

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-244/16

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: May 31, 1987 through July 4, 1987

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

Approved by:

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

7/24/87  
Date

Inspection Summary:

Inspection on May 31, 1987 through July 4, 1987 (Report No. 50-244/87-16).

Areas Inspected: Routine, on-site, regular, and backshift inspection by the resident inspector (131 hours). Areas inspected included: licensee action on previous findings; review of plant operations; operational safety verification; surveillance testing; plant maintenance; Licensee Event Reports; and review of periodic and special reports.

Results: In the seven areas inspected, one violation was observed. The violation involved failure to follow procedures in the control of electrical drawings paragraph 4.b. An unresolved item pertaining to the safety significance of oversized fuses in the D.C. distribution system is also addressed in paragraph 4.b.

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## DETAILS

### 1. Persons Contacted

During this inspection period, the inspector 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
- \*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
- \*T. R. Schuler, Operations Manager
- M. T. Shaw, Administrative Services Manager
- \*B. A. Snow, Superintendent Nuclear Production
- S. M. Spector, Superintendent Ginna Production
- R. W. Vanderweel, Ginna Modifications Project Manager
- J. A. Widay, Technical Manager
- P. C. Wilkins, Manager, Nuclear Engineering
- R. E. Wood, Supervisor Nuclear Security

\*Denotes persons present at Exit Meeting on July 8, 1987:

### 2. Licensee Action on Previous Inspection Findings

- a. (Open) Inspector Follow-up Item (82-21-02) Residual Heat Removal (RHR) Subbasement Flood Protection. In December 1982, an inspector noted when the floor drain line to the Auxiliary Building sump became clogged water would backup and spill into the RHR subbasement. This condition has existed for a long period of time and has been documented in NRC inspection reports and the licensee's own Quality Control surveillance reports. On March 2, 1987, at 9:55 A.M., the licensee discovered approximately 10 inches of water in the RHR subbasement. The source of the water was determined to be flushing water draining to the floor drain system which backed up into a pipe chase and flowed into the RHR subbasement which had a clogged floor drain.

During a recent record review the inspector found a request from NRR to the licensee for information on Generic Issue 77, "Flooding of Safety Equipment Compartments by Backflow Through Floor Drains". This correspondence was dated July 17, 1985 and requested a response within 30 days. The inspector was unable to locate a response through the licensee's on-site document control or a NRR docket search. The inspector requested the licensee determine if a response was made to this request. The licensee determined no response was made at the time of the request or subsequently. This item remains open.



### 3. Review of Plant Operations

- a. Throughout the reporting period, the inspector reviewed routine power operations. The plant operated at 100% power for the entire inspection period with only one 2% reduction in power as noted below.
- b. On June 27, 1987, while operating at 100% power a steam leak on the "1A" Main Steam Reheater (MSR) second pass level tank level gauge line began at a test connection cap. Average reactor coolant temperature decreased approximately 1.5 degrees F and control rods which were in automatic stepped out. The control room operators lowered turbine power 2% to compensate for the leak while the steam leak was being isolated. The leak was isolated and repairs were made to the pipe cap within one hour.

### 4. Operational Safety Verification

#### a. General

During the inspection period, the inspector 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 inspector 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, plant conditions, and 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 inspector 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 inspector 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. Drawing Control

During a review of controlled drawing 33013-756, "TSC-Vital Battery Intertie", the inspector observed 18 circuits to have fuse sizes in excess of the National Electric Codes (NEC) values for the wire sizes listed on the drawing. The inspector selected two circuits which had fuse clip sizes rated less than the fuse sizes listed on the drawing and visually examined the circuits to determine the actual as-built configurations. The two circuits examined were:

- Auxiliary Building DC distribution panel 1B1 switch number 5, "Reactor Trip SWGR BRKRS 52/RTB & 52/BYA".
- Screen House DC Distribution panel 1B switch number 1, "Traveling Screen Cont".

Both of these circuits were listed on the drawing as fuse clip 30, fuse size 40, wire size 10. The actual as-built configurations of these circuits were fuse clip 60, fuse size 40, wire size not labeled, but physically larger than 10. The reactor trip breaker circuit was part of revision 8, the most current revision of sheet 2 of 2 for drawing 33013-756 dated April 21, 1987. The drawing designated "As-built (EWR4374)" was initialed by the draftsman, a checker, the responsible engineer, and the Engineering Manager on April 21, 1987. Failure to accurately reflect the D.C. distribution system in controlled drawings is an apparent violation of Technical Specification 6.8.1. (87-16-01)

The inspector has discussed the potential safety implications of oversized fuses in D.C. electrical circuits with licensee management. The licensee has known about oversized fuses in some circuits since May 1986 at which time Corporate Engineering suggested corrective actions which included, replacement of fuses at the next time the circuits could be taken out of service. Although the reactor was shutdown from February 6, 1987 to March 10, 1987 for an annual refueling outage the licensee chose not to replace known oversized fuses until other commitments to qualify new D.C. fuses can be fully implemented for the entire D.C. distribution system.

