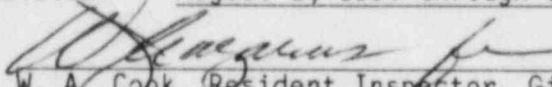
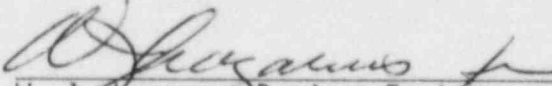
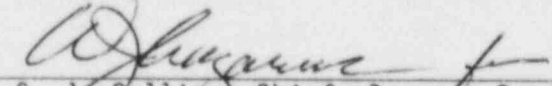


U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/84-19
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: August 1, 1984 through September 15, 1984
Inspectors:  10/12/84
W. A. Cook, Resident Inspector, Ginna date
 10/12/84
W. J. Lazarus, Project Engineer date
Reactor Projects Section No. 2C
Approved by:  10/12/84
S. J. Collins, Chief, Reactor Project date
Section No. 2C, DPRP

Inspection Summary: Inspection on August 1, 1984 through September 15, 1984
(Report No. 50-244/84-19)

Areas Inspected: Routine, onsite, regular, and backshift inspection by the resident inspector (194 hours), and one Region-based inspector (15 hours).
Areas inspected included: plant activities during routine operations; surveillance testing; review of TMI Action Plan items; followup on IE Circulars; plant maintenance; review of Measuring/Test Equipment controls; Licensee Event Report review; and inspection of accessible portions of the facility during plant tours.

Results: Of the eleven areas inspected, no violations were identified.

DETAILS

1. Persons Contacted

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

- L. Boutwell, Maintenance Supervisor
- C. Edgar, Instrumentation and Control Supervisor
- D. Gent, Results and Test Supervisor
- G. Larizza, Operations Manager
- T. Meyer, Technical Manager
- K. Nassauer, Quality Control Supervisor
- C. Peck, Nuclear Assurance Manager
- T. Rackiewicz, Instrumentation and Control Foreman
- L. Smith, Shift Supervisor
- B. Snow, Plant Superintendent
- S. Spector, Assistant Plant Superintendent
- G. Wahl, Maintenance Foreman
- J. Widay, Reactor Engineer

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

2. Review of Plant Operations

- a. Throughout the reporting period, the inspector reviewed plant operations. Activities in progress included routine full power operations, with the exception of the events discussed below.
 - On August 17, while performing Periodic Test (PT)-9.1, "Under-voltage Protection - 480 Voltage Safeguards Busses", the 1A Emergency Diesel Generator started and ran unloaded as a result of an intermittent contact on one of the Bus 18 test switches. The intermittent contact was apparently caused by a small amount of oxidation on the switch. Subsequent exercising of the test switch apparently wiped the contact clean and the failure could not be repeated. The licensee is working with the vendor to evaluate methods to prevent recurrence. The inspector will review the licensee's actions in this regard in a subsequent inspection (84-19-02).
 - On August 27, while operating at a reduced reactor power level of approximately 48% to repair a steam leak on the suction relief valve of the 1B Main Feedwater Pump, an automatic turbine runback occurred. The turbine runback was caused by a dropped rod signal which was generated as a result of a blown control power fuse on power range Channel No. 44. Operators immediately recognized the condition and leveled reactor power out at approximately 26 percent. No apparent cause could be found for the blown fuse. The control power fuse was replaced and normal operations resumed.

- On August 31, while disconnecting fire detection systems S-15, "Intermediate Building Basement - North Cable Tray Area", and Z-22, "Intermediate Building Basement - Motor Driven Auxiliary Feedwater Pump Area", the licensee identified that the "ALARM OFF" button on the Detection System Control Panel in the Control Room was in the "OFF" position and had been "OFF" for the previous two shifts, approximately 16 hours. This condition resulted in the defeat of the following functions: the Panel Alarm Bell, automatic actuation of the Relay Room Halon Fire Suppression System and Remote-Manual actuation capability of the Halon System from the control room. It was determined that upon restoration of the S-15 and Z-22 detection systems on the previous day, the common "ALARM OFF" button on the Control Room Detection System Control Panel was not properly reset, disabling the above mentioned functions.

This condition resulted in a violation of Technical Specification 3.14.4, in that a continuous fire watch was not set during the time the automatic actuation function of the Relay Room Halon System was inoperable.

