

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-244/78-21

Docket No. 50-244

License No. DPR-18 Priority -- Category C

Licensee: Rochester Gas and Electric Corporation

89 East Avenue

Rochester, New York 14649

Facility Name: R. E. Ginna Nuclear Power Plant, Unit 1

Inspection at: Ontario, New York

Inspection conducted: October 23-27, 1978

Inspectors: *William J. Newmond*
W. Raymond, Reactor Inspector

11/21/78
date signed

Thomas Foley
T. Foley, Reactor Inspector Trainee

11/21/78
date signed

Approved by: *R. R. Keimig*
R. R. Keimig, Chief, Reactor Projects
Section No. 1, RO&IS Branch

date signed
11-22-78
date signed

Inspection Summary:

Inspection on October 23-27, 1978 (Report No. 50-244/78-21)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of plant operations, started on a backshift, including facility logs; records and plant status; status of previous inspection findings; rework of pressurizer splice insulation; changes to the licensee's organization; in-office review of LERs; on-site LER followup; licensee action on circulars and bulletins; and, periodic and special reports submitted by the licensee. The inspection involved 70 inspector hours on site by one NRC regional based inspector and one inspector trainee.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

- *Mr. W. Backus, Operations Supervisor
- *Mr. S. Bullock, Quality Control Engineer
- Mr. C. Edgar, I&C Foreman
- Mr. D. Horning, Shift Foreman
- Mr. R. Morrill, Training Coordinator
- *Mr. J. Noon, Assistant Plant Superintendent
- *Mr. B. Snow, Plant Superintendent
- Mr. S. Spector, Maintenance Engineer

The inspectors also interviewed other licensee employees during the course of the inspection, including members of the operations, health physics, maintenance, quality control and general office staff.

*denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (244/77-04-01): Modified Spent Fuel Pool Locations. The inspector reviewed the licensee's corrective actions in regard to the spent fuel pool modification. A plug for the 596th storage location (position H-1) was observed to be installed as required. EPM No. QE314G, Rev. 1 dated August 23, 1977, steps 3.1.2 and 3.1.4, provide additional instructions regarding design control as described in the May 26, 1977 letter from the licensee. QAM Section 3, Rev. 7, dated March 1, 1978, "Configuration Control" incorporates the same requirements. PDR-0048, dated August 23, 1977, was issued to engineering personnel to describe the changes made to the EPM and to prescribe personnel review of the affected changes. Internal memorandum dated September 26, 1977 documented that attestation sheets had been received by the QA department from engineering personnel, in acknowledgement of the instructions provided by PDR-0048. The inspector had no further questions on this item.



(Closed) Followup Item (244/78-04-02): Personnel Changes. Licensee changes in organization and personnel were reviewed and found to be in conformance with applicable requirements, as described in paragraph 5 of this report.

(Closed) Unresolved Item (244/77-17-08): Technical Specification Submittal. Technical Specification (TS) Change Request dated May 8, 1978 specifies that TS 4.1 be amended to require testing of the PR NI lower power setpoint prior to each reactor startup.

(Open) Unresolved Item (244/77-21-01): SI Pump Breaker for Bus 16. CAR 1132 documents the corrective actions taken for circuit breaker DB-50 and is still open. The inspector reviewed a vendor report dated February 28, 1978 (WIN 236-2411) which documents the vendor inspection results for the subject breaker. No anomalies were identified which would have caused the breaker to fail to close. The inspector stated that this item would remain unresolved pending completion of the licensee's review of the item and satisfactory close-out of CAR 1132.

(Open) Unresolved Item (244/77-14-07): Conflicts in Record Retention Requirements. The inspector noted that QC 1701, Rev. 11, dated July 28, 1978 and A-50.5, Rev. 5, dated April 12, 1978, still contain conflicting requirements in regard to retention of operator requalification records. The licensee stated that this item would be readdressed to provide a timely resolution.

(Closed) Unresolved Item (244/78-20-01): Rework of Pressurizer Circuits. Newly installed insulation for the pressurizer circuit splices was reviewed on October 27, 1978 and found to be completed in accordance with vendor installation recommendations. Additional details are provided in paragraph 4 of this report.

