

U.S. NUCLEAR REGULATORY COMMISSION

50244-821016  
50244-821021  
50244-821026

Region I

Report No. 50-244/82-24

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: November 1, through December 5, 1982

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

12/15/82  
date signed

\_\_\_\_\_  
date signed

\_\_\_\_\_  
date signed

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

12-17-82  
date signed

Inspection Summary:

Inspection on November 1 through December 5, 1982 (Report No. 50-244/82-24)

Areas Inspected: Routine, onsite, regular and backshift, inspection by the resident inspector (110 hours). Areas inspected included: plant operations; surveillance testing; fire protection program implementation; Licensee Event Reports; followup of licensee actions on previous inspection findings; periodic and special reports and accessible portions of the facility during plant tours.

Results: Of the 7 areas inspected, two violations were identified in two areas (Failure to maintain a continuous fire watch-Paragraph 4; Failure to perform surveillance testing within required frequency-Paragraph 7).

8301170501 821228  
PDR ADOCK 05000244  
G PDR

## 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) Violation (244/82-14-01): Failure to perform safeguard bus low voltage protection test within required frequency. The initial, routine surveillance test was performed satisfactorily in accordance with Periodic Test Procedure (PT)-9.1, Undervoltage Protection-480 Volt Safeguard Bus on July 17, 1982. As stated in licensee letter J. Maier (RG&E) to E. Brunner (NRC), dated September 15, 1982, the new surveillance test was added to the regular monthly schedule for the Results & Test Department. Review of recently completed tests; however, indicate that the monthly frequency has been exceeded. Further discussion is presented in paragraph 7. This item is administratively closed.

### 3. Review of Plant Operations

- a. Throughout the reporting period, the inspector reviewed plant operations. Activities in progress included routine, full power operation. A leakage investigation was performed in containment on November 3, after experiencing a significantly reduced time period between containment sump pump actuations. The containment sump water had been previously sampled and determined to be secondary-side water. The source of leakage was

observed to be from a drain line just above the 'B' Steam Generator tube sheet. The line was capped on November 22, while at 50% power for turbine stop valve testing, and the frequency of containment sump pump actuations returned to normal.

- b. During the course of the inspection, tours of the following areas were conducted:
- Control Room
  - Auxiliary Building
  - Intermediate Building (including control point)
  - Service Building
  - Turbine Building
  - Diesel Generator Rooms
  - Battery Rooms
  - Screenhouse
  - Yard Area and Perimeter
- c. The following areas were observed during the tours:
- a. Operating logs and records. Records were reviewed against Technical Specification and administrative procedure requirements.
  - b. Monitoring instrumentation. Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.
  - c. 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.
  - d. Shift manning. Control room and shift manning were observed for conformance with 10 CFR 50.54 (K), Technical Specifications, and administrative procedures.
  - e. 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.
  - f. 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 daily control board indication review and conduct of partial system lineups of the Auxiliary Feedwater System on November 3; the Safety Injection and Containment Spray System on November 18; and the 'A' and 'B' Diesel Generators on November 19.

- g. 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. Problems experienced with tagging equipment during the Post Accident Sampling System installation are discussed in paragraph 5.
- h. Fire protection. Fire detection and fire fighting equipment and controls were observed for conformance with Technical Specifications and administrative procedures. Implementation problems experienced with the fire protection program are discussed in paragraph 4.
- i. Security. Areas observed for conformance with regulatory requirements, and implementation of the site security plan and administrative procedures included vehicle and personnel access, and both protected and vital area integrity.
- j. 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.

#### 4. Fire Protection Program Implementation Problems

- a. A number of problems were experienced in the implementation of the fire protection program during the reporting period:
  - At 10:35 A.M., November 12, functional testing of the Intermediate Building Cable Tray Spray System (S15) was in progress, following system modification which replaced the open head sprinklers with closed heads requiring heat to open. The automatic suppression system to S15 had been removed from service during the modification and a continuous fire watch was posted in the area. A Results and Test technician attempting to actuate the manual pull station for S15 as part of the functional test, mistakenly actuated the manual pull station for the Cable Tunnel Spray System (S05), resulting in Cable Tunnel suppression. No plant anomalies were experienced as a result of the spray system initiation. The functional test was being performed in accordance with Periodic Test Procedure (PT)-13.4.25, which gave a letter/number designation and a description of the physical location of the pull station to be actuated. Although the pull stations for spray systems S05 and S15 are physically located in the same general area, the S05 pull station was clearly labeled "Cable Tunnel". Results and Test supervision of new technicians has been good in the past; however, the cause of the personnel error was insufficient supervision over a relatively new, inexperienced technician.
  - Following the inadvertent actuation of the Cable Tunnel Spray System (S05) the detection system was removed from service until adequately

dried out and tested to prevent possible malfunctions, including system grounds. Additionally, manual valve V5208 was closed and administratively held to prevent automatic suppression in the Cable Tunnel. In this condition Technical Specification 3.14.3.1 requires a continually posted fire watch. However, as a result of inadequate communication between the Operations Department and the Fire Protection staff only hourly tours of the Cable Tunnel were provided. This violation was discovered by the Fire Protection and Safety Coordinator at 8:00 A.M., November 15, and a continuous fire watch was immediately posted.

