit program and training records management. Subsequent inspection identified no significant weaknesses. The licensee had undertaken corrective action on previously identified weaknesses, as well as other actions to strengthen the overall program.

A partial participation exercise was conducted on September 10, 1986. The licensee demonstrated a satisfactory emergency response capability. Actions by plant operators were prompt and effective. Event classification was accurate and timely. Personnel were generally well trained and qualified for their positions. No significant deficiencies were identified.

A full participation exercise was conducted on October 27, 1987. This exercise was unannounced and off-hours, and included NRC Region I participation as well as an ingestion pathway exercise. The licensee coordinated extensively with the State of New York, local counties, FEMA and NRC Region I during the preparation and conduct of this exercise. The licensee demonstrated a good emergency response capability. There were no weaknesses identified. Performance was noticeably improved over previous exercises.

The emergency preparedness program is administered by the Corporate Emergency Preparedness Coordinator (CEPC). The CEPC has no staff, however he does receive part time assistance from various individuals within the organization. The licensee has continued to improve throughout the assessment period. This improvement is as a

result of a high degree of management involvement in the emergency preparedness program, combined with the aggressive efforts of the CEPC. However, without a support staff extra attention by management is necessary to assure sustained performance.

In summary, the licensee's performance indicates that their training program has been effective as demonstrated by their continued improvement in their full participation exercise. Site and corporate management involvement has been generally effective as evidenced by timely completion of corrective actions. The licensee has been responsive to NRC concerns and has made considerable progress in these areas. However, a sustained high degree of corporate management involvement is necessary to provide support to the CEPC to ensure continuity of the problem.

2. Conclusion

Category 1.

3. Board Recommendation

None.

F. Security and Safeguards

1. Analysis

During the previous SALP period, the licensee's performance in this area was assessed as Category 1. Noteworthy attributes identified during that period included very good plant and corporate support for the security program, timely equipment upgrades and licensee initiatives in safeguards contingency preparedness.

During this assessment period, two routine unannounced physical security inspections and one routine unannounced material control inspection were performed by region-based inspectors. Routine inspections by the resident inspectors continued throughout this period.

Corporate security management continued to be actively involved in all site security matters, including visits to the site by corporate staff to provide assistance, program appraisals and direct support in the budgeting and planning processes affecting program modifications and upgrades. Security management personnel are also actively involved in Region I Nuclear Security Association and other industry groups engaged in nuclear plant security matters. This demonstrates program support and attention from upper management.

As in past SALP periods, the licensee utilized a self-appraisal program that is in addition to the NRC's required annual security program audit. The self-appraisal system allows management to identify potential problems early and take action to prevent their occurrence. This program, combined with the licensee's annual program audit, is a positive factor in the effectiveness of the security program and reflects management's commitment to a quality program.

The annual audit of the security program, performed by the licensee's quality assurance group, was comprehensive in scope and depth. Corrective actions on deficiencies identified during the audit were prompt and effective with adequate follow-up to ensure their proper implementation. However, the audit procedures permitted the auditors to forego a physical audit in certain areas if the areas had been found adequate during the previous audit and no modifications in those areas had been made since the previous audit. A problem occurred in that modifications were made in a storage area shading that area and adversely affecting the lighting requirements. The fact that the lighting system had not been modified allowed the auditors to forego a physical audit of the lighting. While the licensee promptly remedied the situation and committed to eliminate use of that provision, management review is warranted to preclude the use of short cuts in the future.

Review of the licensee's security event reports and reporting procedures found them to be consistent with the NRC's regulation, 10 CFR 73.71, and implemented by personnel knowledgeable of the reporting requirements. Two reports were received during the assessment period. One involved a bomb threat and the other concerned an equipment malfunction. The licensee's action in each case was prompt and appropriate, reflecting the proper degree of management oversight.

Management of the contract security force continued to be effective, as evidenced by the continued low turnover rate, high morale, a professional attitude toward job performance by members of the security force and a good enforcement record. Staffing of the licensee's security organization and the contract security force is adequate to meet the commitments in the NRC-approved security plan. The security force training and requalification program is well developed and effectively administered. This is apparent from the excellent job knowledge demonstrated by members of the security force during interviews by NRC personnel and few on-the-job errors. The initial and requalification training, as well as the self-appraisal program, measures the individual's retention of and proficiency in general and specific security program requirements, and provides valuable feedback into the training program. As part of its efforts to assess security program implementation, the licensee also conducted numerous Safeguards Contingency Plan drills that included active participation from the operations organization. Such drills further demonstrate the licensee's desire to implement and maintain an effective security program.

During a routine material control and accounting inspection, the licensee's annual inventory procedures for special nuclear material (SNM), maintained pursuant to NRC requirements, were found not to include neutron fission detectors which contain small quantities of SNM. The physical inventory of fission detectors was not conducted for three years. The licensee promptly corrected the deficiency, but to preclude similar problems in the future, management attention is needed to ensure that NRC requirements for all activities are documented in procedures, rather than left to the memory of individuals.

The licensee has also developed and implemented a comprehensive preventive maintenance and testing program for security related equipment. Corrective maintenance, when required, receives prompt attention with a priority that is established in concert with program needs.

In summary, the licensee continues to effectively manage and implement a security program that goes beyond regulatory requirements and security plan commitments. Continued evidence of management support for the programs is readily apparent in all aspects of program implementation.

2. Conclusion

Category 1.

3. Board Recommendation

None.

G. Licensing Activities

1. Analysis

During the last assessment period this area was rated as Category 1. Strengths included strong management support and participation in licensing matters that are related to NRR activities.

During the current rating period, the licensee's management continued to demonstrate active participation in licensing activities and kept abreast of all current and anticipated actions that may impact Ginna operations. This strong, active licensee participation resulted in the completion of 10 Technical Specification amendments. One major activity accomplished was revising the use of the term operability throughout the Technical Specifications. This was significant in that it eliminated the ambiguities in the Technical Specifications related to this subject. Also, an amendment was made dealing with a control rod indication system. The original analog rod position indication was replaced with a microprocessor rod position indication system that is considered superior to the previous equipment.