A Notice of Violation is not issued in response to this incident, in that: the licensee identified the Technical Specification violation; the violation is categorized as Severity Level V; the licensee promptly notified the NRC resident inspector and submitted a written report via the Licensee Event Report System, (LER 84-010, September 28, 1984); effective corrective actions from a previous fire protection system violation could not have reasonably been expected to prevent precipitation of this event as verified by the inspector.

The inspector reviewed the licensee's corrective actions and discussed the event with licensee management. The inspector had no further questions.

- On September 12, the licensee conducted the Annual Emergency Exercise. Details of the Exercise and NRC findings are discussed in Inspection Report No. 50-244/84-21.

b. During the course of the inspection, tours of the following plant areas were conducted:

- Control Room
- Auxiliary Building
- Intermediate Building (including control point)
- Service Building
- Battery Rooms
- Turbine Building
- Diesel Generator Rooms
- Screenhouse
- Yard Area and Perimeter

c. The following areas were observed during the tours:

1. Operating logs and records. Records were reviewed against Technical Specifications and administrative procedure requirements.
2. Monitoring instrumentation. Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.
3. 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.
4. Shift manning. Control Room and shift manning were observed for conformance with 10 CFR 50.54, Technical Specifications, and administrative procedures.
5. Radiation protection controls. Areas observed included control point operation, posting of radiation and high radiation areas, compliance with Radiation Work Permits (RWP) and Special Work Permits (SWP), personnel monitoring devices being properly worn, and personnel frisking practices.
6. Fire protection. Fire detection and fire-fighting equipment and controls were observed for conformance with Technical Specifications (TS) and administrative procedures requirements.
7. Security. Areas were observed for conformance with regulatory requirements and implementation of the site security plan, inclusive of administrative procedures for vehicle and personnel access, and verification of protected and vital area integrity.
8. 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.
9. 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 routine control board indication review and conduct of a partial systems lineup check of the Boric Acid Addition and Makeup System on August 21, Component Cooling Water/Service Water System on August 28, and Auxiliary Feedwater System on August 30.

10. 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.

3. Surveillance Testing

- a. The inspector witnessed the performance of surveillance testing of selected components to verify that the test procedure was properly approved and adequately detailed to assure performance of a satisfactory surveillance; test instrumentation required by the procedure was calibrated and in use; the test was performed by qualified personnel; the test results satisfied Technical Specifications and procedural acceptance criteria, or were properly dispositioned.

- b. The inspector witnessed the performance of portions of the following tests:

PT-2.3.1, "Post Accident Charcoal Filter Dampers", performed on August 7.

PT-17.3, "RMS Channel Response to Portable Radiation Source, Area Monitor R9, Process Monitor 10A and 10B, R11 thru R22, R31 and R32, performed on August 28.

CP-41, "Calibration and/or Maintenance of Power Range N-41", performed on August 29.

PT-2.7, "Service Water System", performed on September 6.

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

The inspector reviewed the licensee's actions associated with the following TMI Action Plan Items (NUREG-0737), to verify that licensee commitments were met.

- a. Auxiliary Feedwater System Evaluation (II.E.1.1.2) Long Term System Modification Requirements

This action plan item required the licensee to perform an evaluation of the Auxiliary Feedwater system including a reliability analysis and flowrate design bases and criteria. Reports of this evaluation were submitted to the NRC Office of Nuclear Reactor Regulation (NRR) for review in documents dated: November 28, 1979, May 22, 1980, May 28, 1980, June 16, 1981, January 1, 1982 and January 8, 1982. The Staff review of these submittals is documented in Safety Evaluation Reports dated January 29, 1982 and June 16, 1982. Based on this review no hardware modifications were necessary to upgrade the Auxiliary Feedwater System to meet the requirements of this action item.

Modifications to upgrade auto-initiation and flow rate indication were covered under Item II.E.1.2. A Technical Specification amendment was required by this item which specified that the minimum Condensate Storage Tank level should be established at 22,500 gallons. The inspector verified this amendment had been incorporated into the current Technical Specifications. This item is closed.

b. Anticipatory Trip Modifications (II.K.3.10)

Action plan item II.K.3.10 required licensees to perform a re-evaluation of a small break LOCA (stuck open PORV) for any proposed new anticipatory reactor trips. As Ginna proposed no modifications to the setpoint for reactor trip on turbine trip, no evaluation was necessary. This item was evaluated by NRR in a letter dated August 25, 1981, and found acceptable. This item is closed.

