

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

SEPTEMBER 7, 1982

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## I. INTRODUCTION

### 1.1 Purpose and Overview

The Systematic Assessment of Licensee Performance (SALP) is an NRC staff effort to collect observations annually and evaluate licensee facilities to improve the NRC Regulatory Program and licensee performance.

The assessment period is July 1, 1981 through June 30, 1982. This assessment, however, includes NRC observations and licensee activities through July 1982.

The prior SALP period was July 1, 1980 - June 30, 1981.

Evaluation criteria used are discussed in Section III below.

### 1.2 SALP Attendees:

R. W. Starostecki, Director, Division of Project & Resident Programs (DPRP)  
T. T. Martin, Director, Division of Engineering & Technical Programs (DETP)  
G. H. Smith, Director, Emergency Preparedness & Operational Support (DEPOS)  
R. R. Keimig, Chief, Reactor Projects Branch No. 2, DPRP  
H. B. Kister, Chief, Reactor Projects Section 1C, DPRP  
J. E. Lyons, Licensing Project Manager, Operations Reactor Branch 5, NRR  
R. P. Zimmerman, NRC: RI Senior Resident Inspector, R. E. Ginna Nuclear Power Plant

### 1.3 Background

#### 1.3.1 Licensee Activities

The unit operated from the beginning of the assessment period to November 14 when a manual reactor trip was initiated immediately after an inadvertent fire suppression system actuation in several portions of the Turbine and Intermediate Buildings wetted several rod control cabinets and resulted in multiple dropped rod indications in the control room. The unit was returned to power operation on November 15 and remained at full power until a steam generator tube rupture occurred on January 25. The licensee decided to enter the annual refueling outage two months early while effecting steam generator repairs. Plant restart, with NRC concurrence took place on May 24 with full power operation maintained for the duration of the assessment period.

#### 1.3.2 Inspection Activities

One NRC resident inspector was assigned onsite for the entire appraisal period.

Total NRC Inspection Hours: 2471 (Resident and region based). Distribution of Inspection Manhours is shown on Table 3.

An emergency appraisal team inspection was conducted from November 2-13, 1981. An Emergency Plan exercise was observed on January 21, 1982.

A special NRC Task Force was assigned to review the circumstances surrounding the January 25, 1982, steam generator tube rupture event (NUREG 0909). The Task Force review included approximately 3000 man hours as noted at the bottom of Table 3.

R. E. Ginna SALP

Inspection activities are tabulated in Table 4. Violations are tabulated in Table 5.

R. E. Ginna SALP

II. SUMMARY OF RESULTS

R. E. GINNA NUCLEAR POWER PLANT

FUNCTIONAL AREAS

CATEGORY  
1

CATEGORY  
2

CATEGORY  
3

1. Plant Operations	X		
2. Radiological Controls			
o Radiation Protection			
o Radioactive Waste Management			
o Transportation		X	
o Effluent Control and Monitoring			
3. Maintenance	X		
4. Surveillance (Including Inservice and Preoperational Testing)		X	
5. Fire Protection and Housekeeping		X	
6. Emergency Preparedness	X		
7. Security & Safeguards	X		
8. Refueling/Outage Activities	X		
9. Licensing Activities	X		

### III. CRITERIA

The following performance aspects were reviewed in each area:

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

To provide a consistent evaluation, attributes relating each aspect to the characteristics of Category 1, 2, and 3 performance were applied as discussed in NRC Manual Chapter 0516, Part II and Table 1.

The SALP Board conclusions were categorized as follows:

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 such that a high level of performance with respect to operational safety is being achieved.

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

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



#### IV. PERFORMANCE ANALYSIS

##### 1. Plant Operations (35%)

Plant operations, including design changes and modifications; Operations Quality Control; and Plant Operation Review Committee (PORC) activities were under continuing review by the resident inspector. Licensee management continued to maintain a conservative attitude toward safe plant operations. This was especially evident throughout the decision making process during the steam generator tube rupture event on January 25, 1982; and during the troubleshooting of alarms on the steam generator loose parts monitor early in plant restart. PORC was actively involved in examining safety issues and remains a strong management tool.

Routine activities were performed by plant operators in an alert, professional manner. Emphasis was placed on carrying out plant evolutions safely while carefully monitoring important plant parameters. The onshift operating staff, both licensed and unlicensed, are well trained and function effectively as a unit. Operations Department management; however, appeared to lack aggressiveness in reviewing daily operating activities, tracking routine problems through solution, performing periodic plant tours, and attempting to improve noted weak areas. The stable complement of shift personnel, and good administrative and operating procedures helped to preclude programmatic weakness from developing. A recent personnel change in Operations Department supervision is expected to improve management involvement in the above areas.