The licensee's management during this period has provided excellent support on the resolution of a large backlog of issues and is continuing its support to expedite the staff's reviews of these issues. The licensee was prompt in responding to the requests for additional information and always available to attend meetings. The licensee's timeliness and responsiveness was consistent. The licensee continues to maintain a dedicated, experienced technical capability in engineering and scientific disciplines necessary to resolve issues that are of concern to NRR. As necessary, such efforts are augmented by outside contractor support services. For example, the performance testing of the Ginna relief and safety valves, conducted in accordance with NUREG-0737, required further, extensive analysis because of the type of valves at Ginna. The additional work, with assistance from consultants, was completed promptly and efficiently such that the staff was able to close this issue. This work is also being utilized by the staff for other similar applications.

Several minor weaknesses were evident in the licensee's coordination of onsite and corporate office licensing activities. During the NRC review of a license request to revise the Technical Specifications on snubbers, some deficiencies in the snubber surveillance program were identified. The licensee was required to take prompt corrective measures to ensure the operability of the snubbers. These measures were carried out in a satisfactory, timely manner. Revisions to the Technical Specifications are still under NRC review. Also, during a routine testing on the quality of the diesel fuel, initial laboratory tests showed that the fuel was outside the range of acceptable values, as defined in the Technical Specifications. Subsequent analysis revealed that a faulty procedure for measuring

viscosity was responsible for producing the erroneous data and that the diesel fuel oil was actually within specification. Nevertheless, during the several hours of investigation and in the absence of any other information, this incident should have been considered as a reportable item under 10 CFR 50.72.

In summary, corporate management attention and involvement in NRC actions was aggressive and carried out in an effective manner, as demonstrated in the attention given to the backlog of licensing activities. Some weaknesses have been noted; however, they were not sufficient to detract from the overall effective manner in which licensing activities were carried out by the licensee.

2. Conclusion

Category 1.

3. Board Recommendation

None.

H. Engineering and Technical Support

1. Analysis

This area was not discussed as a separate category in previous assessments. During this assessment period the resident and specialist inspectors reviewed the plant modifications and design change process and assessed the quality of engineering support for plant operations, maintenance, QA and training.

Routine resident and specialist inspections, including an Appendix R Team inspection, an Equipment Qualification Team inspection, a pipe support review, and a D.C. distribution system inspection, formed the basis for this evaluation.

The corporate engineering organization has a nucleus of highly talented innovative and experienced engineering personnel who are capable of performing credible engineering tasks, when provided with sufficient time. High quality engineering was demonstrated by the modification of high pressure turbine exhaust moisture separator reheaters, feed pump recirculation system design report, containment purging system, feedwater flow measurement system, structural upgrade program and steam generator snubber replacement.

The licensee also established a detailed training program for engineers. This program includes training in the areas of plant systems, quality assurance and regulatory requirements. However, training in the Equipment Qualification area was poor.

Staffing shortages of the engineering organization have been previously identified. Corporate management acknowledged these shortages and increased the number of corporate engineering personnel over the past seven years. Management is aware that the corporate engineering staff still operates in a reactive mode due to engineering problems identified by the NRC. Relatively higher priorities are assigned to tasks requiring resolution to the NRC. When high priority tasks are undertaken, routine support to the plant suffers; as a result, a backlog of routine engineering work exists.

Towards the end of the assessment period, the licensee management recognized this lack of prompt support to Ginna Station on routine matters and instituted actions to plan and prioritize engineering tasks. Ginna Station Priority Engineering Work Request System and Milestone planning are examples of licensee's efforts to prioritize and track engineering tasks. The effectiveness of these systems has not be assessed.

Resolution of immediate concerns which require coordination between corporate engineering and the plant is usually good. However, the lack of priority and weak interface between the Corporate Engineer-

ing and site Operations Department has resulted in delays in resolving engineering issues. For example, the licensee and NRC identified discrepancies over the past four years prompted a major upgrade program of Piping and Instrumentation Drawings (P&IDs). However, the upgrade program has failed to effectively ensure that P&IDs reflect as-built conditions, are in agreement with controlled procedures and changes are adequately controlled.

The licensee's corporate engineering organization does not always adequately assess the safety significance of problems as evidenced by over 80 fuse anomalies presented to the Plant Operations Review Committee (PORC) without a safety evaluation determining their acceptability. Additionally, PORC did not perform an independent evaluation or follow the recommendation of corporate engineering to resolve the problems. The licensee's attention to this matter was aggressive only after the NRC identified the areas of concern.

The licensee's engineering organization did not allocate sufficient manpower resources to resolve DC power system problems in a timely fashion. The lack of technical depth led to the failure to recognize the potential significance of the fuse anomalies. The licensee's management subsequently decided to hire additional specialists to help resolve the existing electrical power system concerns.

The licensee initiated and completed modifications under their Seismic Upgrade program in response to the Inspection and Enforcement Bulletins (IEBs); however the licensee's management and technical staff did not follow-up or address several important IEB 79-02 requirements. For example, the plant was operational for seven years without the licensee performing the analysis and calculations to determine that anchor bolt factors of safety were in accordance with the IEB 79-02 requirements. Furthermore, there was no inspection of anchor bolting for reanalyzed supports that involved load change characteristics (compression to tension) as required by IEB 79-02. The licensee initiated actions to resolve these issues only after several NRC requests.

Management involvement and control of Equipment Qualification (EQ) activities was weak as evidenced by the poor EQ file status which included missing, incomplete and extraneous file data. Licensee management was not aggressively involved in implementing the EQ program as far as the qualification documentation is concerned. The personnel training was inadequate, the audit program was marginal, and the EQ modification documentation needed organization.

The plant's corporate and site management exhibited an aggressiveness to fire protection issues, with priority given to problems requiring hardware fixes. The licensee made several modifications to achieve compliance with the Appendix R, Section III.G separation requirements. However, work related to a EDG local control panel

ing and site Operations Department has resulted in delays in resolving engineering issues. For example, the licensee and NRC identified discrepancies over the past four years prompted a major upgrade program of Piping and Instrumentation Drawings (P&IDs). However, the upgrade program has failed to effectively ensure that P&IDs reflect as-built conditions, are in agreement with controlled procedures and changes are adequately controlled.

