

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-244/87-25

Docket No. 50-244

Licensee No. DPR-18

Priority --

Category C

Licensee: Rochester Gas and Electric Corporation
49 East Avenue
Rochester, New York

Facility Name: R. E. Ginna Nuclear Power Plant

Inspection at: Ontario, New York

Inspection Conducted: October 4, 1987 through November 30, 1987

Inspectors: T. J. Polich, Senior Resident Inspector, Ginna

N. S. Perry, Resident Inspector, Ginna

Approved by:

C. J. Cowgill
C. J. Cowgill Chief, Reactor
Projects Section No. 1A, DRP

12/23/87
Date

Inspection Summary:

Inspection on October 4, 1987 through November 30, 1987 (Report No. 50-244/87-25).

Areas Inspected: Routine on-site regular and backshift inspection by two resident inspectors. Total inspector hours were 210, including 55 hours of backshift and weekend inspection. Areas inspected included: licensee action on previous findings; review of plant operations; operational safety verification; surveillance testing; plant maintenance; and review of periodic and special reports.

Results: In the eight areas inspected one violation was observed. The violation involved failure to follow procedures in the control of blocking devices on the Safety Injection pump recirculation line paragraph 4.b.



DETAILS

1. Persons Contacted

During this inspection period, the inspectors held discussions with and interviewed operators, technicians, engineers and supervisory level personnel.

J. C. Bodine, Nuclear Assurance Manager
D. L. Filkins, Chemistry & Health Physics Manager
*D. R. Gent, Supervisor Results and Tests
*J. L. Hotchkiss, Ginna Modifications Project Manager
R. W. Kober, Vice President, Electric and Steam Production
R. A. Marchionda, Training Manager
T. A. Marlow, Maintenance Manager
T. A. Meyer, Superintendent Ginna Support Services
*K. Nassauer, Quality Control Supervisor
*T. R. Schuler, Operations Manager
M. T. Shaw, Administrative Services Manager
B. A. Snow, Superintendent Nuclear Production
*S. M. Spector, Superintendent Ginna Production
J. A. Widay, Technical Manager
R. E. Wood, Supervisor Nuclear Security

*Denotes persons present at Exit Meeting on December 3, 1987.

2. Licensee Action on Previous Inspection Findings

- a. (Closed) Notice of Violation (87-18-02) Failure to control maintenance activities of safety-related equipment and failure to perform post-maintenance testing.

The licensee took corrective actions to prevent reoccurrence of this violation by conducting training sessions with the individuals who perform work on safety-related equipment. The reorganization of the licensee's Maintenance Department has added a Senior Reactor Operator (SRO) qualified individual responsible for reviewing maintenance work requests. Inspector observations of subsequent maintenance on safety-related equipment has been satisfactory. This violation is closed.

- b. (Closed) Notice of Violation (87-04-01) Failure to perform monthly surveillance on R-18 from 1976 to 1987.

The inspector has reviewed the licensee's revision of PT-17.2 and has observed the performance of the procedure this method appears appropriate until the proposed replacement of R-18 monitor in August of 1988. This violation is closed.



The response to this notice of violation stated that since May 25, 1979 an external source had been used quarterly to functionally test the response of the R-18 monitor. Inspectors review of this event identified that in 1976 the licensee documented that R-18 did not respond to the check source and the reason for no response was high background. Also the quarterly test was not performed in early 1976 and credit was taken for the annual calibration. The inspector expressed concern to licensee management about the thoroughness of the root cause analysis for this violation. The licensee acknowledged the inspectors concern. The inspector will closely review the root cause analysis of future licensee investigations.

3. Review of Plant Operations

Throughout the reporting period, the inspectors reviewed routine power operations. The plant operated at full power for the entire period. The licensee has operated at power since the refueling outage which ended March 9, 1987.

4. Operational Safety Verification

a. General

During the inspection period, the inspectors observed and examined activities to verify the operational safety of the licensee's facility. The observations and examinations of those activities were conducted on a daily, weekly or monthly basis.