Operator response to plant transients was swift and in accordance with approved procedures. Examples included: 1) the initiation of a manual reactor trip when inadvertent actuation of the fire suppression system resulted in multiple dropped control rod indication, and 2) quick performance of immediate actions following a steam generator tube rupture, identified and isolated the faulted steam generator with an estimated initial leak rate of approximately 750 g.p.m.. During the tube rupture event and ensuing radiological release, a Site Emergency was declared. Coordination of operational activities between the Control Room, Technical Support Center and Emergency Operations Facility were carried out in a well disciplined manner, in accordance with approved procedures. Subsequent actions and decisions with regard to mitigating the event exhibited conservatism, and were implemented with supervisory approval after giving appropriate consideration to alternatives.

Two Severity Level V and one Severity Level VI violation were identified: 1) Control Room Official Record did not maintain complete and accurate log entries, 2) a thirty day written report was not submitted documenting that a portion of the fire suppression/sprinkler system was inoperable for greater than 14 days, 3) Quality Control surveillance reports associated with the steam generator moisture separator carryover modifications were not properly completed, reviewed by supervision, or tracked.

Major systems modifications to the plant are performed under the Projects Section, which serves as an engineering link between the Corporate Office and the plant. Upon completion, of the modification and acceptable preoperation testing, the system is turned over to the plant. The transition from Projects to

the plant; however, needs more management attention to assure that plant personnel are properly trained, and operating procedures are completed and available for use at time of system turnover. For example, at the conclusion of the assessment period, acceptable operating procedures were still being written for the NUREG 0737 high range effluent monitors (Item II.F.1), which were placed in service prior to January 1, 1982. Personnel training also appeared hampered by difficulty in obtaining timely vendor information on system operation. Similar problems were noted with the most recently installed fire protection system and the undervoltage protection modification for the 480v vital buses.

With the addition of several technicians, the Quality Control (QC) Department has significantly increased the number of surveillance and inspection activities witnessed in the field. This has provided the licensee with a much improved internal review of plant activities. However, the above violation concerning surveillance reports, and a poorly maintained Material Accountability Log during the Spring, 1982 steam generator modifications, indicate that greater QC supervisory involvement is warranted.

Conclusion: Category 1

Board Recommendations: None



2. Radiological Controls (8%)

The licensee's radiological control programs functioned effectively through instituting necessary controls over radioactive materials and providing adequate worker protection and training. Although management involvement was evident, particularly with regard to the licensee's commitment to ALARA, minimal management attention was observed in assuring the development of plant procedures for operating the high range effluent monitors (NUREG 0737, Item 11.F.1). Further discussion is included in Functional Area 1. Staffing at both supervisory and non supervisory levels appears adequate. Daily health physics activities including scheduling and performance of various tasks appeared to be accomplished efficiently during both routine operation and outage situations. With few exceptions, plant procedures for control of health physics activities were well written and implemented. Periodic Reports required by Technical Specifications require greater attention and supervisory review to assure timely, accurate submittals. Region based inspectors conducted four routine and one special inspection of the licensee's radiological controls program. The resident inspector reviewed various ongoing activities involving the Health Physics Department throughout the assessment period.

Radiation Protection

Region based inspectors conducted two routine and one special inspection during the assessment period. The routine inspections included followup of the licensee's actions associated with IE Bulletin 80-10 and the Health Physics Appraisal. The radiation protection program was also observed by region based inspectors responding to the steam generator tube rupture event in January, 1982. The special inspection responded to an allegation concerning radiation worker training. Although the allegation was not substantiated, weaknesses were identified in the procedural and implementing controls for visitors entering radiological areas. Three Severity Level V violations were identified during the appraisal period: 1) several Special Work Permits did not accurately describe the work function, location, radiation or contamination levels, 2) survey instrument calibration frequency was not reduced when instrument history indicated the need, and 3) tritium concentration in the reactor coolant was determined on a monthly basis instead of weekly.

The licensee's extensive use of steam generator mock-ups provided considerable reduction in personnel exposure during repair efforts of the 'B' Steam Generator following the tube rupture event. The use of mock-ups aided the licensee's decision making process by allowing station personnel to determine the feasibility of various repair techniques prior to determining a course of action. Further, the mock-ups provided workers with the necessary familiarity and training prior to the actual performance of individual tasks.

