

Region I

Report No. 50-244/82-18

Docket No. 50-244

License No. DPR-18 Priority -- Category C

Licensee: Rochester Gas and Electric Corporation

49 East Avenue

Rochester, New York 14649

Facility Name: R. E. Ginna Nuclear Power Plant

Inspection at: Ontario, New York

Inspection conducted: September 1-30, 1982

Inspectors: RP Zimmerman
 R. P. Zimmerman, Senior Resident Inspector

10/8/82
 date signed

W. H. Baunack
 W. H. Baunack, Project Inspector, DPRP

10/13/82
 date signed

Approved by: H. B. Kister
 H. B. Kister, Chief, Reactor Projects
 Section 1C, Division of Projects &
 Resident Programs

date signed
10/13/82
 date signed

Inspection Summary:

Inspection on September 1-30, 1982 (Report No. 50-244/82-18)

Areas Inspected: Routine, onsite, regular and backshift, inspection by the resident inspectors (110.5 hours). Areas inspected included: plant operations; surveillance testing; maintenance; Licensee Event Reports; general, licensed and non-licensed employee training programs; followup of licensee actions on previous inspection findings; follow-up of implementation of Three Mile Island Lessons Learned; periodic and special reports and accessible portions of the facility during plant tours.

Results: No violations were identified during this inspection.

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DETAILS

1. Persons Contacted

The below listed technical and supervisory level personnel were among those contacted:

- E. Beatty, Operations Supervisor
- J. Bodine, QC Engineer
- L. Boutwell, Maintenance Supervisor
- C. Edgar, I & C Supervisor
- D. Filkins, Supervisor Health Physics and Chemistry
- D. Gent, Results and Test Supervisor
- G. Larizza, Operations Engineer
- T. Meyer, Technical Engineer
- R. Morrill, Training Coordinator
- B. Quinn, Health Physicist
- T. Schuler, Maintenance Engineer
- B. A. Snow, Plant Superintendent
- S. M. Spector, Assistant Plant Superintendent
- J. Straight, Fire Protection and Safety Coordinator
- R. Wood, Supervisor of Nuclear Security

The inspector also interviewed and talked with other licensee personnel during the course of the inspection.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (244/80-08-02): Licensee to revise containment integrated leak rate test procedure to include functions of the Containment Isolation Auxiliary Relay Cabinet. The inspector verified that Refueling Shutdown Surveillance Procedure (RSSP)-6.0, Containment Integrated Leakage Rate Test, Revision 10, May 5, 1982 has been revised to include the functions of the Containment Isolation Auxiliary Relay Cabinet.

(Open) Inspector Follow Item (244/80-08-04): Environmental qualification of Sump A pressure transducers. Initial efforts by the licensee in the Spring, 1981 to determine accurate radiation levels in Containment Sump A were inconclusive. In order to assure the post accident environmental qualification of the installed transducers, used to measure sump level, the licensee intends on mounting film badges inside the sump during the current plant shutdown. The badges will be retrieved after a short period of full power operation (several days) and the measured radiation dose extrapolated to determine the length of time to reaching the integrated radiation qualification level of 10^7 Rads. In addition, during the present shutdown, a portable radiation monitoring device will be placed in the sump with the capability during power operation to remotely determine the dose rate from the lower level of containment. This will serve as an added check to assure an accurate reading of radiation level.

(Closed) Inspector Follow Item (244/80-12-01): Annual Exam re-take. The non-shift, licensed, staff member retook the 1980 annual written examination in December, 1980 and received a passing grade. The individual is currently administratively restricted from assuming licensed duties following failure of the 1982 annual written examination.

(Closed) Violation (244/81-16-01): LSA waste delivered to a burial site with a hole in the side of a drum used as the shipping container. The inspector verified that to prevent recurrence the drum lifting device has been replaced with a new type and that Radioactive Discharge Procedure (RD)-10.6, Shipping of Low Level Radioactive Waste, Revision 8, August 4, 1982 has been revised to include quality control inspections of waste containers prior to being loaded and also after they have been placed on the transportation vehicle.