On a daily basis, the inspectors observed control room activities to verify compliance with selected Limiting Condition for Operations (LCOs) as prescribed in the facility Technical Specifications (TS). Logs, instrumentation, recorder traces, and plant conditions. Trends were reviewed for compliance with regulatory requirements. Shift turnovers were observed on a sampling basis to verify that all pertinent information relating to plant status was relayed. During each week, the inspectors toured the accessible areas of the facility to observe the following:

- General plant and equipment conditions
- Fire hazards and fire fighting equipment
- Radiation protection controls
- Conduct of selected activities for compliance with licensee's administrative controls and approved procedures
- Interiors of electrical and control panels
- Implementation of selected portions of the licensee's physical security plan
- Plant housekeeping and cleanliness
- Essential safety feature equipment alignment and conditions



The inspectors talked with operators in the control room, and other personnel. The discussions centered on pertinent topics of general plant conditions, procedures, security, training, and other aspects of the involved work activities.

b. Failure to Follow Procedures

On October 13, 1987, an Auxiliary Operator (AO) found the blocking devices for Air Operated Valves (AOVs) 897 and 898 (common recirculation line for Safety Injection Pumps A, B and C) to be installed in what he believed to be the improper position. The AO contacted the shift supervisor and moved the blocking devices to a position he believed to correctly block open AOV 897 and 898. The licensee's Technical Manager verified that the new location of the blocking devices would prevent valve movement but, felt the as found condition might also prevent valve movement. The licensee notified the resident inspectors of their findings and initiated an investigation as to when the blocking devices were mispositioned. The licensee identified that the valves were stroked on February 11, 1987 as part of PT-2.6, "Cold/Refueling Shutdown Air Operated Valve Surveillance".

The licensee determined the blocking devices were installed prior to plant start-up on March 9, 1987 and had been verified monthly by procedure S-30.1, "Safety Injection System Valve and Breaker Position Verification".

On October 15, 1987, the licensee determined that the blocking devices were installed properly as found on October 13, 1987 by the AO and either position of installation would prevent valve movement in the event of loss of power or air to AOVs 897 and 898.

The inspectors conducting an independent investigation into this incident found the blocking devices were installed in response to NRC Bulletin 86-03, "Potential Failure of Multiple ECCS Pumps Due to Single Failure of Air Operated Valve in Minimum Flow Recirculation Line". Bypass of Safety Function and Jumper Control request 86-56 dated August 7, 1986 was still active with the required double verification on the installation of the blocking device.

Administrative Procedure (A)-1402, "Bypass of Safety Function or Jumper Control", requires two individuals knowledgeable in the task being performed to verify installation and removal of blocking devices or jumpers unless the jumper is controlled under a Plant Operation Review Committee (PORC) approved procedure. Contrary to this procedure the blocking devices were removed and installed on or about February 11, 1987 without administratively controlling the blocking devices. The blocking devices were verified by procedure S-30.1 on January 30, 1987 and were not reverified until March 8, 1987.



Additionally, the blocking devices were removed and installed in a different position on October 13, 1987 by persons who proved to be unfamiliar with the "Designed Position" of the blocking devices. Failure to follow procedure A-1402 is an apparent violation of T.S. 6.8.1. (87-25-01)

While this occurrence proved to have no safety significance it points out two concerns to the resident inspector staff:

- Lack of formal administrative control of blocking devices as evidenced by failure to follow procedure A-1402.
- Lack of adequate training of all shift and management personnel as to the correct installation of the particular blocking device as evidenced by taking two days to determine the as found condition of the blocking devices was correct.

The licensee returned the blocking devices to the initial as found position on October 16, 1987 following maintenance work request 87-5392 and Bypass of Safety Function and Jumper Control request 87-57. The two documents provided positive administrative control of the work, testing, and photographing the evolution for future reference and training.

c. Inservice Pump and Valve Testing Program

On October 13, 1987 the licensee submitted Revision 8 to the Ginna Station Quality Assurance Manual, Appendix C, which describes the Inservice Pump and Valve Testing Program for the January 1, 1981 through December 31, 1989 testing period to NRR. The inspector reviewed portions of this submittal as it pertained to AOVs 897 and 898 discussed in Section 4.b above. The review revealed a typographical error in that valve 898 was omitted from note 27 on page 37. This note was correct on the previous revision. The inspector brought this to the attention of the licensee's Technical Manager and the NRR Project Manager. The licensee's Superintendent had recently addressed his intolerance lack for of attention to detail of document reviews in memorandum to his staff. The licensee plans to review the document and make corrections to the submittal.

d. Hydrogen Monitor Surveillance Interval Exceeded

On November 10, 1987, the resident inspector was informed that the licensee had missed a quarterly surveillance on the 'A' Hydrogen Monitor Solenoid Operated Valves (SOV) 921 and 922. The surveillance was to be performed in early August 1987 along with the 'B' Hydrogen Monitor SOV surveillance. The 'B' Hydrogen Monitor SOV surveillance was performed. However, the licensee incorrectly assumed that the 'A' Hydrogen Monitor SOV surveillance had been performed during the previous week. The surveillance was missed due



to personnel error in tracking the status of the surveillance procedure (PT-2.5.5) which was performed about one week later than originally scheduled due to work being performed on the 'B' Hydrogen Monitor. The missed surveillance was discovered while logging the results of the same surveillance performed in early November 1987. Currently, surveillances are tracked manually; a computer tracking system is planned in the future.