c. Anticipatory (Reactor) Trip on Turbine Trip (II.K.3.12)

This action plan item required those licensees who did not have a reactor trip on turbine trip, to propose a design and evaluation for such a trip. In a letter from NRR dated August 25, 1981, the licensee's existing reactor trip on turbine trip was found acceptable. This item is closed.

d. Effect of Loss of AC Power on Pump Seals (II.K.3.25)

This action plan item required licensees to verify that reactor coolant pump (RCP) seals be designed to withstand a complete loss of AC power for a period of two hours. In a letter dated January 28, 1982, the licensee described two independent methods of cooling the RCP seals: (1) the chemical and volume control system and (2) the component cooling system, with the component cooling system automatically powered from the emergency diesel generators following loss of AC power. NRR determined this to adequately demonstrate the integrity of the RCP seals (NRR letter dated July 2, 1982). The inspector reviewed drawings 33013-422, 33013-435, and FSAR section 8.2.3 to verify the licensee's description of cooling to the RCP seals. This item is closed.

e. Installation and Testing of Automatic Power-Operated Relief Valve (PORV) Isolation System (II.K.3.1)

Reference: Crutchfield-Maier Ltr, September 27, 1983

This action plan item, in conjunction with Item II.K. 3.2, required the licensee to conduct an evaluation to determine the need for an automatic PORV isolation system, and if so, implement the necessary modification and confirmatory testing program. Westinghouse Owners Group submitted a generic report to the NRC staff titled "Probabilistic Analysis and Operational Data in Response to NUREG-0737, Item II.K.3.2,

for Westinghouse NSSS Plants", Westinghouse Electric Corporation, February 1981, (WCAP-9804). The licensee adapted the conclusions reached in WCAP-9804 as documented in a response to the NRC dated July 1, 1981. It was determined that for Ginna Station, "The concept of an automatic PORV block valve closure system, which closes the PORV isolation valves when lower pressure is sensed subsequent to a PORV failing to close, cannot be warranted on the basis of providing additional protection against a PORV LOCA". Based on report WCAP-9804 and an independent evaluation conducted by an NRC contractor, NRR concluded that the requirements of NUREG-0737 Item II.K.3.2 are met by existing PORV, safety valve, and reactor high-pressure trip setpoints and Item II.K.3.1 is not required. This item is closed.

f. Shift Manning-Overtime Limitations (I.A.1.3.1)

This action plan item required the licensee to implement administrative procedures to minimize the use of overtime by plant staff who perform safety-related functions. This NUREG 0737 item superseded IE Circular No. 80-02 and a letter from D. G. Eisenhower dated July 31, 1980 which provided additional guidance in the development of overtime policies. Subsequently, Generic Letter No. 82-16 was issued which required plant overtime policies to be incorporated in licensee Technical Specifications.

The inspector reviewed Administrative Procedures A-52.9, "Overtime Work Policy" and A-52.10, "Overtime Work Policy for Health Physicists, I&C Technicians and Maintenance Personnel", to verify that they are in agreement with the July 31, 1984 Amendment No. 62 to Technical Specification 6.2.2.g, governing station overtime policy. The inspector also conducted a review of the station shift work schedules and Weekly Timesheets to verify proper implementation of station procedures. No discrepancies were noted. This item is closed.

g. Auxiliary Feedwater System Initiation and Flow (II.E.1.2)

This action plan item required the licensee to upgrade the Auxiliary Feedwater Systems (AFWS) where necessary to ensure safety grade automatic initiation and flow indication. This item was subsequently reviewed in Inspection Reports 50-244/80-14 and 81-21. NRR completed the final evaluation of item II.E.1.2 via contract with Franklin Research Center. In a letter dated August 18, 1982, the NRC Staff found the Ginna AFWS's to be acceptable. This item is closed.

5. Followup on IE Circulars

- a. Licensee followup actions regarding IE 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 circulars to appropriate onsite personnel for review and information;
- corrective action recommendations were reviewed and implemented if applicable.

b. The following circulars were reviewed:

IE Circular 80-03, "Protection From Toxic Gas Hazards".

The licensee's review and subsequent corrective action related to IE Circular 80-03 have been captured in the response to NUREG 0737, "Clarification of TMI Action Plan Requirements" item III.D.3.4, "Control-Room Habitability Requirements". Completion of related modifications is scheduled for September 30, 1984. The inspector will conduct a review of the completed modifications in a subsequent inspection report.