3. Review of Plant Operations

a. Shift Logs and Operating Records

(1) The inspector reviewed the following logs and records:

- Official Record, August 15 - October 23
- Shift Foreman Record, September 1 - October 23
- Auxiliary Operators' Primary Side Logs; August 15 - October 23



- Auxiliary Operators' Secondary Side Logs, August 15 - October 23
- By-pass of Safety Function and Jumper Control Request, (75-31), (78-25) and (78-30)
- Completed Ginna Station Event Reports (A-25.1) for events which occurred during the period August 12 - September 6, 1978
- Daily Surveillance Log, October 1 - October 23
- Licensee Event Reports, August 12 - September 6
- Operator Plans, August 15 - October 23
- Equipment Running Hours Log, October 23 only
- Ginna Station Maintenance Work Order and Trouble Reports, January 77 - October 78
- Station Holding Log, September 16 - October 25
- Daily Electrical Log and Generation Log
- RCS Leakage - Surveillance Logs
- Locked Radiation Logs
- Daily Chemistry Logs
- Completed records issued for control of LCO's for Operating Equipment (A-52.4) during the period July 19 - September 20 as described below:

<u>Date</u>	<u>Affected Equipment</u>
9/8/78	Containment Recirculation Fan
9/18/78	Containment Recirculation Fan
9/20/78	RHR Valve (852-A)
8/16/78	B Diesel Bus (Bkr 16)
8/31/78	RHR Valve (V625)
8/19/78	RHR Valve (MOV 852B)



(2) Periodic test procedures were reviewed as follows:

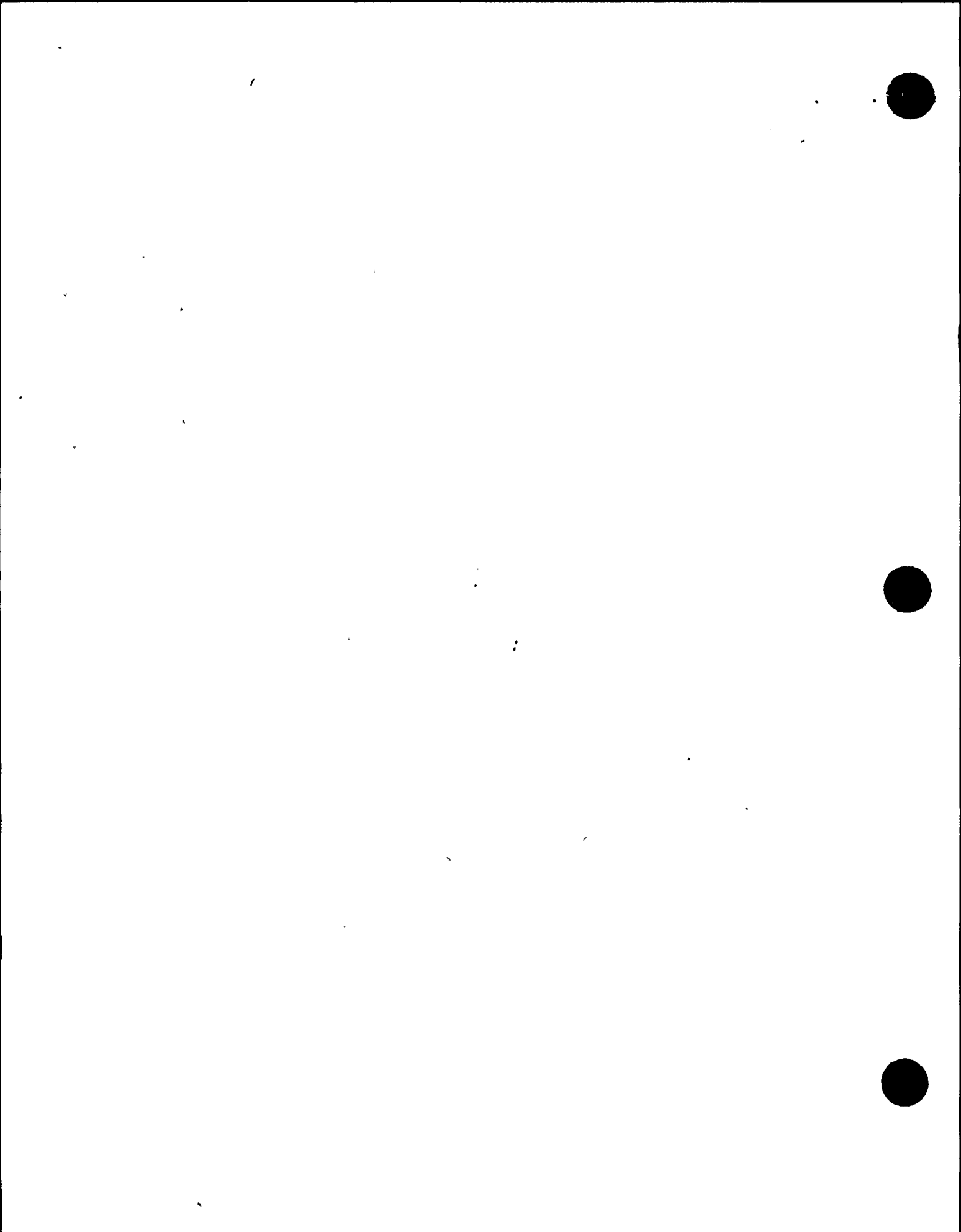
- PT-9, Undervoltage and Underfrequency Protection 11A and 11B and 4160 Volt Bus, Rev. 3, completed September 27, 1978.
- PT-6.1, Source Range Nuclear Instrument System, Rev. 11, completed October 23, 1978
- PT-17.2, Process Radiation Monitor, R11-R21 and Iodine Monitors R10A and R10B, Rev. 27, completed September 19, 1978
- PT-12.1, Emergency Diesel Generator 1A, Rev. 7, completed October 5, 1978
- PT-20, Main Steam Isolation Valve Solenoid Trip Test, Rev. 2, completed July 20, 1978