The licensee took immediate action to review Technical Specifications for any violations, and concluded that none were violated as both the 'B' Hydrogen Monitor and the Post Accident Sample System were operable during the period from August through November. The licensee is currently reviewing corrective actions in the form of a rubber stamp to help track partially completed surveillance procedures. Additionally, a review was completed of other surveillance tests and it was concluded that no others were missed. The requirement for this surveillance to be performed on these valves is delineated in Appendix C of the Ginna Station QA Manual. A Notice of Violation is not issued for this event in that: it was identified by the licensee; it was of minor safety significance; it was properly reported; immediate corrective measures were appropriate and actions are being taken to prevent recurrence; and there have been no previous violations in this area for which licensee actions would have prevented its occurrence.

e. Containment Entry

The inspector accompanied several plant personnel during a containment entry on November 10, 1987, while the plant was at power. A quarterly surveillance test was performed requiring the containment entry. The general conditions in containment could not be properly assessed due to the lack of lighting; however, use of flashlights did aid the inspection process. The inspector observed good coordination between security, health physics, operations, and results and test personnel during the entry. In general, good ALARA practices were observed with personnel making good use of extra time by changing light bulbs or performing general cleanup.

f. Scaffolding Installed Over Safety Injection Pumps

During a tour of the Auxiliary Building on November 27, 1987 the inspector observed scaffolding installed over the 'B' and 'C' Safety Injection (SI) pumps. Temporary Structural Features Authorization Form 87-90 which authorized this installation had been PORC approved on November 20, 1987. The evaluation stated in part:

"Erection and use of scaffolding in the intended location will not create a hazard to the Safety Injection Pumps provided it is seismically anchored. This structure shall be installed in accordance with guidance and a sketch which has been approved by Structural Engineering, attached".-



The attached memorandum stated:

"Attached is a sketch of the cross bracing requirements which is intended to be used as a guide in the placement of the seismic scaffolding used in the conduit support modifications. Since the actual placement of the scaffolding has not been supplied to Engineering, the intent of this sketch is to provide Construction with direction on where to attach the scaffolding to the existing columns and stairs and to show where the cross bracing should be placed in both the N-S and E-W directions. Once erected, an evaluation by Engineering should be made to assure that the configuration is adequate."

The scaffolding installation observed by the inspector was not complete and did not match the structural engineering sketch. The inspector could not find evidence that an evaluation of the partially completed scaffolding had been made prior to securing work on November 25, 1987, for the four day holiday. The inspector asked the shift supervisor to contact plant and engineering management to resolve the question of scaffolding adequacy of the partially installed configuration. The licensee's Structural Engineering Manager arrived on site and performed an evaluation of the scaffolding finding the installation adequate. However, one diagonal brace was relocated away from a component cooling line.

On November 30, 1987 the licensee stated an interim inspection of the scaffolding was conducted on November 24, 1987 and found the installation to be adequate however, this inspection was not documented. The licensee stated there had been a miscommunication between structural engineering and projects as to the extent of the scaffolding required. The construction engineer only intended for the scaffold to be installed over the "B" and "C" SI pumps and the structural engineering sketch extended the installation over all three pumps. This difference was discussed when the November 24 inspection took place.

The need to provide documentation of adequacy for scaffolding installations over multiple trains of safeguards equipment was discussed with the Technical Manager and Modifications Project Manager. The licensee plans to consider these questions in any future scaffolding installations which affect multiple trains of safeguards equipment.

g. Intermediate Building Subbasement

The licensee has cleared the large deposits of silt and sludge from around the containment tendon greasing sleeve valves. The ground water inflow problem still exists however, the water appears to be draining better as evidenced by the lower water level on both sides of the footing. The latest tour of the subbasement took place on a rainy day and water inflow is still evident at the same places



described in Inspection Reports 87-08 and 87-16. Additionally, water was dripping from the entire ceiling area above the sheet piling on November 29, 1987 and appeared to be the largest contributor to water inflow.

h. Diesel Generator Air Start Motor Lubrication Follow-up

In response to Region I Temporary Instruction 87-06, the inspector identified that the licensee utilizes Ingersoll Rand air start motors on their ALCO Products diesel generators. The inspector furnished the licensee with a copy of General Motors Electro-Motive Division (EMD) publication which changed the Ingersoll Rand air start motor lubrication rate. The licensee had not received such instructions from their diesel manufacture ALCO. This temporary instruction is considered closed.