Minor problems with radiological controls associated with radiation & contamination area posting, step off pad cleanliness and general housekeeping in controlled areas were the subject of a number of resident inspector post-tour discussions with health physics supervision. Although the above problems were not indicative of a significant deficiency, it is believed that

greater attention during tours by health physics technicians and duty engineers would identify and correct similar problems internally. Radiological housekeeping conditions immediately following the 1982 annual refueling outage were considered unacceptable and a Severity Level V violation was issued. Further discussion is included in Functional Area 5.

Weaknesses identified with the implementation of the extended Radiation Work Permit, and in several aspects of dosimetry control are currently under licensee review for improvement.

The licensee's action in response to items identified during the Health Physics Appraisal were acceptable, although several minor technical issues remain to be resolved. With regard to a problem discussed during the previous assessment period, a defined respiratory protection training program has been implemented for a large portion of the staff.

#### Radioactive Waste Management

Routine review of radioactive waste operations by the resident inspector identified no violations. The Upper Radwaste Storage Building has been completed and is in use to allow temporary storage of waste material awaiting shipment.

#### Transportation

One region based inspection and one State of Nevada inspection were conducted during the assessment period. A Severity Level III violation was identified for failure to effectively package radioactive materials for transport. A 55-gallon drum used as a shipping container was shipped to a burial site with a small hole punctured in the side. The hole was caused by a defective drum lifting device. The lifting device was replaced and procedures were revised requiring the Quality Control Department to inspect the drums before and after they have been placed on the shipping vehicle.

A defined training program on NRC and DOT transportation requirements has been implemented. The resident observed portions of loading activities associated with several shipments. In preparation for a dewatered resin shipment, licensee personnel discovered longitudinal cracks of varying degree in about fifty percent of the hold down bolts. This was identified through good cleaning and inspection practices in preparation for shipment.

### Effluent Control and Monitoring

One routine region based inspection of environmental monitoring was conducted. The resident inspector reviewed various activities associated with effluent control and monitoring. Additionally, the licensee's effluent monitoring program was observed by region based inspectors responding to the steam generator tube rupture event. Although no violations or potential programmatic problems were identified, the licensee initially had difficulty quantifying, with reasonable accuracy and timeliness, initial estimates of the offsite releases. An NRC Task Force estimated that during this incident, the licensee may have exceeded the Technical Specification release rate limit for release of gross activity (other than iodines and particulates) by 27% and exceeded the limit for iodines and particulates by a factor of 14. The maximum whole body dose (and organ dose) to individuals offsite from the release was estimated to be less than 5 mrem (NUREG 0909).

Conclusion: Category 2

Board Recommendations: None

(Refer to Supplement Page 10a)

#### Effluent Control and Monitoring

One routine region based inspection of environmental monitoring was conducted. The resident inspector reviewed various activities associated with effluent control and monitoring. Additionally, the licensee's effluent monitoring program was observed by region based inspectors responding to the steam generator tube rupture event. No violations or potential programmatic problems were identified.

Conclusion: Category 2

Board Recommendations: None

3. Maintenance (5%)

During the assessment period, the resident inspector reviewed maintenance activities during routine monthly inspections. No region based inspections were performed in this area. Maintenance activities received appropriate management attention, with work performed in a competent manner in accordance with plant procedures. Maintenance Work Orders and Trouble Cards were the predominant method for reporting maintenance related problems and initiating necessary repairs. The system functioned effectively, with good reporting practices and noteworthy responsiveness from the respective maintenance groups in expediting repair efforts. Supervisory and non supervisory levels were well staffed. Preventive maintenance remained a well organized and implemented program. Appropriate schedules and records of inspections and work performed were properly maintained. Tracking of Work Orders, Trouble Cards, preventive maintenance scheduling, equipment histories and inventory control were performed manually. The licensee intends on providing computer tracking capabilities within the next year.

One Severity Level V violation was identified for failure to submit a Licensee Event Report documenting that several hydraulic snubbers were determined to be inoperable during functional testing.