The licensee's corporate engineering organization does not always adequately assess the safety significance of problems as evidenced by over 80 fuse anomalies presented to the Plant Operations Review Committee (PORC) without a safety evaluation determining their acceptability. Additionally, PORC did not perform an independent evaluation or follow the recommendation of corporate engineering to resolve the problems. The licensee's attention to this matter was aggressive only after the NRC identified the areas of concern.

The licensee's engineering organization did not allocate sufficient manpower resources to resolve DC power system problems in a timely fashion. The lack of technical depth led to the failure to recognize the potential significance of the fuse anomalies. The licensee's management subsequently decided to hire additional specialists to help resolve the existing electrical power system concerns.

The licensee initiated and completed modifications under their Seismic Upgrade program in response to the Inspection and Enforcement Bulletins (IEBs); however the licensee's management and technical staff did not follow-up or address several important IEB 79-02 requirements. For example, the plant was operational for seven years without the licensee performing a complete analysis and calculations to determine that anchor bolt factors of safety were in accordance with the IEB 79-02 requirements. Portions of the Service Water System and the Standby Auxiliary Feedwater System were omitted from this analysis. Furthermore, there was no inspection of anchor bolting for reanalyzed supports that involved load change characteristics (compression to tension) as required by IEB 79-02. The licensee initiated actions to resolve these issues only after a written NRC request.

Management involvement and control of Equipment Qualification (EQ) activities was weak as evidenced by the poor EQ file status which included missing, incomplete and extraneous file data. Licensee management was not aggressively involved in implementing the EQ program as far as the qualification documentation is concerned. The audit program was marginal, and the EQ modification documentation needed organization.

The plant's corporate and site management exhibited an aggressiveness to fire protection issues, with priority given to problems requiring hardware fixes. The licensee made several modifications to achieve compliance with the Appendix R, Section III.G separation requirements. However, work related to a EDG local control panel

circuit modification was not begun until the day before the commitment date because of delays in Engineering Specifications. When the modification was made, the station batteries were inadvertently cross tied. This oversight in initial engineering planning was later corrected.

In summary, the licensee's engineering and technical support activities are effective in resolving items that require immediate attention. The engineering staff operates constantly in a reactive mode with routine and long term projects being suspended while attending urgent issues. However, prioritization and milestone planning have only recently been initiated to prevent the reactive mode of resolving NRC issues and the current engineering backlog. Weak interface between corporate engineering and plant operations appears to add to delays in addressing and resolving problems. The lack of technical depth in the corporate engineering organization has led to the failure to recognize the potential significance of issues or the failure to followup on NRC requirements and initiatives. Corporate level efforts to assure adequate support of routine engineering projects is weak.

2. Conclusion

Category 2.

3. Board Recommendation

Licensee: Reexamine the technical depth of the engineering staff and ensure resources are available to enhance plant performance by the conduct of proactive initiatives.

Deleted 9/30

circuit modification was not begun until the day before the commitment date because of delays in Engineering Specifications. When the modification was made, the station batteries were inadvertently cross tied. This oversight in initial engineering planning was later corrected prior to turnover for use.

In summary, the licensee's engineering and technical support activities are effective in resolving items that require immediate attention. The engineering staff operates constantly in a reactive mode with routine and long term projects being suspended while attending urgent issues. However, prioritization and milestone planning have only recently been initiated to prevent the reactive mode of resolving NRC issues and the current engineering backlog. Weak interface between corporate engineering and plant operations appears to add to delays in addressing and resolving problems. The lack of technical depth in the corporate engineering organization has led to the failure to recognize the potential significance of issues or the failure to followup on NRC requirements and initiatives. Corporate level efforts to assure adequate support of routine engineering projects is weak.

2. Conclusion

Category 2.

3. Board Recommendation

Licensee: Reexamine the technical depth of the engineering staff and ensure resources are available to enhance plant performance by the conduct of proactive initiatives.

I. Training and Qualification Effectiveness

1. Analysis

Training and Qualification Effectiveness, while being considered a separate functional area, continues to be an evaluation criterion for each functional area. Since the various aspects of training and qualification programs have been considered and discussed in other functional areas, this discussion is a synopsis of the assessments related to training in those areas.

This functional area was evaluated for the first time as a separate category in the previous period and was rated Category 2. Strengths included a strong commitment to licensed operator training as evidenced by the use of a site specific simulator and an engineering degree program for licensed operators. The major weakness identified was the less structured and informal training for non-licensed personnel.

This assessment also includes two reviews of the licensed operator requalification program, the examination of five Senior Reactor Operator (SRO) candidates and six Reactor Operator (RO) candidates.

Management involvement and control in assuring that the quality of training is continually improving is evident. However, the QA audits of personnel training and qualification were compliance rather than performance based. During this assessment period INPO accreditation was received for Non-Licensed Operators, Reactor Operators, and Senior Reactor Operators. Self evaluation reports have been submitted to INPO for the remaining training areas. Craft personnel actively participated in the development of the INPO accreditation training programs.

Requalification training conducted on the simulator was observed to provide meaningful training to the operators. Further, the requalification training program was considered to be improving due to the use of the plant reference simulator and the implementation of a training program based on learning objectives developed from a job task analysis.

During the second requalification review the written questions for the examination were reviewed and substitution of facility questions with NRC questions was performed. The licensee's implementation of the requalification program was adequate. However, concern was expressed over the security for facility prepared annual requalification examinations since a large percentage of questions used came from previously administered examinations.

A total of 5 RO and 6 SRO written, simulator and oral examinations were administered. Overall results were good with only one failure. One generic weakness noted from the oral examinations was that all candidates were deficient in knowledge of fuel handling operations, procedures and casualties.