(3) The logs and records were reviewed to verify that:

- Log sheet entries are filled out and initialed
- Log entries involving abnormal conditions are sufficiently detailed
- Log book reviews are being conducted by the staff
- Operating orders do not conflict with the intent of the Technical Specification (TS)
- Jumper log entries do not conflict with TS
- Problem identification reports confirm compliance with TS reporting and LCO requirements.

(4) Acceptance criteria for the above review included inspector judgement and requirements of applicable Technical Specifications and the following procedures:

- A-17, "Plant Operations Review Committee Operating Procedure, Revision 21.



- A-20, "Control Room Logs", Revision 7.
 - A-25, "Reporting of Unusual Plant Conditions," Revision 7.
 - A-25.1, "Ginna Station Event Report," Revision 11.
 - A-46, "Bypass of Safety Function and Jumper Control," Revision 4.
 - A-52.2, "Control of Locked Valve Operation," Revision 22.
 - A-52.1, "Shift Organization, Relief and Turnover," Revision 5.
 - A-52.4, "Control of Limiting Conditions for Operations," Revision 12.
 - A-52.5, "Control of Limiting Conditions for System Specifications," Revision 4.
 - A-52.6, "Operations Standing Order," Revision 3.
 - A-52.7, "Operations Plan," Revision 1.
 - QC 1701, "Quality Assurance Records," Revision 11.
- (5) No items of noncompliance were identified and except as noted below, the inspector had no further questions in this area.
- (a) During the review of Ginna Station Work Order and Trouble Reports, the inspector noted that a substantial number of work orders were still outstanding, dating back to January 1977. The inspector conducted a sampling review of work orders maintained in the Shift Foreman's office to ascertain the nature, importance and status of the outstanding items. The findings are as follows:



- (1) A few of the work orders were non-safety related and could be closed out at any time;
- (2) Some work orders, which could not be considered to pose an immediate threat or personnel safety, involved items which nevertheless were significant and should receive more management attention to assure a timely close-out;
- (3) Some of the work orders listed as outstanding were found to be completed, indicating that work order forms are not being cleared when maintenance is finished.

This problem with work orders was identified to the licensee in inspection report 50-244/78-18 conducted August 14-18, 1978, at which time the licensee stated that a comprehensive review of the Work Order and Trouble Report system will be completed to (1) evaluate and reassign priority to close important items, and (2) update the file to assure it reflects an accurate completion status. The licensee stated that this review would be completed by November 31, 1978.

This item continues to be unresolved pending completion of Licensee's actions and subsequent review by the NRC:RI.