(Closed) Unresolved Item (244/81-21-03): Licensee to develop procedures for the loss of each instrument bus. The inspector verified that Turbine Plant Procedure (T)-25, Instrument and Control Bus, Revision 6, February 27, 1982 has been revised to describe the plant response to the loss of each instrument bus and provides a list of essential control board indicators affected by a loss of an instrument bus.

(Closed) Unresolved Item (244/81-L0-08): Delta temperature limit exceeded across 'B' steam generator tubesheet. The Ginna Steam Generator Tube Failure Incident Evaluation Report dated April 12, 1982 describes the evaluations performed of the thermal and pressure differential across the tubesheet. Results of this evaluation show that no detrimental consequences to the tubesheet have occurred.

3. Review of Plant Operations

a. Throughout the reporting period, the inspector reviewed plant operations. Activities in progress included routine, full power operation with the exception of a turbine runback to 95% power on September 16 when a dropped control rod channel was left defeated (tripped) while reinstating Power Range Channel IV after surveillance testing; and an increase in reactor power to approximately 102% on September 24 when the number 2 turbine control valve went wide open from what appears to have been a malfunction of the impulse pressure signal to the electro-hydraulic control system. Operator action quickly returned power level to normal. Investigation into the cause of the malfunction is continuing. A scheduled plant shutdown commenced later on September 24 to permit steam generator tube eddy current testing, TV inspection of the steam generator secondary sides, and evaluation of periodic impacts received on the steam generator metal impact monitors. The outage is scheduled to last thirteen days.

b. Shift Logs and Operating Records

Operating logs and records were reviewed against Technical Specification and administrative procedure requirements. Included in the review were:

Control Room Log	-	daily during control room surveillance
Daily Surveillance	-	daily during control room surveillance
RCS Leakage Surveillance	-	daily during control room surveillance
Shift Supervisor's Log	-	daily during control room surveillance
Plant Recorder Traces	-	daily during control room surveillance
Plant Process Computer Printouts	-	daily during control room surveillance
Station Event Reports	-	all issued between 9/1-30/82
Maintenance Work Orders and Trouble Cards	-	all issued between 9/1-30/82

The logs and records were reviewed to verify that entries were being properly made; entries involving abnormal conditions provided sufficient detail to communicate equipment status, deficiencies, corrective action restoration and testing; records were being reviewed by management; operating orders did not conflict with the Technical Specification or reporting requirements; logs and records were maintained in accordance with Technical Specification and administrative procedure requirements.

c. Plant Tour

1. During the course of the inspection, tours of the following areas were conducted:
 - Control Room
 - Auxiliary Building
 - Intermediate Building (including control point)
 - Containment
 - Service Building
 - Turbine Building
 - Diesel Generator Rooms
 - Battery Rooms
 - Screenhouse
 - Yard Area and Perimeter

2. The following observations resulted from the tours:

- a. Monitoring instrumentation. Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.
- b. Annunciator alarms. Various alarm conditions which had been received and acknowledged were observed. These were discussed with shift personnel to verify that the reasons for the alarms were understood and corrective action, if required, was being taken.
- c. Shift manning. Control room and shift manning were observed for conformance with 10 CFR 50.54 (K), Technical Specifications, and administrative procedures.
- d. Radiation protection controls. Areas observed included control point operation, posting of radiation and high radiation areas, compliance with Radiation Work Permits (RWPs) and Special Work Permits (SWPs), personnel monitoring devices being properly worn, and personnel frisking practices. Additionally, radiation/contamination surveys associated with a spent resin cask shipment were reviewed prior to the shipment leaving the site on September 14.
- e. Equipment lineups. Valve and electrical breakers were verified to be in the position or condition required by Technical Specifications and plant lineup procedures for the applicable plant mode. This verification included control board indications daily and field observations made during routine plant tours.
- f. Equipment tagging. Selected equipment, for which tagging requests had been initiated, was observed to verify that tags were in place and the equipment in the condition specified.
- g. Fire protection. Fire detection and fire fighting equipment and controls were observed for conformance with Technical Specifications and administrative procedures.
- h. Security. Areas observed for conformance with regulatory requirements, and site security plan and administrative procedures, included vehicle and personnel access, protected and vital area integrity.
- i. Plant housekeeping. Plant conditions were observed for conformance with administrative procedures. Storage of material and components was observed with respect to prevention of fire and safety hazards. Housekeeping was evaluated with respect to controlling the spread of surface and airborne contamination.