Pre-maintenance planning activities may need strengthening in that in two instances appropriate review of applicable vendor installation and maintenance instructions was not performed. This resulted in 1) the malfunctioning of a pressurizer relief valve during the steam generator tube rupture event due to the crimping of the instrument air exhaust tubing, which was cautioned against in the vendor instructions, and 2) excessive leakage past four containment vent valves due to improper adjustment of the resilient seats. Also shortcomings were recently identified in the material/component procurement and inventory program. In two separate instances, replacement parts were available for repair of equipment but were not identified by the procurement and inventory program. This resulted in the delay of necessary repairs.

Conclusion: Category 7

Board Recommendations: None



#### 4. Surveillance (8%)

The surveillance testing program was managed and implemented effectively. Surveillance, Inservice and Pre-operational testing were conducted largely by the Results and Test, Instrumentation and Control, and Projects sections. Pre-test discussions covering the scope of each surveillance test were routinely held between the surveillance group conducting the test and the control room operators. This provided for good communication, and was especially noteworthy between Results and Test and the control room operators. Surveillance procedures are generally well written with good clarity, detail and precautionary information. With the exception of the violation discussed below, procedural adherence has been good. Equipment malfunctions identified through testing were well documented on event reports and maintenance trouble cards ensuring supervisory personnel were made aware of potential problems quickly. Region-based specialist inspections were conducted of the containment tendon lift-off test and preparations for the Containment Integrated Leak Rate Test. The resident inspector reviewed various surveillance activities during routine inspections.

Two Severity Level V violations were identified: 1) during preoperational testing, failure to follow procedures for resetting Satellite Station 'A' associated with the fire protection system, resulted in an inadvertent actuation of the system and 2) a pyrometer maintained and used by the Results and Test group was not properly calibrated over its entire range of use by the Instrumentation and Control group due to an inadequate procedure and poor communication between the two groups. Calibration records were not available for a second temperature instrument maintained by Results and Test.

Surveillance scheduling by all departments was tracked manually. Shortly after the conclusion of the assessment period, two instances of missed surveillance testing occurred. In both cases, the required frequencies were exceeded due to inadequate supervisory attention to scheduling and performing recently added Technical Specification surveillance requirements.

With the exception of Results and Test, each section appeared well staffed. Staffing of the Results and Test group is not considered commensurate with section workload. Over the past two years Technical Specification surveillance requirements have increased significantly; however, no additional personnel with the exception of seasonal college co-op students have been added. Staffing problems were also evident by the large amount of overtime hours necessary for schedule completion during outages, and periodically, during routine power operation.

Conclusion: Category 2

Board Recommendations: None



5. Housekeeping & Fire Protection (3%) .

Housekeeping

Housekeeping conditions during routine operation were normally maintained at acceptable levels. Daily observations by plant personnel (e.g. auxiliary operators and technicians) and weekly tours by a duty engineer identified the majority of housekeeping concerns, although minor housekeeping problems were periodically identified during NRC tours and are discussed in Functional Area 2. Trouble cards were routinely submitted and corrective action promptly initiated.

During outage situations, licensee management involvement in Containment housekeeping was evident. Numerous tours were made, with stop-work orders issued as necessary until housekeeping conditions improved. However, poor housekeeping practices in the Auxiliary and Intermediate Buildings, during and after the recent annual shutdown, were noted and resulted in a Severity Level V violation. Similar problems with refueling and post-refueling housekeeping, excluding Containment, were discussed during the prior assessment period. Management attention toward housekeeping outside Containment appears to drop off significantly during a major outage, with only limited effort made to improve general plant cleanliness following plant restart.

Fire Protection

Management involvement in assigning priorities and control of activities was evident through the licensee's implementation of major fire protection modifications identified in the Fire Protection Safety Evaluation Report. Staffing levels were acceptable with two full time supervisory fire protection and safety coordinators. Implementation of the program, including component maintenance, fire brigade training and posting of necessary fire watches was well organized and implemented. One region based inspection of the fire protection/prevention program was conducted. The resident inspector reviewed various fire protection activities during routine inspections. No violations were identified.

Two significant events occurring in the fire protection area indicate the need for maintaining strong supervisory involvement. It was discovered that due to personnel error, a number of fire barrier penetrations had been dammed on both sides without filling the inner space with fire retardant foam. Secondly, following preventive maintenance on the Relay Room Halon System, the system was inadvertently left in a disabled condition. By coincidence, a fire watch was present in the relay room for the full period the Halon System was inoperable. Both events were identified by the licensee with corrective actions initiated promptly.