- (b) During reviews of the shift foreman's log and the official record, many instances of minor discrepancies (conflicts with Ginna administrative procedures) were noted. Additionally, several minor discrepancies were noted in procedures PT-17.2, completed on September 19 and October 19, 1978, in that deviations from established limits were not noted in the procedure and corrective actions were apparently not initiated. Subsequent review of the discrepancies by the inspector identified no technical basis for a safety concern. However, the inspector expressed concern over the apparent failure to follow-up on deviations from procedural limits and to provide formal (documented) resolution. These



items were discussed with the licensee at the exit interview and the licensee indicated that more management attention would be given to this area. The inspector determined that the discrepancies noted appeared to be isolated instances of problems in the record keeping area. This item is unresolved pending further review of logs and completed procedures during subsequent inspections (50-244/78-21-01).

b. Plant Tour

The inspector conducted tours of the accessible plant areas listed below at various times during October 24-27, 1978 to observe the status of plant systems and conditions and to observe activities in progress. Additionally, the inspector observed Control Room activities and plant system status at 0200 hours on October 24, 1978. The plant areas inspected were as follows: Auxiliary Building, Intermediate Building, Turbine Building, Reactor Containment, Safeguard Pump Area, Main and Auxiliary Feedwater Pump Areas, and Cable Tunnel.

(1) The following observations/determinations were made:

- Radiation controls established by the licensee, including posting of radiation areas, radiation work permits in use, the condition of step off pads, and the disposal of protective clothing, were observed. Actual radiation levels present at various locations in the auxiliary building and containment were measured and compared to posted values.
- Control Room and local monitors were observed to verify plant operation in conformance with Technical Specification LCO requirements. Items examined included: refueling water storage tank level and boron concentration; accumulator pressure, level, and boron concentration; spray additive tank volume and sodium hydroxide concentration; boric acid storage tank level, boric acid concentration, and temperature; condensate storage tank level; nuclear instrumentation; diesel generator start controls; control rod position indication and insertion; reactor coolant system operating parameters, including pressure, temperature, power, offset, total flow, and boron concentration; temperature indications for boric acid heat tracing; and diesel fuel oil levels.



- Plant housekeeping conditions were reviewed to observe general cleanliness and to detect the presence of hazardous conditions.
 - Systems and equipment in all areas toured were observed for the existence of fluid leaks and abnormal vibrations.
 - Hydraulic snubbers and pipe hangers were observed for proper conditions.
 - The control board was observed for annunciators that should not be lighted during the existing plant conditions. Overall plant status was discussed with a control operator.
 - Control room manning was observed on several occasions during the inspection.
 - The following valves were observed for proper positioning: 841, 865, 888A, 888B, 858A, 881B, 873A, 881A, 382, 827A, 827B, 715, 717, 712B, 714, 4791, 4791A, 4795 and 4795A.
 - The installation of shielding adjacent to the fuel transfer tube inside containment was observed and found to be in accordance with the Licensee's response to IEB 78-08, dated August 11, 1978.
 - The inspector observed the drawing of a primary coolant sample and witnessed the performance of several chemical analyses, to verify approved procedures were in use and that personnel performing the analyses were knowledgeable of procedures and equipment used.
- (2) Acceptance criteria for the above items included inspector judgement and requirements of 10 CFR 50.54(K), Regulatory Guide 1.114, applicable Technical Specifications and the following procedures:
- A-1, "Radiation Control Manual," Revision 9.



- A-5, "Safety Committee, Revision 3.
- A-54.2, "Ginna Station Staff Responsibilities for Fire Prevention," Revision 1.
- OSO C-77-8, "Cleanup Stations," dated January 18, 1978.
- A-52.2, "Control of Locked Valve Operation," Revision 16.
- A-36, "Station Holding Rules," Revision 8.
- A-48, "Test Tag Control Program," Revision 4.
- A-54, "Ginna Station Administrative and Engineering Staff Responsibilities," Revision 6.
- A-54.4, "Duty Engineer Responsibilities," Revision 6.
- O-6, "Operation and Process Monitoring," Revision 15.
- A-52.1, "Shift Organization, Relief, and Turnover," Revision 3.

(3) Except as noted below, the inspector had no further comments in this area.