One reactor trip was caused by an inexperienced reactor operator improperly manipulating control board switches. The operator had been given minimum control board experience after receiving his license due to seniority reasons. Additionally, the operator had minimal simulator time as he was licensed before the plant specific simulator was made operational. The retraining of the operator was appropriate.

Most training programs continue to be effective however; a few instances were noted where training or qualification was inadequate. The radiation protection training program continues to make a positive contribution to the radiation protection program. The completely new and comprehensive procedures, in lieu of revisions, addressing Nondestructive Examination (NDE) personnel qualification has improved a good ISI program. The licensee's performance in the full participation exercise indicates that their emergency preparedness training program has been effective. The security force training and requalification program is well developed and effectively administered as evident by the excellent job knowledge demonstrated by members of the security force. Personnel training was inadequate however, in the equipment qualification area (see Engineering and Technical Support).

Nine of thirteen reportable events were attributable to personnel errors. Our review of these events indicates predominately a lack of attention to detail in performing a task or following a procedure rather than inadequate training in the task or procedure. Several personnel errors did indicate that specific personnel required some additional training or qualification. Most notable was the operator error which resulted in a reactor trip and the maintenance review of a work request by a non-licensed individual. No programmatic training deficiencies were identified.

In summary, corporate and site management involvement in and commitment to training is evident in both the continued support of licensed operator training and an increased support of non-licensed operator and staff training. Programs such as INPO accreditation, degrees for operators and auxiliary operator, and training for QC inspectors continue to be supported by management. While deficiencies were noted in the qualification or training of personnel in several functional areas, the overall training effectiveness has continued to improve.

2. Conclusion

Category 1.

3. Board Recommendation

None.

J. Assurance of Quality

1. Analysis

Assurance of Quality continues to be an evaluation criterion for each functional area. The various aspects of programs to assure quality have been considered and discussed as an integral part of each functional area. Consequently, this section is a synopsis of the assessments relating to the quality of work conducted in all areas. This section provides a brief outline of past NRC concerns in this area and licensee actions to resolve these concerns. Additionally, the effectiveness of working staff, first line supervisors, management, QA/QC and the independent review organizations (PORC and NSARB) in assuring quality is assessed.

This functional area was evaluated for the first time as a separate category in the previous SALP period and was rated Category 2. Recommendations to the licensee were to accelerate implementation of measures to enhance quality, and develop feedback and monitoring mechanisms to assure working level understanding of Quality Assurance (QA) and Quality Control (QC) requirements and overview so that QA and QC can be effectively used as a management tool in assuring safe operation of the plant.

A major strength continues to be the well experienced, knowledgeable and dedicated working level staff. As stated in the other areas such as Operations, Maintenance, Radiological Controls, Engineering and Security, the facility is operated in a competent manner. The first line supervisors are also technically competent, well experienced and assure that work is conducted in a safe manner. The Maintenance, Security, and Materials Engineering managers have conducted critical self assessments of their programs and set goals for future improvements and have been successful in obtaining resources and support from upper management. However, few other middle level managers have been aggressive in obtaining additional resources or management support for their areas. The other departments have strong supervisory level staffs that compensate for the middle managers inability to obtain resources. Upper level management has supported quality in most areas; however, quality assurance and quality control continue to be underutilized as management tools to improve quality. Management responsiveness to problems below the NRC violation and licensee corrective action request level required prompting in most cases, as no formal tracking system has been established.

Working level initiatives such as auxiliary operator training for QC inspectors, assigning auxiliary operators to the Results and Test department , and utilizing craft personnel in the development of INPO accreditation have increased the awareness of quality in those

areas. However, most other programs, intended to increase quality awareness, are still aimed at the various management and supervisory level personnel.

The licensee's management has established a "back-to-basics" program (given to middle and lower level management to stress the reasons and rationale behind implementing a quality program in accordance with 10 CFR 50, Appendix B), an escalation process for corrective action requests and nonconformance reports (including monthly status reports of findings to the station superintendent), and a QA/QC task force (a subcommittee of the NSARB, consisting of upper level management) to review findings and initiate programs to promote quality. The effectiveness of these efforts was not evident.

Various meetings, boards, and committees are used by the licensee to identify and assess concerns and provide independent quality reviews of assessments. The daily morning priority action required (MOPAR) meetings, comprised primarily of PORC members, continue to address and resolve plant operating concerns in a timely manner. The PORC interdisciplinary review continues to be an effective management tool used by the Superintendent of Ginna Production to assist in overseeing plant activities. In a few instances, PORC safety reviews were found to be inadequate or not performed. NSARB meetings attended were well-structured and thorough in their review of licensee activities.

At times, the QA organization is ineffective in identifying problems. In one case, commercial grade purchases were being upgraded by plant QC personnel using a Nonconformance Report (NCR) dispositioned as use-as-is without evaluating the items for their suitability in safety-related applications. Additionally, the lack of aggressive, proactive, performance based QA audits was identified in the Plant Operations, Training and Qualification Effectiveness and Security and Safeguards sections of this report.

Last assessment period a new station Nuclear Assurance Manager (responsible for QC) was selected who reports to the corporate level Superintendent of Nuclear Production instead of the site Superintendent of Operations. Informal communication of QC findings to management has been evident by management's failure to take corrective action on long-standing issues such as the Auxiliary Building subbasement flooding potential and P&ID errors. Both items were identified to management several times by QC inspectors.

As mentioned in the Plant Operations and Radiological Controls sections, the quality of housekeeping is erratic, especially in the Auxiliary and Intermediate Buildings. Management involvement and oversight of an effective housekeeping program was not apparent during this assessment period. This continues to be a problem which was identified in the previous SALP period.

Plant and corporate management are kept informed of major problems or concerns through the licensee's corrective action system. However, a tracking system for other concerns such as QC findings and NRC unresolved items does not exist. The lack of a comprehensive effective tracking system for identified concerns has resulted in many items remaining unresolved for extensive periods of time. The licensee's protracted approach to corrective actions to address identified concerns indicates that corporate and site management is not aggressively involved in resolving regulatory and technical issues in a timely manner.