Conclusion: Category 2

Board Recommendations: None

6. Emergency Preparedness (32%)

An Emergency Preparedness Implementation Appraisal (EPIA) was conducted in November, 1981. Weaknesses identified during the EPIA requiring corrective action included the following: the Emergency Plan was not clearly defined down to the working level for all emergency functions as well as the minimum staffing requirements; lack of dedicated communications between the Technical Support Center (TSC), State and County agencies; lack of adequate monitoring equipment in the TSC; difficulty in performing containment air sampling and reassembly of site personnel. Additionally, implementing procedure weaknesses including inconsistencies, lack of necessary details, and isolated factually incorrect statements indicated that inadequate review was occurring. The licensee has been responsive to the above findings and acceptable resolutions were generally proposed and implemented.

A full scale exercise was observed on January 21, 1982. Evaluation showed that the licensee demonstrated the capability to implement their Emergency Preparedness Program in a manner to adequately protect the health and safety of the public. However, deficiencies were noted in training; equipment for emergency operations; procedures regarding communications, equipment and records; and coordination and direction of emergency response activities. The findings of FEMA-Region II concerning this exercise were that the objectives of the exercise were generally achieved by the State and local agency responses.

The licensee implemented its emergency preparedness response during the steam generator tube rupture event on January 25, 1982. A Site Emergency was declared by the licensee following the uncontrolled release of radioactive materials to the environment. Both station and corporate response to the event was well organized and effective, and resulted in mitigation and successful termination of the event with minimal offsite impact. Technical, administrative and media information was supplied quickly and accurately to outside organizations, including NRC, State and local authorities, and the media.

The installation of a public notification system was completed prior to the February 1, 1982 deadline. The licensee has continued to improve the performance of the warning system following results of periodic testing.

Conclusion: Category 1

Board Recommendations: Verify, through routine inspection, that the licensee's ability to measure and quantify onsite releases during accident conditions has been upgraded.

(Refer to Supplement Page 14a)

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Conclusion: Category 1

Board Recommendations: None

7. Security and Safeguards (3%)

The licensee maintains a contracted security guard force. Licensee management provided effective supervision, with qualified site and corporate personnel. Overall implementation of the security program was noteworthy. Relatively few problems occurred during routine security operations.

The resident inspector observed security activities on a routine basis. One region based inspection of the security program was also conducted. No violations or programmatic weaknesses were identified.

Compensatory measures taken in response to temporary loss or degradation of the intrusion detection system were in accordance with plant procedures. Security force response to intrusion alarms were observed to be carried out in a swift, disciplined manner. Security supervision coordinated effectively with local law enforcement agencies prior to and during several small public demonstrations near the site access road, to assure appropriate contingency measures were available. No problems were experienced.

Reliability of the security computer was good. Several outages of short duration occurred during software changes. Security personnel routinely submitted maintenance work orders and trouble cards when equipment problems were observed, and necessary repairs were promptly initiated.

The attrition rate of the security force for 1981 was 33%, with the extrapolated 1982 rate approximately 29%. This is considerably less than the 1979 and 1980 rates of 110% and 53%, respectively.

Conclusion: Category I

Board Recommendation: None



8. Refueling/Outage Activities (2%)

Outage activities received substantial management involvement to ensure completion of necessary tasks in an efficient, prudent manner. One extended shutdown, January through May, 1982, occurred during the assessment period. A steam generator tube rupture in January, 1982 resulted in premature entry (two months) into the annual refueling maintenance, and modification outage. An outage scheduling group consisting of one full time and three part time individuals provided good coordination, scheduling and sequencing of outage activities, considering 1) the extensive repair efforts required for the damaged steam generator and 2) the decision to enter the annual refueling outage earlier than originally planned. Outage meetings were held twice daily, with representatives from each discipline present. The meetings were well managed and provided good communication between departments, allowing for efficient short and long term scheduling and early problem resolution.

Region based inspections included refueling activities and post refueling startup testing. Outage activities, with the exception of refueling, were observed by the resident inspector. No violations were identified.

The licensee's approach to resolving routine problems encountered during refueling operations, exhibited conservatism, and a clear understanding of technical issues. A review of staffing in the area of refueling and reactor physics indicated that although good controls were maintained, it required excessively long hours by the nuclear engineer.

Problems associated with procedure development and personnel training following completion of modifications performed during outages is discussed in Functional Area 1.