(a) General housekeeping conditions in the plant were found to be acceptable with the exception of the minor discrepancies noted below:

- (1) several lights were either burned out or missing in the containment basement;
- (2) tools and other loose items were found in various work areas inside containment. Additionally, it was noted that large wooden boxes used for storage of RV head O-ring seals were stored on the containment operating level and were not treated with fire retardant chemicals;



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- (3) evidence of leakage was found on valves 892A and 873A;
- (4) the spent fuel pool water needed cleanup;
- (5) oil was noted on the south side of the spent fuel pool floor; and,
- (6) abnormal vibration was noted on piping identified as part of the charging system (but not part of the RCS injection flow path).

These items were identified to the licensee and discussed at the exit interview. The licensee was familiar with some of the items and Work Orders already had been submitted; the licensee stated that the other items would be followed by additional Work Orders. The inspector had no further comments on this area.

- (b) During the tour of the auxiliary building, the inspectors noted that valve 881A (NaOH drain valve) was not locked in accordance with Ginna Station Administrative procedure A-52.2 but the valve was in the correct position (closed). This finding appears to be an isolated case of a discrepancy in the control of locked valves. However, the inspector discussed the matter with the licensee at the exit interview and, in particular, he discussed the adequacy of the chain/lock application for the specific type of valve used for V881A. The licensee stated that this area would be reviewed to assure compliance with A-52.2. This item is unresolved pending further review of locked valve control by NRC:RI during subsequent inspections (50-244/78-21-02).

4. Splice Insulation

The inspector reviewed the newly installed insulation on penetration splices for pressurizer channels LT-426, PT-429, PT-449, PT-430, LT-427, PT-431 and LT-428. The splices for these circuits were reworked after discrepancies were noted in the original installation of environmentally qualified heat shrink sleeves



(reference: NRC Region I Inspection Report 50-22/78-20). All splices reviewed during this inspection were found to be in conformance with the applicable requirements. The inspector also reviewed the plant system circuits which occupied a peripheral pin location in the penetration and which were used in place of the original pins for the pressurizer circuits. The affected channels were: PT-174, 'B' RCP #1 Seal D/P and FT-178, 'B' RCP Leakage High Range for penetration AE-10; NI junction box RTDs for penetration CE-5; FT-175, 'A' RCP low Range leakage and NIs junction box RTDs for penetration CE-6. Circuits were not relocated on penetration AE-11. No inadequacies were identified. The inspector had no further comments on the installation of splice insulation and unresolved item 244/78-20-01 is considered resolved.

The inspector stated at the exit interview that the following items in the area of environmental qualification of safety related circuits are still open and subject to NRC review: submittal of the final evaluation report; completion and review of the qualification tests; completion of the IEC 78-08 review; and review of Rome Cable qualification documentation. The licensee acknowledged the inspector's comments.

5. Personnel Changes

The inspector reviewed personnel records for staff changes made in the positions of Plant Superintendent, Assistant Plant Superintendent, Maintenance Engineer, Technical Engineer, Quality Control Engineer and Nuclear Engineer, as documented in the licensee's letter to the NRC dated August 2, 1978. Except as noted below, no problems were identified in meeting the requirements of ANSI N18.1.

The inspector noted that the individual designated for the Nuclear Engineer position lacks the required two years experience in Nuclear Engineering. The licensee acknowledged this information and stated that the August 2, 1978 letter was intended to state that the Technical Engineer (who was the former Nuclear Engineer and meets the ANSI N18.1 requirements) would fulfill the responsibilities of the Nuclear Engineer until the present individual obtains the required experience. The inspector had no further questions on this item in light of the above explanation but stated that this matter would be unresolved pending submittal of a change to the Technical Specifications by the licensee (244/78-21-03).



6. NRC Region I Review of Event Reports (LERs)

The inspector reviewed LER's received in the NRC:I office to verify that details of the event were clearly reported including the accuracy of the description of cause and adequacy of corrective action, and the inspector determined whether further information was required from the licensee, whether generic implications were involved, and whether the event warranted on site followup. The following LER's were reviewed:

- *-- LER 78-06, Main Steam Line Snubbers MS146T/B
- *-- LER 78-08, Violation of Auxiliary Building Integrity

No items of noncompliance were identified.

7. Onsite Followup of Licensee Events

For those LER's selected for on site followup, (denoted by an * in paragraph 6), the inspector verified that reporting requirements of Technical Specification had been met, that appropriate corrective action had been taken, that the event was reviewed by the licensee as required by administrative procedures, and that continued operation of the facility was conducted in accordance with Technical Specification limits.