Corporate and site anagement support for assurance of quality is evident. However, involvement and oversight of programs that affect quality such as housekeeping, engineering support and resolution of NRC concerns appears to be inadequate. While programs to improve worker awareness of quality have been initiated and included lower level managers, workers in all areas are not involved in the programs. Corporate and site management has not been effective in utilizing QA and QC as a management tool as evidenced by failure to correct identified problems.

2. Conclusion

Category 2.

3. Board Recommendation

Licensee:

-- Assess the plant operations and corporate engineering interface and make the necessary changes to ensure timely resolution of those matters requiring engineering support.

-- Improve the use of QA and QC as a management tool and broaden the scope of the formal identification, tracking, and resolution of quality concerns and problems.

V. SUPPORTING DATA AND SUMMARIES

A. Investigation and Allegation Review

During this assessment period one allegation was received and acted on. No substantial concerns resulted from follow-up of the allegation and it was subsequently closed.

B. Escalated Enforcement Actions

None.

C. Management Conferences

Date	Subject
October 7, 1986	SALP (1/1/85-5/31/86)
November 19, 1987	Licensee Engineering and Technical Services

D. Licensing Amendments

Amendment #	Title	Date
15	Reactor Vessel Pressure - Temperature Limits Reactor Vessel Surveillance Capsule at SFPY	6/12/86
16	Management Reorganization	8/8/86
17	Clarify the Surveillance Requirements for an Outside Fire Hydrant	8/18/86
18	Deletion of Operability Requirement for Smoke Detection Instrumentation for a Fire Detection Zone that is Being Removed Due to Plant Modification	8/18/86
19	Delete the Requirement From the T.S. for Operation of the Aux. Bldg. Ventilation and Charcoal Filter absorber System	9/18/86
20	Clarifies Record Retention for Q.A. Activities	10/22/86
21	Alters the T.S. Requirements Dealing with the Membership and Quorum Requirement from the Nuclear Safety Audit & Review Board	11/28/87

Amendment #	Title	Date
22	Revises Requirements of the T.S. Dealing with Control Rod Indications Resulting from the Replacement of the Analog Rod Position Indication (ARPI) System with a W Microprocessor Rod Position Indicator (MRPI) System	2/10/87
23	Revise T.S. Related to Corporation Organization	7/10/87
24	Define the Term Operability in T.S.	10/27/87

TABLE 1

LISTING OF LERs BY FUNCTIONAL AREA

AREA	CAUSE CODES A	B	C	D	E	X	TOTAL
OPERATIONS	4						4
RADCON/CHEMISTRY	2						2
MAINTENANCE	1				1		2
SURVEILLANCE	1				1		2
EMERGENCY PREP.							
SEC/SAFEGUARDS							
TRAINING							
LICENSING							
ASSURANCE OF QUALITY							
ENGINEERING SUPPORT	1	1	_	_	1		3
TOTALS:	9	1			3		13

CAUSE CODES:

A - PERSONNEL ERROR
B - DESIGN, MANUFACTURING, CONSTRUCTION OR INSTALLATION ERROR
C - EXTERNAL CAUSE
D - DEFECTIVE PROCEDURES
E - COMPONENT FAILURE
X - OTHER

LICENSING EVENT REPORTS REVIEWED

Report Numbers 86-004 thru 86-011 and 87-001 thru 87-005.

TABLE 2

INSPECTION HOUR SUMMARY

AREA	HOURS	% OF TIME
OPERATIONS	1284	30.8
RADCON	430	10.3
MAINTENANCE	268	6.4
SURVEILLANCE	374	9.0
EMERGENCY PREP.	271	6.5
SEC/SAFEGUARDS	163	3.9
TRAINING	80	1.9
LICENSING	N/A	N/A
ASSURANCE OF QUALITY	708	17.0
ENGINEERING SUPPORT	590	14.2
TOTALS:	4168	100.0

TABLE 3

ENFORCEMENT SUMMARY

AREA	SEVERITY LEVEL 1	2	3	4	5	DEV	TOTAL
OPERATIONS				1			1
RADCON				2			2
MAINTENANCE				1			1
SURVEILLANCE				2			2
EMERGENCY PREP.							
SEC/SAFEGUARDS				1			1
TRAINING							
LICENSING							
ASSURANCE OF QUALITY				7			7
ENGINEERING SUPPORT				4		2	6
TOTALS:	—	—	—	18	—	2	20

Table 3

INSPECTION REPORT/DATE	REQUIREMENT	VIOL. LEVEL	FUNCTIONAL AREA	VIOLATION
244/86-15 8/11-15/86	10 CFR 20.311(b)	4	RADIOLOGICAL CONTROLS	FAILURE TO IDENTIFY IRON-55 ON SHIPPING PAPERS.
244/86-20 11/4-6/86	10 CFR 70.51 (c)	4	SEC/ SAFEGUARDS	FAILURE TO ESTABLISH WRITTEN MAT. CONTROL & ACCT'G PROCEDURES FOR ALL SNM BEARING FISSION DETECTORS, AND CONDUCT PHYSICAL INVENTORY EVERY MONTH.
244/87-03 2/9-13/87	10 CFR 50.49 (k)	4	ENGINEERING	LEAKAGE CURRENT NOT CONSIDERED IN PERFORMANCE REQUIREMENTS OF COLEMAN CABLE.
244/87-03 2/9-13/87	10 CFR 50.49 (k)	4	ENGINEERING	SIMILARITY NOT ESTABLISHED BETWEEN TEST PENETRATION AND INSTALLED UNITS.
244/87-04 2/8-3/14/87	10 CFR 50.59	4	ENGINEERING	FAILURE TO PERFORM A 10 CFR 50.59 REVIEW OF LEAD SHIELDING.
244/87-04 2/8-3/14/87	TECH. SPEC. 4.1.4	4	SURVEILLANCE	FAILURE TO PERFORM MONTHLY SURVEILLANCE ON R-18 FROM 1976 TO 1987 AND FAILURE TO MAINTAIN PT-17.2 SOURCE CHECK OF R-18.
244/87-08 3/15-4/18/87	TECH SPEC: 3.14.3.1	4	OPERATIONS	INOPERABLE FIRE SYSTEM FOR ONE HOUR AND TWENTY MINUTES.
244/87-09 4/19-5/30/87	TECH SPEC. 6.8.1	4	ASSURANCE OF QUALITY	FAILURE TO FOLLOW PROCEDURES PER T.S. 6.8.1 ON TEMPORARY MODS.
244/87-10 4/13-16/87	TECH SPEC. 6.8.1	4	ASSURANCE OF QUALITY	FAILURE TO PERFORM REQUIRED TWO YEAR REVIEWS OF ADMIN PROCEDURES AND FCRS NOT COMPLETED IN ACCORDANCE WITH QE316.
244/87-10 4/13-16/87	10 CFR 50 B.XIII	4	ASSURANCE OF QUALITY	O RINGS NOT INCLUDED IN THE SHELF-LIFE PROGRAM.
244/87-10 4/13-16/87	10 CFR 50 B.VIII	4	ASSURANCE OF QUALITY	USE OF COMMERCIAL GRADE ITEMS WITHOUT APPROPRIATE ENGINEERING EVALUATIONS.
244/87-10 4/13-16/87	10 CFR 50 B.III	4	ASSURANCE OF QUALITY	FAILURE TO PROTECT STAINLESS PIPE FROM DETRIMENTAL CONTAMINATION.
244/87-11 5/5-8/87	IE BULLETIN 79-02	D	ENGINEERING	PIPE SUPPORT ANCHOR BOLT FACTOR OF SAFETY FOR INTERIM OPERATION WAS NOT KNOWN.