Conclusion: Category 1

Board Recommendations: None

9. Licensing Activities

Licensing activities evaluated during the assessment period included:

- Restart SER following steam generator tube rupture
- Systematic Evaluation Program
- Fire Protection
- Loose Parts Monitoring System Alarms
- NUREG 0737
- Operator Licensing
- Miscellaneous Short Term Licensing Actions

There was consistent evidence of prior planning and assignment of priorities for individual licensing actions. Licensing reviews were performed in a timely, thorough manner and are technically sound. There were few longstanding regulatory issues attributable to the licensee. Decision making was consistently at a level that ensured adequate management review. This was particularly evident in the response to the January, 1982 steam generator tube rupture event and the Systematic Evaluation Program.

Staffing positions are identified with authorities and responsibilities well defined. The licensee's staffing was ample as indicated by their ability to continue the Systematic Evaluation Program reviews while coping with the demands placed on the staff by the steam generator tube rupture event.

The license training program is well defined and implemented. During the assessment period, complete examinations including written, oral and simulator examinations, were given to a group of candidates that consisted of the following: two (2) Senior Reactor Operators, three (3) Senior Operator Upgrades, two (2) Reactor Operators, and one (1) Instructor Certification. All candidates passed the examination and were issued licenses.

Conclusion: Category 1

Board Recommendation: None



V. SUPPORTING DATA AND SUMMARIES

1. Licensee Event Reports

Tabular Listing

Type of Events:

A.	Personnel Error . . . . .	4
B.	Design/Man./Constr./Install. . . . .	3
C.	External Cause . . . . .	0
D.	Defective Procedure. . . . .	3
E.	Component Failure. . . . .	7
X.	Other. . . . .	8
	Total	25

Licensee Event Reports Reviewed:

Report Nos. 81-13/03L through 82-15/03L

Causal Analysis

Four sets of common mode events were identified:

- a. LERs 81-21/03L, 82-11/03L and 82-15/03L reported that during surveillance testing the containment atmosphere radiation monitor return line check valve failed to seat properly due to dirt deposited on the seat of the valve. The foreign matter is believed to be from the carbon vanes of the monitor pump. Modifications to install a filter in the line is planned.
- b. LERs 82-15/03L and 82-16/03L (issued shortly after the assessment period) reported the failure of the 'B' Containment Spray Pump discharge check valve to close promptly during surveillance testing. The internals of the check valve, which is a containment isolation valve, are planned to be replaced in the near future.
- c. LERs 82-04/01T and 82-10/01T reported the orderly evacuation of watch posts during emergency radiological conditions. Technical Specifications have subsequently been amended providing allowance for evacuating fire watches during emergency conditions.

- d. LERs 82-07/01T and 82-08/01T were directly attributable to plant parameter changes during the steam generator tube rupture in January (i.e. cooldown rate).

2. Investigation Activities: none

3. Escalated Enforcement Actions

3.1 Civil Penalties - none

3.2 Orders

Orders modifying License, dated April 20, 1981, providing Technical Specifications to require operability and testing of primary coolant system pressure isolation valves-Event V valve configuration (issued to all licensees).

Order, issued July 10, 1981, confirming licensee commitments for TMI related requirements contained in NUREG 0737 (issued to all licensees).

3.3 Confirmatory Action Letters

A Confirmatory letter dated December 15, 1981 verifying actions to be taken by the licensee with regard to significant findings identified during the NRC Emergency Appraisal inspection.

3.4 Management Conferences

SALP Management Meeting at the R. E. Ginna Nuclear Power Plant on September 10, 1981.

TABLE 1

## TABULAR LISTING OF LERS BY FUNCTIONAL AREA

R. E. GINNA NUCLEAR POWER PLANT

<u>Area</u>	<u>Number/Cause Code</u>				<u>Total</u>
1. Plant Operations	D/1	X/3			4
2. Radiological Controls		D/1			1
3. Maintenance	E/7	A/1	B/1		9
4. Surveillance		A/1			1
5. Fire Protection	D/1	A/1	X/5	B/1	8
6. Emergency Preparedness	none				none
7. Security and Safeguards	none				none
8. Refueling	A/1				1
9. Licensing Activities	none				none
10. Other (Original Design Errors and Equipment Failures Not Classifiable Into Areas 1-9	B/1				1
	TOTAL				25