No violations were noted.

4. Inspector Witnessing of Surveillance Test

- a. The inspector witnessed the performance of surveillance testing of selected components to verify that the surveillance test procedure was properly approved and in use; test instrumentation required by the procedure was calibrated and in use; Technical Specifications were satisfied prior to removal of the system from service; test was performed by qualified personnel; the procedure was adequately detailed to assure performance of a satisfactory surveillance; and test results satisfied the procedural acceptance criteria or were properly dispositioned.
- b. The inspector witnessed the performance of portions of the following tests:
 - Periodic Test (PT)-13.4.17, Multimatic Valve Testing-Suppression System #S03 Aux. Bldg. Mezz. level west Auto Deluge, Revision 1, July 16, 1982, performed September 15, 1982.
 - PT-13.4.18, Flood Valve Testing-Suppression System #S04 Aux. Bldg. Mezz. Auto Deluge, Revision 1, July 16, 1982, performed September 15, 1982.
 - PT-3, Containment Spray Pumps and NaOH Additive System, Revision 28, July 7, 1982, performed September 22, 1982.

This was the first use of these surveillance procedures on the newly installed fire suppression systems. As identified by the licensee some revisions to the procedures will be necessary to clarify certain steps. Even though the need for some changes to the procedures were identified, this presented no problem as the personnel performing the surveillances were thoroughly familiar with the equipment being tested and the objectives of the test.

During performance of PT-3, the 'B' Containment Spray Pump Discharge Check Valve (862B) failed to promptly close due to excessive leakage. V862B is a containment isolation valve which has had several recent repetitive leakage failures. The subject penetration was isolated and the 'B' Containment Spray System declared inoperable in accordance with Technical Specifications. The seating surface of V862B was re-faced during the current outage and functionally tested satisfactorily.

No violations were identified.

5. Inspector Witnessing of Plant Maintenance and Modifications

- a. During the inspection period, the inspector observed maintenance and problem investigation activities to verify compliance with regulatory requirements, including those stated in the Technical Specifications; compliance with administrative and maintenance procedures; compliance with applicable codes and standards; required QA/QC involvement; proper use of safety tags; proper equipment alignment and use of jumpers; personnel qualifications; radiological controls for worker protection; retest requirements;

and ascertain reportability as required by Technical Specifications. In a similar manner the implementation of design changes and modifications were reviewed. Compliance with requirements to update procedures and drawings were verified and post modification acceptance testing was evaluated.

b. The inspector witnessed the following maintenance activity:

- Installation on September 2, of a filter in the return line between the containment gas and particulate monitors and containment isolation valve 1599.

Filter installation was performed in an attempt to reduce the amount of foreign matter buildup on the seat of V1599, which was believed to have been the reason for recurrent leakage failures of the check valve. Functional testing over a several day period resulted in an additional leakage failure. V1599 is being replaced with an air operated valve during the present outage.

No violations were identified.

6. Implementation of Three Mile Island (TMI) Lessons Learned

- a. The inspector reviewed the licensee's actions on requirements resulting from the NRC staff investigations of the TMI accident.
- b. The below item is categorized by the number assigned in NUREG 0737.