- The continuous fire watch in the S15 area was removed at 6:00 P.M., November 15, following completion of the closed head modification and functional testing. At 9:15 A.M., November 16, the continuous fire watch was restored after it was discovered by the Operations Department that the suppression supply valve, V9219, was closed and administratively held, preventing automatic suppression in the Intermediate Building Cable trays. V9219 had not been reopened following completion of system modification to place S15 suppression back in service. The deficiency appears to have been due to: 1) confusion regarding system status during turnover to the plant between the Project Section performing the modification and the fire protection staff; and 2) failure of the Operations Department to perform a system walkdown prior to declaring S15 operable and removing the fire watch. V9219 was reopened at 12:01 P.M., November 16, and the fire watch was removed.
- Later, at 7:00 A.M., November 17, an auxiliary operator found the solenoid valve switch to the S15 suppression system disconnected, preventing automatic suppression from occurring. A continuous fire watch was immediately posted. Similar to V9219, the switch had not been reconnected following completion of system modification and placing S15 suppression back in service.

Failure to maintain a continuous fire watch with the S15 automatic suppression system inoperable, and to take adequate corrective action to assure system operability after discovering on November 16 that V9219 had not been properly repositioned is contrary to Technical Specification 3.14.3.1 and is considered a violation (82-24-01).

Based on the above occurrences, the inspector met with the Plant Superintendent and his staff to discuss the need for prompt corrective action. The licensee agreed to take steps to improve communication between functional groups, modify/develop procedures to provide for mechanical and electrical fire suppression system walkdowns and revise modification procedures for the upcoming Auxiliary Building closed head suppression system upgrade to improve turnover from Projects to plant personnel. The inspector will follow these licensee actions.

## 5. Equipment Tag-Outs

At 9:45 A.M. on November 29, a Project Section representative requested the control room shift to tag closed normally-open manual valves V1594 & V1596 as part of the ongoing Post Accident Sampling System (PASS) installation. The operating shift issued the hold tag requests without first reviewing valve indexes, piping diagrams, or questioning the Project representative to determine the function of V1594 & V1596 and the effect of closing the above valves. At about 1:00 A.M. on November 30, a subsequent operating shift submitted a trouble card on the containment gas process monitor (R12), due to a below normal count per minute reading. During dayshift on November 30, the Instrumentation & Control Department, responding to the trouble card, recommended that the Operations Department walkdown the system to assure R12 was not isolated after troubleshooting did not indicate a detector malfunction. Upon system walkdown, it was determined that when V1594 & V1596 were closed, the containment air sample suction to the iodine process monitor (R10A), particulate process monitor (R11), and R12 had been isolated. Technical Specification 3.1.5.3 allows operation for up to forty-eight hours with the above monitors out of service. Approximately thirty hours had elapsed prior to the Operations Department being aware of entry into the action statement. Completion of the PASS tie-in, including return of the monitors to operable status, was accomplished within the allotted forty-eight hours. Licensee investigation into the occurrence determined that in addition to the problems noted within the Operations Department, the Project Section had been aware that closing V1594 & V1596 would cause entry into the action statement and did not ensure the control room shift was aware that closing these valves would isolate the suction to the containment air monitors. Further, the modification procedure in use by the Project Section, SM-2606.4, required that the containment air sample pumps for R10A and R11/12 be secured and tagged out of service when the suction valves to the pumps were closed. This procedural step was not accomplished, as the Project representative did not request the pumps to be secured and tagged.

The inspector discussed this occurrence with licensee management and stressed the need for improved verbal and written (procedural) communication between the Project Section and other functional groups. The licensee acknowledged the inspector's comment and stated that a supervisory level meeting has been scheduled for December 8 to evaluate the problems which have been experienced during recent plant modifications and to implement necessary corrective action.