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

TABLE 2  
R. E. GINNA NUCLEAR POWER PLANT

LER SYNOPSIS

JULY 1, 1981 - JUNE 30, 1982

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
81-13/03L	30 Day	Leak in Immediate Borate Line
81-14/03L	30 Day	Inoperable Relay Room Halon System
81-15/01T	24 Hour	Violation of Containment Integrity
81-16/03L	30 Day	IC Safety Injection Pump Breaker Failure
81-17/03L	30 Day	Fire Spray/Sprinkler System Inoperable
81-18/03L	30 Day	Inoperable Fire Suppression System Zones
81-19/03L	30 Day	Inadvertent Fire Suppression System Actuation
81-20/03L	30 Day	Fire Barrier Penetration Seals Not Intact
81-21/03L	30 Day	Containment Air Sample Return Line Check Valve- Excessive Leakage
81-22/01T	24 Hour	Error Discovered in the Accident Analysis
82-01/03L	30 Day	Potential Degradation of Containment Integrity
82-02/03L	30 Day	Reactor Coolant Drain Tank Pump Line Leak
82-03/01T	24 Hour	'B' Steam Generator Tube Rupture
82-04/01T	24 Hour	Removal of Fire Watches from Inoperable Zones
82-05/03L	30 Day	Pressurizer PORV Inoperable
82-06/01T	24 Hour	Inadvertent Reactor Coolant System Dilution
82-07/01T	24 Hour	Reactor Coolant System Cooldown Rate Exceeded
82-08/01T	24 Hour	Temperature Difference Exceeded Across the 'B' Steam Generator Tubesheet
82-09/03L	30 Day	Inoperable Motor Driven Fire Pump During Modifications

TABLE 2 (CONTINUED)

<u>LER Number</u>	<u>Type</u>	<u>Summary Description</u>
82-10/01T	24 Hour	Removal of Fire Watches from Inoperable Fire Zone
82-11/03L	30 Day	Containment Air Sample Return Line Check Valve - Excessive Leakage
82-12/03L	30 Day	Inoperable Relay Room Halon System
82-13/01T	24 Hour	Inoperable Fire Detection Zones
82-14/03L	30 Day	Containment Spray Pump Discharge Check Valve - Excessive Leakage
82-15/03L	30 Day	Containment Air Sample Return Line Check Valve - Excessive Leakage

TABLE 3

INSPECTION HOURS SUMMARY (7/1/81 - 6/30/82)

R. E. GINNA NUCLEAR POWER PLANT

	<u>HOURS</u>	<u>% OF TIME</u>
1. Plant Operations . . . . .	865	35
2. Radiological Controls . . . . .	204	8
3. Maintenance . . . . .	123	5
4. Surveillance . . . . .	204	8
5. Fire Protection/Housekeeping . . . . .	79	3
6. Emergency Preparedness . . . . .	380	36
7. Security and Safeguards . . . . .	72	3
8. Refueling . . . . .	44	2
* Total	<u>2471</u>	<u>100</u>

\* Total hours does not include approximately 400 hours by Region 1 personnel responding to the steam generator tube rupture event; 3000 hours spent by the NRC Task Force reviewing the steam generator tube rupture event, and approximately 50 hours by the resident inspector assisting the Task Force.



TABLE 4  
INSPECTION REPORT ACTIVITIES  
R. E. GINNA NUCLEAR POWER PLANT

REPORT	INSPECTOR	AREAS INSPECTED
81-13	Resident	Routine onsite inspection of plant operations, surveillance testing, maintenance, radiological controls, physical security, Licensee Event Reports and accessible portions of the facility during plant tours.
81-14	Specialist	Planning, preparation and performance of post-tensioning tendon lift-off testing
81-15	Resident	Routine
81-16	Specialist	LSA waste shipped to burial site
81-17	Resident	Routine & TMI action plan items
81-18	---	SALP management meeting
81-19	Specialist	Fire protection/prevention program
81-20	Specialist	Transportation
81-21	Resident	Routine & TMI action plan items
81-22	Specialist	Emergency preparedness appraisal
81-23	Specialist	IE Bulletin 80-10, Contamination of nonradioactive system and resulting potential for unmonitored, uncontrolled release to environment
81-24	Resident	Routine & TMI action plan items
82-01	Specialist	Emergency preparedness exercise observation and inspection
82-02	Specialist	Physical security
82-03	Resident	Routine
82-04	Specialist	Licensee's implementation of corrective actions for deficiencies identified during the NRC Health Physics Appraisal

TABLE 4 (Continued)