IE Circular 80-09, "Problems With Plant Internal Communications Systems".

The inspector reviewed Ginna Station Preventative Action Report No. 51-80, the internal response to IE Circular 80-09. The inspector also reviewed the safeguards electrical distribution system and discussed with the licensee the availability of communications during a loss of both offsite and onsite power. The inspector determined that both internal and external communications, inclusive of commercial telephones, NRC red phones, and the station public address system (GAI-tronics) would still be available due to emergency battery backup power supplies. Results of a test to determine the effect of portable two-way radios on plant instrumentation was discussed with the inspector. The test concluded that as long as the portable radios were not used inside selected cabinets, no electronic instrumentation interference resulted. The inspector had no further questions.

IE Circular 80-10, "Failure to Maintain Environmental Qualifications of Equipment".

The inspector reviewed the licensee's internal response to IE Circular 80-10 and determined that adequate implementation of the recommended licensee actions was conducted. The inspector reviewed administrative procedure A-502, "Plant Procedure Content and Format Requirements" and a representative sample of maintenance procedures to determine that adequate controls are established to ensure environmentally qualified equipment is properly identified and maintained, as such, after the completion of maintenance. The inspector also reviewed the training memo written to alert station maintenance personnel of the proper precautions required when working on environmentally qualified equipment. The inspector had no further questions.

IE Circular 80-17, "Fuel Pin Damage Due to Water Jet From Baffle Plate Corner".

The inspector reviewed Ginna Station Preventative Action Report No. 81-80 and determined that the licensee had addressed the concerns of IE Circular 80-17 prior to its issuance. After the fuel pin failure at Point Beach in 1975, the licensee planned and conducted an inspection of the baffle plate during the 1979 refueling outage, as part of the scheduled internals inspection. With the exception of one joint, (A8) all gaps found to be between .003 and .035 inches were peened to less than .003 inches. Joint A8 could not be reduced after repeated peening and it was determined to leave the joint as is, due to its extreme hardness. The inspector had no further questions.

IE Circular 80-22, "Confirmation of Employee Qualifications".

The inspector reviewed the initial December 1980 response to Circular 80-22 and determined that 1980 employment policy specified that the verification of all applicants for positions at Ginna Station include: a) academic background (review of college transcripts), b) review of work experience (verifications of previous employment and/or military background), and c) review of conviction records if on file with local police department.

The inspector reviewed the current employment screening process with the licensee and determined that it involves a six step process. The six steps are: 1) initial screening interview, transcript and work experience review, 2) personal interview, 3) reference check, 4) police record check, 5) psychological examination, and 6) physical examination.

The inspector had no further questions.

IE Circular 81-08, "Foundation Materials"

The inspector reviewed the Systematic Evaluation Program report submitted for safety topic II-4.F, "Settlement of Foundations and Buried Equipment", February 19, 1982. The report concluded that this topic is not a safety concern at Ginna Station. The safety-related structures, including containment, auxiliary and intermediate buildings, and the control and emergency diesel generator buildings, are either founded on bedrock or lean concrete placed over the bedrock.

IE Circular 81-09, "Containment Effluent Water That Bypasses Radioactivity Monitor".

The inspector reviewed the licensee's response to IE Circular 81-09 and verified by review of station drawings that no unmonitored containment effluent water paths exist. The recommended actions of IE Circular 81-09 are not applicable to Ginna Station. The inspector had no further questions.

6. Plant Maintenance

- 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; required QA/QC involvement; proper use of safety tags; proper equipment alignment and use of jumpers; personnel qualifications; radiological controls for workers protection; and to ascertain whether reporting requirements were met.
- b. The inspector witnessed the following maintenance activity:
 - Repacking 'A' Charging Pump on September 5, in accordance with Maintenance Procedure (M)-11.4.6, "Charging Pump Stuffing Box Maintenance", Revision 6, February 23, 1984.

While disassembling the pump, one of the stuffing boxes was nearly dropped by the maintenance men involved. A new lifting device was being utilized and the awkward top-heaviness of the stuffing box assembly was not properly accounted for. The inspector observed that necessary precautions were taken on the subsequent stuffing box removal.