Table 3

INSPECTION REPORT/DATE	REQUIREMENT	VIOL. LEVEL	FUNCTIONAL AREA	VIOLATION
244/87-11 5/5-8/87	IE BULLETIN 79-02	D	ENGINEERING	PIPE SUPPORTS ANCHOR BOLTS WERE NOT INSPECTED FOR SUPPORT LOAD CHANGES FROM COMPRESSION TO TENSION.
244/87-16 5/31-7/4/87	TECH SPEC. 6.8.1	4	ENGINEERING	INACCURATE CONTROL DRAWING 33013-756, "TSC-VITAL BATTERY INTERTIE" - T.S. 6.8.1 FAILURE TO FOLLOW PROCEDURES.
244/87-18 7/5-8/22/87	TECH SPEC. 6.8.1	4	MAINTENANCE	FAILURE TO CONTROL MAINTENANCE ACTIVITIES OF SAFETY-RELATED EQUIPMENT AND FAILURE TO PERFORM POST-MAINTENANCE TESTING TS 6.8.1.
244/87-19 7/27-31/87	TECH SPEC. 6.8.1	4	RADIOLOGICAL CONTROLS	FAILURE TO HAVE ADEQUATE PROCEDURE FOR CONTAINMENT AREA HI RAD MONITORS.
244/87-23 9/28-10/2/87	10 CFR 50, B, XVI	4	ASSURANCE OF QUALITY	FAILURE TO PROMPTLY CORRECT CONDITIONS ADVERSE TO QUALITY-MULTIPLE DC FUSE ANOMALIES.
244/87-25 10/4-11/30/87	TECH. SPEC. 6.8.1	4	SURVEILLANCE	FAILURE TO FOLLOW PROCEDURE A-1402, CONTROL OF SAFETY INJECTION PUMPS RECIRC LINE BLOCKING DEVICES.
244/87-27 10/26-30/87	10 CFR 50, B, XVI	4	ASSURANCE OF QUALITY	FAILURE TO TAKE CORRECTIVE ACTIONS TO PRECLUDE REPETITIVE NONCONFORMANCES-DRAWING CONTROL.

TABLE 4

INSPECTION REPORT ACTIVITIES

REPORT/DATES	INSPECTOR	HOURS	AREAS INSPECTED
86-10 7/14-18/86	SPECIALIST	78	ROUTINE, UNANNOUNCED INCLUDING: ORGANIZATION AND MGT. CONTROLS, TRAINING & QUALIFICATION OF PERSONNEL AND CONTROL OF RADIOACTIVE MATERIALS.
86-11 6/1-7/31/86	RESIDENT	297	ROUTINE, INCLUDING: LICENSED OPERATOR REQUALIFICATION PROGRAM, ON-SITE REVIEW COMMITTEE, QA AND INSERVICE TESTING, SAFETY INJECT. CONT. VALVE.
86-12 8/26-29/86	SPECIALIST	64	ROUTINE INCLUDING: SHIFT STAFFING, AUGMENTATION, TRAINING, PUBLIC INFORMATION PROG., LICENSEE AUDITS AND ADMINISTRATION OF E/P PROGRAM.
86-13 9/9-11/86	SPECIALIST	66	ROUTINE INCLUDING: OBSERVATION OF LICENSEE'S ANNUAL EMERGENCY EXERCISE PERFORMED ON SEPTEMBER 10, 1986.
86-14 8/1-31/86	RESIDENT	92	ROUTINE INCLUDING: IE INFORMATION NOTICE FOLLOW-UP AND MANAGEMENT MEETING.
86-15 8/11-15/86	SPECIALIST	28	ROUTINE, UNANNOUNCED INCLUDING: PURPOSE, MANAGEMENT CONTROLS, TRAINING, PROCEDURES, SHIPMENTS OF RADIOACTIVE MATERIAL, QC & PACKAGE.
86-16 9/1-10/4/86	RESIDENT	240	ROUTINE, INCLUDING: LICENSEE EVENT REPORTS AND OFF-SITE REVIEW COMMITTEE MEETING.
86-17 10/20-24/86	SPECIALIST	189	SPECIAL, INCLUDING: LICENSEE'S EFFORTS TO COMPLY WITH REQUIREMENTS OF 10 CFR 50, APPENDIX R, SECT. III.G, J & O.
86-18 10/5-11/8/86	RESIDENT	195	ROUTINE INCLUDING: ON-SITE REVIEW COMMITTEE MEETING.
86-19 11/4-6/86	SPECIALIST	27	ROUTINE, INCLUDING: MEASUREMENT CONTROL AND ANALYTICAL PROCEDURE EVALUATIONS.
86-20 11/4-6/86	SPECIALIST	57	ROUTINE, UNANNOUNCED INCLUDING: ORGANIZATION AND OPERATION, SHIPPING & RECEIVING, STORAGE AND INTERNAL CONTROL, INVENTORY, RECORDS & REPORTS.