REPORT	INSPECTOR	AREAS INSPECTED
82-75	Specialist	Refueling activities and outage maintenance
82-06	Resident	Routine & material accountability for steam generator modifications
82-07	Resident	Routine & material accountability for steam generator modifications
82-08	Specialist	Containment penetration leakage testing program; and preparations for the containment integrated leakage rate test
82-09	Specialist	Review allegations and circumstances concerning radiation training for visitors
82-10	Resident	Routine & material accountability for steam generator modifications
82-11	Specialist	Radiological & biological environmental monitoring programs, review of environmental surveys and sampling from the steam generator tube rupture and nonradioactive effluent release rates and limits
82-12	Resident	Routine & TMI action plan items

TABLE 5  
VIOLATIONS (7/1/81 - 6/30/82)  
R. E. GINNA NUCLEAR POWER PLANT

A. Number and Severity Level of Violations

a. Interim NRC Policy Severity Level (July 1 - March 9)

Severity Level I	0
Severity Level II	0
Severity Level III	1
Severity Level IV	0
Severity Level V	6
Severity Level VI	1

b. NRC Policy Severity Levels March 10 - June 30

Severity Level I	0
Severity Level II	0
Severity Level III	0
Severity Level IV	0
Severity Level V	3

Total = 11

B. Violations Vs. Functional Area

(1) July 1 - March 9

FUNCTIONAL AREAS	<u>Severity Levels (July 1 - March 1)</u>					
	I	II	III	IV	V	VI
1. Plant Operations	0	0	0	0	1	1
2. Radiological Controls	0	0	1	0	2	0
3. Maintenance	0	0	0	0	1	0
4. Surveillance	0	0	0	0	2	0
5. Fire Protection	0	0	0	0	0	0
6. Emergency Preparedness	0	0	0	0	0	0
7. Security & Safeguards	0	0	0	0	0	0
8. Refueling	0	0	0	0	0	0
9. Licensing Activities	0	0	0	0	0	0
Totals	0	0	1	0	6	1

TABLE 5 (Continued)

B. Violations Vs. Functional Area

(2) March 10 - June 30

FUNCTIONAL AREAS	<u>Severity Levels</u>				
	I	II	III	IV	V
1. Plant Operations	0	0	0	0	1
2. Radiological Controls	0	0	0	0	1
3. Maintenance	0	0	0	0	0
4. Surveillance	0	0	0	0	0
5. Fire Protection & Housekeeping	0	0	0	0	1
6. Emergency Preparedness	0	0	0	0	0
7. Security & Safeguards	0	0	0	0	0
8. Refueling	0	0	0	0	0
9. Licensing Activities	0	0	0	0	0
Totals	0	0	0	0	3

Total Violations = 11

TABLE 5 (Continued)

## C. Summary

Inspection No.	Inspection Date	Subject	Req.	Sev.	Are
81-13	July 1 - 31	Control Room Official Record did not maintain complete and accurate log entries	T.S.	VI	1
81-15	Aug. 1 - 31	The tritium concentration in the reactor coolant system was not determined on a weekly basis	T.S.	V	2
81-15	Aug. 1 - 31	A written report documenting inoperable hydraulic snubbers found during functional testing was not submitted	T.S.	V	3
81-16	July 10	Damaged Radioactive Waste Shipping Container	10 CFR 71	III	2
81-24	Nov. 11 - Dec. 31	Failure to follow procedures during pre-operational testing of the fire protection system	T.S.	V	4
81-24	Nov. 11 - Dec. 31	A written report was not submitted documenting that a portion of the fire suppression/sprinkler system was inoperable for greater than 14 days	T.S.	V	1
82-03	Jan. 1 - Feb. 28	Failure to properly calibrate and maintain records for several pieces of measuring and test equipment	10 CFR 50	V	4

TABLE 5 (Continued)

<u>Inspection No.</u>	<u>Inspection Date</u>	<u>Subject</u>	<u>Req.</u>	<u>Sev.</u>	<u>Are</u>
82-03	Jan. 1 - Feb. 28	The calibration frequency for neutron survey meters was not reduced when instrument history indicated the need	10 CFR 50	V	2
82-09	May 3 - 6	Special Work permits did not accurately describe the work function, location, radiation or contamination levels	T.S.	V	2
82-10	May 1 - 31	Quality Control Surveillance Reports were not properly completed, reviewed by supervision, or tracked.	10 CFR 50	V	1
82-12	June 1 - 30	Inadequate housekeeping practices in radiological and non-radiological areas	10 CFR 50	V	5