7. Review of Measuring and Test Equipment Control

- a. References:
 - (1) Ginna Station Quality Assurance Manual
 - (2) Administrative Procedure (A)-1201, "Calibration and Control of Test Equipment"
 - (3) A-1203, "Calibration and Control of Mechanical Measuring Equipment and Torque Wrenches"
- b. The inspector reviewed the methods of control of measuring and test equipment of the Results and Test Group, Quality Control Group, Maintenance Shop and the Instrumentation and Control (I&C) Group. Control methods were reviewed to verify adherence to industry standards, Ginna Quality Assurance Manual and governing station administrative procedures.
- c. The inspector discussed and reviewed test and measuring equipment calibration and control practices with representatives of each of the above mentioned groups. The inspector determined that each group has established its own unique method of administrative control and documentation. In addition, the inspector determined that, with the exception of the I&C group, measuring and test equipment "Use Classification Lists", as defined in references (2) and (3) are not being

submitted to Central Records for final disposition. Further, there exists some confusion and misunderstanding among the different groups as to the classification of test equipment. The station procedures do not provide sufficient clarification of the equipment category definitions to accurately encompass all test and measuring equipment. Equipment traceability in all groups was found to be exceptionally well documented and controlled.

- d. The inspector's findings were discussed with the licensee and it was learned that a program to revise the administrative procedures for control of test and measurement equipment is currently in progress. The thrust of the changes will be to more closely adhere to the industry standards to which the licensee is committed in reference (1), and to more clearly define equipment classifications and establish uniform documentation requirements.
- e. The inspector reviewed Quality Assurance Audits No. 83-04:SB and No. 84-05:SB conducted in the area of Measuring/Test Equipment Control and found no discrepancies.
- f. The inspector will review the revised program in a subsequent report. (84-19-01)

8. Licensee Event Reports (LER's)

The inspector reviewed the following LER's to verify that the details of the events were clearly reported, the description of the cause was accurate, and adequate corrective action was taken. The inspector also determined whether further information was required, and whether generic implications were involved. The inspector further verified that the reporting requirements of 10 CFR Part 50 and station administrative and operating procedures had been met; that the event was reviewed by the Plant Operations Review Committee and that continued operation of the facility was conducted within the Technical Specification limits.

84-01: Inoperable Safety Injection Accumulators - February 18, 1984. This event is documented in NRC Region I Inspection Report 50-244/84-01, paragraph 3.a.

84-02: Inoperable Residual Heat Removal (RHR) System - March 3, 1984. During the cooldown of the Reactor Coolant System (RCS) for the Annual Refueling and Maintenance Outage, periodic test PT-2.4.1, "Cold/Refueling Motor Operated Valve Surveillance (RHR System-700 valves)" was being conducted. Motor Operated Valve (MOV)-700 (RCS Loop A RHR suction stop valve) failed to stroke to the open position when actuated from the control room. Following manual unseating of the valve, MOV-700 was retested and stroking times were verified satisfactory. Subsequent inspection and testing of MOV-700 were inconclusive in determining the probable cause of failure, however, the operating stem was noted as being extremely dry. The stem was subsequently cleaned and lubricated, satisfactory operational testing was then performed and verified by the inspector.

84-05: Inoperable Residual Heat Removal (RHR) System - May 14, 1984. While conducting another cooldown to cold shutdown conditions, MOV-700 failed to **stroke** to the open position, (similar to LER 84-02 occurrence). Following manual unseating of the valve, maintenance personnel performed an inspection of the valve exterior. The inspection revealed that the packing gland flange had shifted out of the vertical position to a point where the flange contacted the valve operating stem. This could have caused a mechanical binding in the stem and torque-out of the valve operator. The packing gland flange was properly adjusted and subsequent testing on the valve motor operator were conducted with satisfactory results. On May 22, 1984 the valve was again stroked and verified to function properly.

84-06: Automatic Actuation of the Engineered Safety Feature (ESF) - May 22, 1984. This event is documented in NRC Region I Inspection Report Number 50-244/84-10, paragraph 3.a.

84-07: Automatic Actuation of the Reactor Protection System (RPS) - May 30, 1984. This event is documented in NRC Region I Inspection Report Number 50-244/84-10, paragraph 3.a.

84-08: Inoperable Fire Suppression System - July 25, 1984. This event is documented in NRC Region I Inspection Report Number 50-244/84-16, paragraph 3.c.6.

Except as noted above, the inspector had no further questions.

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 reports contained the information required to be reported by NRC requirements; test results and/or supporting information were consistent with design predictions and performance specifications; and the validity of the reported information. Within the scope of the above, the following reports were reviewed by the inspector:

-- Monthly Operating Reports for July and August of 1984.

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.