U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No.: 50-244/87-18

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: July 5, 1987 through August 22, 1987

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

Approved By: C. J. Cowgill Chief, Reactor Projects Section No. 1D, DRP — 9/9/87 Date

Inspection Summary: Inspection on July 5, 1987 through August 22, 1987 (Report No. 50-244/87-18)

Areas Inspected: Routine, on-site, regular, and backshift inspection by the resident inspector (175 hours). Areas inspected included: licensee action on previous findings; review of plant operations; operational safety verification; surveillance testing; plant maintenance; follow-up on Inspection Report 87-08; review of periodic and special reports; and reactive inspection.

Results: In the eight areas inspected, one violation was observed. The violation involved failure to follow procedures in the control of maintenance activities paragraph 7.

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
  J. C. Hotchkiss, 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 August August 27, 1987.

2. Licensee Action on Previous Inspection Findings

a. (Closed) Notice of Violation (87-08-02) Failure to demonstrate operability of valves that provide duplicate function prior to adjusting packing of Motor Operated Valve (MOV) 860B. This violation is being withdrawn. This item is closed and will be followed as a new Notice of Violation 87-18-01 (see paragraph 7).

b. (Open) Inspector Follow-up Item (86-16-01) Housekeeping and material condition of SI pumps and auxiliary building subbasement. Over the past few months the inspector has noted an improvement in the housekeeping in the auxiliary building subbasement. The licensee has taken each Safety Injection (SI) pump out-of-service to facilitate replacement of seal water heat exchanger SI line connections and other boric acid crystal accumulations on these pumps. However, during a recent tour of the auxiliary and intermediate buildings, the inspector found boric acid accumulations on a seal water heat exchanger connection and a few pump connections. The auxiliary building subbasement housekeeping portion of this item is considered closed. The material condition of the SI pumps will be reevaluated in a subsequent report.

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.

b. On August 3, 1987, while operating at 100% power a steam leak was identified in containment. The licensee made a containment entry and determined the leak was from a steam generator blowdown sample line that was isolable. The line was isolated, repairs were completed, and the line returned to service within an 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. Diesel Fuel Out-Of-Specification Viscosity

On August 17, 1987, at 8:00 AM the Plant Chemist received the results of diesel generator fuel oil samples taken on July 9, 1987. Both the 'A' and 'B' diesel generator fuel oil samples did not meet viscosity specifications as set by Technical Specification (TS) 4.6.1.c. The viscosity specification at 100 degrees F is 32.6 to 40.1 Saybolts, the 'A' and 'B' diesel fuel samples were 30.7 and 31.0 Saybolts respectively.

The Chemist initiated an event report in accordance with Administrative Procedure (A)-25.1, "Ginna Station Event Report", stating the TS 4.6.1.c viscosity specification range and the sample results. Additionally, the Operations Manager, the Health Physics and Chemistry Manager, and Quality Control were notified and a new sample was taken and sent off site for analysis. The Operations Manager felt the Diesel Generators were operable based on other indications and previous periodic test runs at full power. The Shift Supervisor was informed of the decision of the Operations Manager.

At approximately 10:00 a.m., the Plant Chemist gave the Shift Supervisor the A-25.1. Upon reviewing the event report the Shift Supervisor consulted with the Operations Manager about whether or not a TS violation was involved. The Operations Manager and the Plant Chemist decided the sample results could be questionable and the out-of-specification analysis was not a TS violation.

The results from the second sample analyzed at 2:45 PM on August 17, 1987 confirmed the first sample results that viscosity was below the TS limit. When the results of the second sample were obtained, licensee management started making plans to shut down the reactor and be in Hot Shutdown in another six hours. These plans were made although licensee management still believed the reanalysis to be in error since:

1. There was no reason for the viscosity to change like it had without changes in other parameters such sediment and water content.

2. The results of the two samples were outside the repeatability band of the analysis.

3. The supply tank for all diesel fuel oil deliveries was within specifications.

4. The diesels had passed the periodic load tests at full load.

In a parallel effort the licensee contacted the diesel manufacturer (ALCO) and the oil supplier (Mobil) to determine if a lower viscosity would be allowable. Within an hour, the licensee obtained confirmation from ALCO and Mobil the lower viscosity fuel sample results were still acceptable. ALCO and Mobil stated that the diesel could be safety run with viscosity at 30 or higher. The licensee obtained sample results at approximately 7:30 PM that showed the results were within the original viscosity limits (32.6-40.1). On August 19, 1987, results from an independent laboratory (Doble Engineering) confirmed these results.