## 6. Surveillance Testing

- 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 Procedure (PT)-3, Containment Spray Pumps and NaOH Additive System, Revision 28, July 7, 1982, performed November 8 and 18, 1982 (B Train only).
- c. A portion of the surveillance test requires prompt closure verification of the 'B' Containment Spray Pump Discharge Check Valve, V862B, as included in the licensee's Inservice Testing Program. Several Licensee Event Reports have been submitted when the procedural acceptance criteria has not been satisfied, and the 'B' train taken out of service to allow inspection of the check valve internals. No mechanical problems with the valve have been identified by the licensee or vendor representative. The test criteria defined prompt closure as trapping at least 50% of the discharge pressure after stopping the pump. Due to the small volume (about .5 ft<sup>3</sup>) of water trapped between V862B and the closed downstream manual valve, V868B, only about 100 cubic centimeters would have to leak by the check valve seat to exceed the administratively set acceptance criteria. It is noted that V862B is also a containment isolation valve. The licensee has revised the acceptance criteria for assuring the valve seats, by establishing that a differential pressure (D/P) exists across V862B after the spray pump is stopped. If no D/P is observed, an air test will be performed on the stagnant system. If after the air is injected downstream of V862B there still is no D/P observed, a leak rate test will be performed to determine containment isolation valve operability. Air tests performed on the above dates satisfied inservice testing and containment isolation valve operability requirements.
- d. The pump inboard bearing vibration readings measured on November 8 and 18, were noted to have increased from reference values of .3 mils vertical (v) and .4 horizontal (h) to 1.10v; 1.05h; and 1.40v; 1.21h, respectively. The increase in vibration level is believed to be due to recently installed seismic supports in the Containment Spray System. The measured values, in excess of 1.0 mil, fell within the Alert Range of ASME Boiler and Pressure Vessel Code Section XI. Entry into the Alert Range requires the frequency of testing to be doubled until cause of the deviation is determined and corrected. The inspector will follow the licensee's evaluation of the increased vibration reading.

No violations were identified.

## 7. Surveillance Testing Program Review

- a. The inspector reviewed data from completed surveillance tests on a sampling basis to verify that tests required by Technical Specifications were performed in accordance with approved procedures. The results were either satisfactorily achieved or were properly dispositioned.

b. The following surveillance tests were reviewed:

- Calibration Procedure (CP)-128, Calibration and/or Maintenance of Charging Line Flow Channel 128, Revision 4, October 15, 1979, performed March 1, 1982.
- Refueling Shutdown Surveillance Procedure (RSSP)-3, Verification of Emergency Start Logic for Auxiliary Feedwater Pumps, Revision 8, April 28, 1981, performed April 12, 1982.
- RSSP-11, Pressurizer Safety Valve Test, Revision 8, October 14, 1981, performed April 5, 1982.
- Periodic Test Procedure (PT)-1, Rod Control System, Revision 11, July 30, 1982, performed August 11 & 25 and September 6 & 20, 1982.
- CP-5.10, Process Instrumentation Reactor Protection Channel Trip Test (Channel 1), Revision 23, July 8, 1981, performed November 15, 1982.
- PT-9.1, Undervoltage Protection-480 Volt Safeguard Buses, Revisions 0 thru 3, performed July 17, August 16, September 20 & 29 (Bus 17 only) and October 28, 1982.

c. Although the results associated with the monthly 480 volt safeguard bus surveillance tests satisfied the acceptance criteria of procedure PT-9.1 and Technical Specifications, the inspector noted that the October 28 test exceeded the one month  $\pm$  25% window required between tests with the window based on the original test performed July 17. Failure to satisfy the surveillance testing frequency of the undervoltage protection for three of the four 480 volt safeguard buses is contrary to Technical Specification 4.1.1 and is considered a violation (82-24-02).

#### 8. Licensee Event Report (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 Technical Specifications and station administrative and operating procedures had been met; 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.

82-23: Inoperable Component Cooling Water Pump-October 16, 1982. An auxiliary operator noticed leakage from the 1B CCW Pump discharge vent piping. The leakage source was a broken nipple attached to the pipe. The pump was removed from service and the failed pipe replaced. The apparent cause of the failure was attributed to a person stepping on the line.



82-24: Inoperable Rod Position Indicator-October 21, 1982. Shortly after achieving criticality rod position indicator K-7 failed low. Cause of the failure was determined to have been from the installation of an incorrect style operational amplifier during calibration/maintenance the previous day. The amplifier was replaced, and the indicator was tested and returned to service on October 21.

82-25: Inoperable Fire System-October 21, 1982. The Cable Tunnel spray/sprinkler system was removed from service in order to perform system modification on October 7, 1982. A continuous fire watch was posted in the area, as required.

82-26: Containment Spray Pump Discharge Check Valve (V862B) Excessive Leakage-October 26, 1982. (Repeat Event) Following the routine Containment Spray Pump surveillance test, containment isolation valve V862B failed to exhibit prompt closure. After three successive failures, the valve was disassembled with no mechanical problems noted. The alignment pin in the cover was removed and the cover rotated about 1/16" when reassembled. The valve exhibited prompt closure for three successive tests and was returned to operable status. The licensee's corrective action is discussed in paragraph 6.

No violations were identified.

#### 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; 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 October, 1982.

No violations were identified.

#### 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.