Table 4

REPORT/DATES	INSPECTOR	HOURS	AREAS INSPECTED
86-21 11/9/86-1/3/87	RESIDENT	178	ROUTINE, INCLUDING: LICENSEE EVENT REPORTS AND ON-SITE REVIEW COMMITTEE MEETING.
86-22 12/15-19/86	SPECIALIST	35	ROUTINE, INCLUDING LICENSEE'S RESPONSE TO PREVIOUS INSPECTION FINDINGS AND EFFECTIVENESS OF LICENSEE'S CORRECTIVE ACTION PROGRAM.
87-01 1/5-9/87	SPECIALIST	41	ROUTINE, UNANNOUNCED INSPECTION OF RADIATION PROTECTION PROGRAM INCLUDING EXTERNAL, INTERNAL EXP. CONT., RAD. MATERIAL CONTAMINATION, ALARA
87-02 1/4-2/7/87	RESIDENT	140	ROUTINE, INCLUDING BACKSHIFT, TEMPORARY INSTRUCT. RI-86-03, RI-87-02, LER 86-11, FAILURE OF SOURCE CHECK R-18.
87-03 2/9-13/87	SPECIALIST	201	SPECIAL, ANNOUNCED INCLUDING: LICENSEE'S PROGRAM ESTABLISHING & MAINTAINING QUALIFICATION OF ELECTRICAL EQUIP. WITHIN SCOPE OF 10CFR50.49
87-04 2/8-3/14/87	RESIDENT	181	ROUTINE, INCLUDING REQUAL. EXAM., TI 2500/16, MAIN CONTROL BOARDS MODS, R-18 VIOLATION AND 50.59 VIOLATION.
87-05 2/24-27/87	SPECIALIST	80	ROUTINE, UNANNOUNCED INCLUDING: PREVIOUS IDENTIFIED ITEMS, ORGANIZATION MGT. CONT.
87-06 2/24-27/87	SPECIALIST	46	ROUTINE, UNANNOUNCED INCLUDING: STEAM GEN. EXAMINATIONS AND MAINTENANCE, ISI AND LICENSEE ACTIONS ON PREVIOUS INSPECTION FINDINGS.
87-07 4/21-25/87	SPECIALIST	34	ROUTINE, UNANNOUNCED INCLUDING: SECURITY PROGRAM, TESTING, MAINTENANCE, LIGHTING, DETECTION AIDS AND ALARM STATIONS.
87-08 3/15-4/18/87	RESIDENT	134	ROUTINE, INCLUDING: LICENSEE ACTION ON PREVIOUS FINDINGS, PLANT OPERATIONS, OPERATIONAL SAFETY, AND LICENSEE EVENT REPORTS.
87-09 4/19-5/30/87	RESIDENT	126	ROUTINE, INCLUDING: LICENSEE ACTION ON PREVIOUS FINDINGS, REVIEW OF PLANT OPERATIONS, OPERATIONAL SAFETY, SURVEILLANCE TESTING & MAIN.
87-10 4/13-16/87	SPECIALIST	108	ROUTINE, UNANNOUNCED INCLUDING: DESIGN CHANGE AND MODIFICATION CONTROL, PROCUREMENT, MATERIAL MANAGEMENT, AND QA/QC.

Table 4

REPORT/DATES	INSPECTOR	HOURS	AREAS INSPECTED
87-11 5/5-8/87	SPECIALIST	115	SPECIAL ANNOUNCED INCLUDING: RESPONSE TO IE BULLETINS 79-02 AND 79-14 AND REVIEW OF DESIGN ANALYSIS AND WORK PERFORMED IN MODIFICATIONS.
87-12 4/27-30/87	SPECIALIST	29	ROUTINE, ANNOUNCED INCLUDING: CHANGES TO EP PROGRAM, EMERGENCY DETECTION AND CLASSIFICATION, SECURITY/OPS INTERFACE DURING EMERGENCIES.
87-13 7/6-10/87	SPECIALIST	77	ROUTINE, ANNOUNCED INCLUDING: NON-LICENSED TRAINING AND OPEN ITEMS.
87-14 5/22-18/87	SPECIALIST	36	ROUTINE, UNANNOUNCED INCLUDING: RADIOACTIVE EFFLUENT RELEASE RECORDS, CONTROL INSTRUMENTATION, CONTROL PROCEDURES & DOSE CALCULATIONS.
87-15 6/1-5/87	SPECIALIST	36	ROUTINE, UNANNOUNCED INCLUDING: SURVEILLANCE AND TESTING PROG., MAINTENANCE PROGRAM, & OFF-SITE POWER SOURCE TRANSFORMER PREVENTIVE MAIN.
87-16 5/31-7/4/87	RESIDENT	131	ROUTINE, INCLUDING: LICENSEE EVENT REPORTS.
87-17 7/13-17/87	SPECIALIST	77	ROUTINE, UNANNOUNCED INCLUDING: RADIOCHEMICAL MEASUREMENTS PROGRAM, BIOASSAY WHOLE BODY COUNTING AND RADIOACTIVE WASTE PROCESSING.
87-18 7/5-8/22/87	RESIDENT	175	ROUTINE INCLUDING: FOLLOW-UP ON INSPECTION REPORT 87-08.
87-19 7/27-31/87	SPECIALIST	68	ROUTINE UNANNOUNCED INCLUDING: AUDITS, EXTERNAL AND INTERNAL EXPOSURE CONTROL, CONTROL OF RADIOACTIVE MATERIAL AND CONTAMINATION.
87-20 8/23-10/3/87	RESIDENT	209	ROUTINE INCLUDING: BACKSHIFT AND WEEKEND INSPECTION.
87-21 8/31-9/4/87	SPECIALIST	42	ROUTINE UNANNOUNCED INCLUDING: FOLLOW-UP OF GL 83-28 ITEM 4.1(VENDOR RECOMMENDED MOD. TO REACTOR TRIP BREAKERS) AND QA/QC INTERFACES.
87-22 10/5-11/23/87	SPECIALIST	NA	OPERATOR EXAMINATION REPORT.
87-23 9/28-10/2/87	SPECIALIST	36	ANNOUNCED INCLUDING: REVIEW OF DC DISTRIBUTION SYSTEM AND DC FUSE ANOMALIES.