II.F.I, Attachment 6 Containment Hydrogen Monitor

Requirements

Reference: NUREG 0737

- Indication of hydrogen concentration in the containment atmosphere shall be provided in the control room. (If indication is not available at all times, continuous indication and recording shall be functioning within 30 minutes of the initiation of safety injection.)
- Measurement capability shall be provided over the range of 0 to 10% hydrogen concentration under both positive and negative ambient pressure.
- The accuracy and placement of the hydrogen monitors shall be provided and justified to be adequate for their intended function.
- Instrumentation should be environmentally qualified in accordance with Regulatory Guide 1.89.
- Instrumentation should be energized from station Class 1E power sources.

Licensee Commitments

- References: (a) J. Arthur (RG&E) letter to D. Crutchfield (NRC), dated November 25, 1981.
(b) J. Maier (RG&E) letter to D. Crutchfield (NRC), dated January 19, 1982.
(c) J. Maier (RG&E) letter to D. Crutchfield (NRC), dated April 23, 1982.

The licensee representative stated that installation would be delayed due to questions surrounding the qualification of the equipment and engineering revisions to the system. The monitors were expected to be installed and operational by the end of the spring, 1982 refueling outage.

Inspection Findings

The inspector's review included discussions with licensee personnel, observations in the Control Room and review of the following documentation:

- Engineering Work Request 2607C, Containment Hydrogen Monitoring, Revision 1, August 6, 1981.
- Purchase Order N-EZ-06334.
- Environmental Qualification Test Report of Delphi IV Hydrogen Analyzer, December 1980.
- Test Report IEEE-323-1974, Prototype Qualification for Hydrogen Analyzer Systems K-III and K-IV, September 1981.
- Primary Chemistry Procedure (PC)-23.7, Containment Atmosphere Hydrogen Monitor, Revision 0, June 25, 1982.
- Emergency Procedure (E)-1.1, Immediate Action and Diagnostics for Spurious Actuation of SI, LOCA, Loss of Secondary Coolant, and Steam Generator Tube Rupture, Revision 25, August 14, 1982.

The system consists of two redundant hydrogen concentration monitoring devices, located outside containment. Each monitor transmits separate signals to the control room for display and recording. The system is normally in a standby mode requiring a manual start signal from remote panels located in the Relay Room. E-1.1 has been revised to add a step in the subsequent actions of the procedure to ensure the Health Physics Department places the system in the analyze mode and ensures proper operation of the system.

Although the system was declared operable at the conclusion of the Spring 1982 outage, adequacy of pre-operational functional testing, and periodic surveillance and calibration tests remains to be verified by the inspector. This review will be documented in a subsequent inspection report.

7. General, Licensed, and Non-licensed Employee Training Programs

General Employee Training

- References:
- ANSI N18.1-1971, Selection and Training of Personnel for Nuclear Power Plants.
 - Administrative Procedure A-103.1, Ginna Station Training, Revision 1, November 23, 1981.
 - A-103.2, General Employee Training, Revision 0, March 8, 1981.
 - A-103.3, Temporary Employee Training, Revision 1, September 11, 1981.

Personnel assigned at Ginna are required to attend classroom training in security, quality assurance/control, and safety prior to receiving unescorted access within the protected area. Additionally, temporary personnel entering radiologically controlled areas and all permanent plant personnel are required to attend classroom health physics training. Refreshers for the four areas are required annually. Based on discussions with various licensee and non-licensee personnel, review of training records, and prior attendance at general employee training classes, the inspector verified that the scope, technical content, and effectiveness of the program was satisfactorily implemented in accordance with the above requirement and administrative procedures. The licensee has also recently increased the scope of the health physics training to provide "hands-on" training with health physics monitoring devices and donning of protective clothing.