One apparent violation was identified.

5. Surveillance Testing

a. The inspectors 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; test instrumentation required by the procedure was calibrated and in use; the test was performed by qualified personnel; and the test results satisfied Technical Specifications and procedural acceptance criteria, or were properly resolved.

b. During this inspection period, the inspectors witnessed the performance of selected portions of the following tests:

Periodic Test (PT)-1, "Rod Control System", effective July 16, 1987.

PT-2.3.1, "Post Accident Charcoal Filter Dampers", effective April 28, 1987.

PT-2.5.5, "Air/Solenoid Operated Valves, Quarterly Surveillance Clean Intermediate Building", effective September 1, 1987.

PT-2.7, "Service Water System", effective September 11, 1987.

PT-2.8, "Component Cooling Water Pump System", effective July 24, 1987.

PT-17.3, "RMS Channel Response to Portable Radiation Source Area Monitor R9 Process 10A & 10B, R11 thru R22, R31, and R32", effective May 13, 1987.

No unacceptable conditions were identified.



6. Plant Maintenance

a. During the inspection period, the inspectors 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; qualifications; and reportability as required by Technical Specifications.

b. The inspectors witnessed selected portions of the following maintenance activities:

Maintenance Work Order and Trouble Report 87-5392 concerning the blocking device installation on AOVs 897 and 898.

Maintenance Procedure (M)-11.30.2, "Diesel Fire Pump Angle Drive Maintenance", effective April 28, 1986.

M-38.1, "Diesel Fire Pump Engine Maintenance and Inspection", effective November 18, 1986.

M-106, "Replacement Or Inspection Of D.C. Fuses", effective October 8, 1987. The inspectors observed various fuses being replaced during the inspection period.

No unacceptable conditions were identified.

7. Licensee Technical Services Meeting

On November 19, 1987, seven RG&E representatives, corporate and plant engineers and management, met with five NRC representatives, Division of Reactor Safety and Division of Reactor Projects (DRP) personnel, at Region I, King of Prussia. The licensee described their Technical Services Department and outlined present and future plans with regards to the Ginna Nuclear Power Plant. The NRC DRP Branch I Chief described future plans of the NRC. The meeting was general in nature and described the basic programmatic structure of the Technical Services Department. Positive and open communications between the two groups were established and reinforced. Additional meetings will be planned for next year.

8. Licensee Event Reports (LERs)

The inspector reviewed the following LERs to verify that the details of the event 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 continued operation of the facility was conducted within the Technical Specification limits.

LER 87-005: Inadvertent Containment Ventilation Isolation During Performance of Monthly Periodic Test of Containment Particulate Radiation Monitor Due to a Frayed Conductor.

On May 14, 1987, with the reactor at 100% power, a containment ventilation isolation occurred due to a spurious signal from containment particulate radiation monitor (R-11). All containment ventilation isolation valves that were open, closed as designed. The R-11 digital display was lost and a control board annunciator alarmed. The R-11 fuse was checked and although not blown was replaced. When the fuse was replaced the display returned and the test was completed satisfactorily.

Further investigation determined the cause to be a manufacturing defect (frayed conductor) internal to the R-11 drawer. The licensee subsequently inspected all other radiation monitor drawers and found one other frayed conductor on R-2 (Containment Area Radiation Monitor). The licensee notified the manufacturer of the radiation monitors (Victoreen) and performed a 10 CFR 21 evaluation on R-11. The evaluation determined the defect was not reportable under 10 CFR 21.

10. Review of Periodic and Special Reports

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.3 were reviewed by the inspectors. 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 reported information was valid. Within this scope, the following reports were reviewed by the inspectors:

-- Monthly Operating Reports for September and October 1987.

No unacceptable conditions were identified.

11. Exit Meeting

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

Based on the NRC Region I review of this report and discussion held with licensee representatives, it was determined that this report does not contain information subject to 10 CFR 2.790 restrictions.