Table 4

REPORT/DATES	INSPECTOR	HOURS	AREAS INSPECTED
87-24 10/26-29/87	SPECIALIST	112	ROUTINE ANNOUNCED INCLUDING: OBSERVATION OF THE LICENSEE'S ANNUAL EMERGENCY EXERCISE.
87-25 10/4-11/30/87	RESIDENT	210	ROUTINE INCLUDING: OPERATIONAL SAFETY VERIFICATION, SURVEILLANCE TESTING AND PLANT MAINTENANCE.
87-26 10/7-16/87	RESIDENT	45	ANNOUNCED QA PROGRAM ANNUAL REVIEW INCLUDING: RECORDS PROGRAM, DOCUMENT CONTROL, ON-SITE REVIEW COMMITTEE AND PERSONNEL CHANGES.
87-27 10/26-30/87	SPECIALIST	67	ROUTINE UNANNOUNCED INCLUDING: LICENSEE'S ACTIONS ON PREVIOUS CONCERNS AND THE DRAWING CONTROL PROGRAM.
87-28 11/16-20/87	SPECIALIST	66	ROUTINE UNANNOUNCED INCLUDING: SECURITY PLAN, PROCEDURES, ORGANIZATION, RECORDS AND REPORTS, PROTECTED AND VITAL AREAS AND TRAINING.

TABLE 5

LER SYNOPSIS

LER NUMBER	EVENT DATE	CAUSE CODE	DESCRIPTION
86-004	07/29/86	B	MANUAL REACTOR TRIP DUE TO LARGE LEAK IN TURBINE BUILDING.
86-005	07/30/86	E	AUTOMATIC REACTOR TRIP DUE TO INTERMEDIATE RANGE REACTOR TRIP AT 25%.
86-006	08/16/86	A	INOPERABLE BORIC ACID TRANSFER PUMP DUE TO VALVE MISALIGNMENT.
86-007	09/22/86	A	FIRE DETECTION SURVEILLANCE INTERVAL EXCEEDED DUE TO SCHEDULING ERROR.
86-008	10/23/86	A	AUTO. REACTOR TRIP FROM PRESSURIZER HIGH PRESSURE DUE TO TURBINE LOAD RUNBACK CAUSED BY VOLTAGE TRANSIENT ON INSTRUMENT POWER SUPPLY.
86-009	10/26/86	A	TECH. SPEC. VIOLATION DUE TO FOUR "D" BANK INOPERABLE CONTROL ROD POSITION INDICATIONS UNNOTICED FOR 16 HOURS.
86-010	11/08/86	A	TECH. SPEC. VIOLATION DUE TO NOT SAMPLING ACTIVE GAS DECAY TANKS OXYGEN CONTENT WITHIN 4 HOURS AFTER WASTE GAS OXYGEN MONITOR INOPERABLE.
86-011	11/28/86	A	INADVERTENT MSIV CLOSURE (FROM PERSONNEL ERROR) WHILE DEPRESSURIZING CONTAINMENT CAUSES AUTO. REACTOR TRIP FROM PRESS. HIGH PRESSURE.
87-001	02/20/87	E	POTENTIAL LOSS OF RHR CAPABILITY DUE TO LOSS OF NORMAL FUEL OIL MAKEUP CAPABILITY TO THE EDGS WHILE OFF-SITE POWER SECURED FOR MAINTENANCE.
87-002	03/03/87	A	REACTOR COOLANT SYSTEM OXYGEN CONCENTRATION EXCEEDS TECH. SPEC. LIMITS DUE TO PERSONNEL ERROR AND PROCEDURAL INADEQUACY.
87-003	03/16/87	A	INOPERABLE FIRE SYSTEM DETECTION ALARMS AND AUTO. SUPPRESSION, DUE TO PERSONNEL ERROR, DURING SYSTEM DISCONNECT PERFORMANCE.

Table 5

LER NUMBER	EVENT DATE	CAUSE CODE	DESCRIPTION
87-004	04/24/87	A	INADVERTENT CONTAINMENT ISOLATION DUE TO PERSONNEL ERROR DURING ELECTRICAL WIRE CHECKOUT OF SAFETY INJECTION RELAY CABINET.
87-005	05/14/87	E	INADVERTENT CONTAINMENT VENTILATION ISOLATION DURING MONTHLY PERIODIC TEST OF CONTAINMENT PARTICULATE RADIATION MONITOR.

ENCLOSURE 3

SALP MANAGEMENT MEETING ATTENDEES

Rochester Gas and Electric Corporation

K. Amish, Vice Chairman
C. Anderson, Manager, Quality Assurance
J. Bodine, Nuclear Assurance Manager
R. Kober, Senior Vice President, Production and Engineering
R. Mecredy, Director, Engineering Services
T. Meyer, Superintendent, Ginna Support Services
H. Saddock, President
R. Smith, Chief Engineer
B. Snow, Superintendent, Nuclear Production
S. Spector, Superintendent, Ginna Station
P. Wilkens, Manager, Nuclear Engineering

U.S. Nuclear Regulatory Commission

L. Bettenhausen, Chief, Projects Branch No. 1, Division of Reactor Projects (DRP)
C. Cowgill, Chief, Reactor Projects Section 1A, DRP
W. Kane, Director, DRP
C. Marschall, Senior Resident Inspector
N. Perry, Resident Inspector
C. Stahle, Project Manager, NRR
D. Wessman, Director, PD I-3, NRR