Licensed Operator Requalification Training

The inspector reviewed Licensed Operator Requalification Training to verify program implementation in accordance with 10 CFR 55, Appendix A, NUREG 0737 Item 1.A.2.1; and Administrative Procedure (A)-102.14, R. E. Ginna Operator Requalification Program, Revision 5, September 8, 1981. The following areas were included in the review:

- completion of the training program in accordance with an established schedule;
- results of the 1980 and 1981 annual written examinations;
- licensed individual attendance at required lectures;
- performance of required control manipulations, on-shift discussions, and job cross training; and,
- emergency procedure review.

The requalification training program was determined to be effectively implemented in accordance with the above requirements. Two findings; however, which warrant licensee attention were identified.

- A non-shift licensed staff member had not completed all aspects of the requalification program in that no job cross-training, such as control room watchstanding, had been performed during calendar years 1980 and 1981. A-102.14 requires job cross-training for at least a total of eight hours every four months. A senior reactor operator licensee renewal was requested for the individual by letter dated September 22, 1981 from J. Maier (RG&E) to P. Collins (NRC). Although the license renewal letter factually stated the applicant's experience under his existing license, it did not directly address whether the applicant had satisfactorily completed the requalification program. The inspector stated that in future license renewal applications if the applicant has not completed the requalification program it should be so stated, including the justification for requesting a license renewal. The licensee representative acknowledged the inspector's comment. Applications for license renewal will be further reviewed during a subsequent inspection (82-18-01).
- a non-shift licensed staff member who received a quiz grade of 70.5% following an Instrumentation & Control classroom lecture on May 15, 1981 was inadvertently given the identical quiz during a re-exam on June 10, 1981. This was considered by the inspector to have been an isolated case, as no other problems with excessive duplication of quiz/exam questions were noted. The licensee representative stated that additional efforts would be taken to avoid similar occurrences.

Non-Licensed Personnel Training

- References:
- ANSI N18.1-1971, Selection and Training of Personnel for Nuclear Power Plants;
 - Administrative Procedure (A)-102.4, Indoctrination and Training of Quality Control Personnel, Revision 2, November 25, 1981;
 - A-102.9, Maintenance Training Program, Revision 1, January 12, 1981;
 - A-103.9, Fire Brigade Training, Revision 0, December 31, 1981;
 - A-103.10, Radiation Protection Technician Training and Responsibility Limits, Revision 0, August 4, 1982; and
 - A-103.13, R. E. Ginna Non-License Operator Training, Revision 2, July 16, 1982.

The inspector reviewed each of the above disciplines for adequacy of a formalized training program. Discussions with plant personnel and a sampling review of training records verified satisfactory implementation of the above programs. In addition to "in house" training classes, personnel attendance at vendor schools and workshops is supported by management.

8. Licensee Event Report (LER's)

The inspector reviewed the following LER to verify that the details of the event were clearly reported, and to verify the accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required, and whether generic implications were involved. The inspector also verified that the reporting requirements of Technical Specifications and station administrative and operating procedures had been met; that appropriate corrective action had been taken; that the event was reviewed by the Plant Operations Review Committee; and that the continued operation of the facility was conducted within the Technical Specification limit.

82-20: Exceeded surveillance test frequency for numerous fire detection instruments--July 12, 1982. The licensee identified that the surveillance tests were overdue and initiated the necessary fire watches as required by Technical Specifications. The oversight resulted from inadequate tracking of the recently issued Technical Specification surveillance testing requirement for fire detection instruments.

9. Review of Periodic and Special Reports

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specification 6.9.1 and 6.9.3 were reviewed by the inspector. This review included the following considerations: the report contains the information required to be reported by NRC requirements; test results and/or supporting information were consistent with design predictions and performance specifications; planned corrective action was adequate for resolution of identified problems; determination whether any information in the report required classification as an abnormal occurrence; and the validity of the reported information. Within the scope of the above, the following periodic report was reviewed by the inspector.

-- Monthly Operating Report for August, 1982.

10. Exit Interview

At periodic intervals during the course of the inspection, meetings were held with senior facility management to discuss the inspection scope and findings.