References:

- CARs 1198; 1192
- EWR 2190
- Meeting minutes for PORC 55-78, 64-78
- Procedure M-40.1, Hydraulic Snubber Removal and Installation Procedure, Rev. 4, completed July 7, 1978 and July 10, 1978
- Task Assignment SMS-78-09
- RF-52, Inspection Procedure for Exxon Nuclear Fuel Assemblies at R. E. Ginna, Rev. 1, August 30, 1978
- RF-8, Fuel Assembly and Core Components Movement Prerequisites and Precautions, Rev. 8, April 1, 1978



- G S-34, Vital Access Control, Rev. 4, September 11, 1978
- Work Order and Trouble Reports TC 78-2043, TC 78-2044
- A-17, PORC Operating Procedure, Rev. 21
- A-25, Reporting Unusual Plant Conditions, Rev. 7
- A-25.1, Ginna Station Event Report, Rev. 11

No items of noncompliance were identified.

8. Followup on Bulletins and Circulars

- a. Licensee followup actions regarding IE Bulletins and Circulars were reviewed. The inspector reviewed facility records, interviewed licensee personnel and observed facility equipment/components to verify that:
 - licensee management forwarded copies of the bulletins/circulars to appropriate onsite personnel;
 - information discussed in the licensee's bulletin responses was accurate;
 - corrective action was taken as described in the reply; and,
 - the information was reviewed by the licensee in accordance with administrative procedures.
- b. The following bulletins and circulars were reviewed:
 - IEC 78-02, Proper Lubricating Oil for Terry Turbines
 - IEC 78-04, Installation Error that could Prevent Closing of Fire Doors
 - IEC 78-05, Inadvertant SI during Cooldown
 - IEC 78-06, Potential Common Mode Cooling of ECCS Equipment Rooms
 - IEC 78-07, Damaged Components on a Bergen-Patterson Series 25000 Hydraulic Test Stand



- IEC 78-09, Arcing of GE NEMA Size 2 Contactors
- IEC 78-13, Inoperable Service Water Pumps
- IEC 78-15, Tilting Check Valves Fail to Close with Gravity
- IEC 78-16, Limitorque Valve Actuators
- IEB 78-06, Defective Cutler Hammer Type M Relays
- IEB 78-10, Bergen Patterson Hydraulic Shock Suppressor Accumulator Spring Coils

No items of noncompliance were identified.

9. Review of Periodic and Special Reports

- a. Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.2 were reviewed by the inspector. This review included the following considerations:
 - the report includes information required to be reported by NRC requirements;
 - test results and/or reported information are consistent with design predictions and performance specifications and the information reported is supported by facility records;
 - planned corrective action is adequate for resolution of identified problems; and,
 - determination whether any information in the report should be classified as an abnormal occurrence.
- b. The following materials were used to conduct this review:
 - licensee letters to NRR dated August 2, 1978
 - Reload Safety Evaluation Report, R. E. Ginna Nuclear Plant, Unit 1, Cycle 7, February, 1977
 - PT 34.0, Startup Test Program, Rev. 1, completed June 5, 1978



- PT 34.1, Initial Criticality and All-Rods-Out Boron Concentration, Rev. 0, completed May 2, 1978
 - PT 34.2, Moderator Temperature Coefficient, Rev. 0, completed May 2, 1978
 - PT 34.3, RCC Bank Worth Measurement, Rev. 0, completed May 2, 1978
 - PT 34.4, RCC Bank D and C Boron Concentration, Rev. 0, completed May 2, 1978
 - PT 34.6, At Power Physics Testing, Rev. 0, completed May 31, 1978
- c. Within the scope of the above, the following reports were reviewed by the inspector:
- Monthly Operating Reports - June through September, 1978
 - Annual Operating Report - 1977
 - R. E. Ginna Nuclear Power Plant, Unit No. 1, Results of Physics Testing, Cycle VII, 1978

No items of noncompliance were identified.

10. Unresolved Items

Unresolved items are those items for which more information is required to determine whether the items are acceptable or items of noncompliance. Unresolved items are contained in paragraphs 3 and 5 of this report.

11. Exit Interview

A management meeting was held with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on October 23, 1978. The purpose, scope and findings of the inspection were discussed as they appear in the details of this report.