At the Exit Interview the inspector brought to the attention of the licensee's Corporate Management that in May 1986, 100 ampere fuses were documented as installed in Circuit 11, "Nuclear Sample Panel", of the Turbine Building D.C. Distribution Panel. This circuit contains wire size #10. Various other fuse type and size discrepancies were noted and documented in an Inter Office letter to the Superintendent Ginna Production dated May 28, 1986. Additionally, the licensee has only intermittently pursued configuration control of the D.C. distribution system since 1982. This item will remain unresolved pending further investigation of the safety implications of oversized fuses in the D.C. distribution system safety related circuits. (87-16-02)





c. Backshift and Weekend Inspections

The following backshift inspections were performed this inspection period:

June 21, 1987 -- 11:50 A.M. to 4:50 P.M.  
 June 28, 1987 -- 6:30 A.M. to 9:30 A.M.

The inspector conducted tours of the Auxiliary Building, Intermediate Building, Turbine Building and Screen House. The inspector performed a walkdown of the inside perimeter fences of the facility and observed security personnel on watch. The inspector spent time observing the conduct of operations in the control room, including shift turnovers and reviewing control room logs.

During the perimeter walkdown, the inspector noted tree branches near the top section of a portion of the exterior perimeter fence. This condition was pointed out to the Supervisor of Nuclear Security. The branches were trimmed the next day.

d. Intermediate Subbasement

During a tour of the Intermediate Building Subbasement, the inspector observed a constant inflow of ground water at both sheet piling structural concrete interfaces approximately 3 to 4 feet above the containment tendon greasing sleeve valves. At the interface between the sheet piling and the Auxiliary Building concrete wall the inspector noticed a cavity approximately 16 inches long and 4 inches in height. The cavity extends to a depth of 12 inches at the deepest point. The cavity appears to be a void between two concrete pours. Four pieces of rebar are exposed by this cavity. Two vertical pieces of two inch rebar 3 inches from the cavity surface are circumferentially exposed for approximately 4 inches each. The other two pieces are only partially exposed, one for approximately 4 inches of length and the other for approximately 1 inch of length. All the exposed rebar is rusted. The entire cavity is kept damp by a constant trickle of ground water between the sheet piling and left most portion of the cavity.

A footing separates the sheet piling and the containment. The containment tendon greasing sleeve valves are on the containment side of this footing. The inspector measured the depth of the water and sludge on both sides of the footing. The average depth on the sheet piling side is 12 inches and 7 inches around the valves. This area will continue to be frequently monitored by the resident inspector to obtain information for regional based structural engineers.

One violation was identified.



## 5. 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; 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 inspector witnessed the performance of selected portions of the following tests:

Periodic Test (PT)-2.2, "Residual Heat Removal System", effective June 1, 1987

PT-12.5, "Technical Support Center Emergency Diesel Test", effective June 10, 1987

PT-16, "Auxiliary Feedwater System", effective June 19, 1987.

No violations were identified.

## 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; qualifications; and reportability as required by Technical Specifications.
- b. The inspector witnessed selected portions of the following maintenance activities:

Maintenance Procedure (M)-11.12.1, "Safety Injection Pump Mechanical Inspection", effective April 4, 1986.

Station Modification (SM)-4225.4, "Installation and Testing of Ampetector Overcurrent Devices", effective April 3, 1987

System Operating Procedure (S)-16.16B, "1-B Safety Injection Pump Isolation/Restoration", effective October 9, 1986.

No violations were identified.



## 7. Licensee Event Reports (LERs)

The inspector reviewed the following LERs to verify that the details of the events were clearly reported, the descriptions of the causes were 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 events were reviewed by the Plant Operations Review Committee and that continued operation of the facility was conducted within the Technical Specification limits.

LER 87-003: Inoperable Fire System Detection Alarms and Automatic Suppression Due to Personnel Error During System Disconnect Performance. On March 16, 1987, a major portion of the Fire System Detection and Automatic Suppression was found to have been inoperable for approximately one hour and twenty minutes. Technical Specification 3.14.3.1 requires a continuous fire watch with backup fire suppression equipment to be established within one hour if a spray/sprinkler system is inoperable.

Two root causes were identified by the licensee: 1) failure of personnel to follow procedures during the disconnection of a fire system and 2) lack of visual indication in the control room that a fire zone is disabled.

The immediate corrective action was to restore the fire detection and suppression systems to operable status. The licensee subsequently revised the procedure to require an independent verification of the fire systems during disconnection and reconnection. This verification is accomplished by a licensed operator or a knowledgeable fire control and safety person. An Engineering Work Request (EWR) 4280 was initiated to provide control room indication when the fire system is disabled. The resolution will continue to be followed under Notice of Violation 87-08-01.

LER 87-004: Inadvertent Containment Isolation Due to Personnel Error During Electrical Wire Checkout of Safety Injection Relay Cabinet. On April 24, 1987, a "B" Train Containment Isolation occurred due to personnel inadvertently bumping a relay in the safeguards cabinets while performing a field walkdown of electrical drawings. The root cause of the event was personnel error.

The licensee immediately restored all systems affected by the containment isolation. The personnel involved in the event were made aware of the precautions to be taken while working in electrical cabinets. Work in all electrical safeguards and protection cabinets will be minimized and supervised during power operation.



8. 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 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 reported information was valid. Within this scope, the following report was reviewed by the inspector:

-- Monthly Operating Report for May 1987.

9. 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.