The inspector reviewed the event of August 17, 1987 as described above. TS 3.7.1.d and 4.6.1.c and the licensee's A-25.1 event report were examined by the inspector. Discussions were held with licensee management and personnel involved in the event and assessment.

Technical Specification 3.7.1 states,

"The reactor shall not be maintained critical without:

d. Two diesel generators operable with on-site supply of 10,000 gallons of fuel available.

Technical Specification 4.6.1 states,

"Each diesel generator shall be demonstrated operable:

c. At least once per 92 days by verifying that a sample of diesel fuel from the diesel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-78 when checked for viscosity, water and sediment.

Ginna Station Event Report 87-74 identified both the 'A' and 'B' diesel generator fuel oil samples did not meet viscosity specifications as set by TS 4.6.1.c. The report noted the viscosity specification of 32.6 to 40.1 Saybolts, the 'A' and 'B' diesel fuel samples results of 30.7 and 31.0 Saybolts respectively. The report also identified days the diesels were run in the past two months and the tanks were resampled with results expected in the afternoon. The A-25.1 was not logged in the control room log until 10:52 AM, a typical delay for such reports initiated outside the control room. The Shift Supervisor upon receiving the report questioned the need to enter a TS LCO and consulted with the Operations Manager. The Operations Manager told the Shift Supervisor this was not a Technical Specification violation. The Shift Supervisor continued to fill out the assessment portion of the report with the understanding the out-of-specification viscosity was not a problem.

The licensee management stated they felt the first sample results were in error since previous fuel samples were in specification, the diesels had been run at full load since the last results, in the past the results of fuel oil viscosity tests were in error, and it is the standard practice at Ginna to confirm out-of-specification chemistry results by analyzing a second sample.

In a letter from RG&E to NRC Region I, dated August 31, 1983, the licensee identified a failure of Diesel Fire Pump fuel oil chemistry to meet the viscosity requirements of Technical Specification 4.15.2.e. The letter stated that on March 20, 1983, the plant chemist received the sample results from a January 7, 1983 sample of diesel fire pump fuel oil that indicated viscosity was below the T.S. limit. The licensee took a second sample on March 22, 1983, and sent the sample to the off-site chemistry laboratory for analysis. On March 29, 1983, the plant chemist received the results of the analysis indicating the fuel oil was within acceptable limits. The licensee's letter stated it was standard practice at Ginna to confirm out-of-specification chemistry results by analyzing a second sample as in procedure S-3.1P for the Boric Acid Storage Tanks. The licensee also stated taking ten days from the time the first sample was out-of-specification until the results of a second sample were reviewed showed a lack of proper administrative controls and committed to revise procedure WC-1, "A List of Sample Chemistry Parameters and Sampling Schedule".

The inspector determined that WC-1 requires resampling upon receiving out-of-specification fuel oil analysis with a request that the sample be analyzed the next work day.

Ginna Technical Specifications 3.7.1.d and 4.6.1.c do not contain provisions that allow for "grace periods" during which Technical Specification action statements and 10CFR50.72 reporting requirements can be ignored so that confirmatory samples can be taken and analyzed prior to declaring the diesel generator inoperable.

The inspector's review of this event identified concerns about the licensee's practice of using "grace periods" to verify unfavorable fuel oil analysis before entering and reporting Technical Specification LCOs. Further, the inspector believes the licensee management does not understand when an LCO time clock begins. This item will remain unresolved. (87-18-01)

c. <u>Containment Storage</u>

On August 12, 1987, while performing of calibrations of Containment Area High Range Radiation Monitors R-29 and R-30, the inspector observed poor ALARA practices by licensee personnel due to the excessive storage lockers in containment. Licensee personnel had to move

an unsecured, unlocked storage locker to gain access to R-29 to perform the calibration and returned the locker after the work was complete. The locker is both a potential missile hazard and provides unnecessary shielding of the detector. As detailed in Inspection Report 87-04, the licensee stores equipment, ladders, lockers, and tool boxes on all levels of containment. The licensee does not perform inventories of lockers or tool boxes and during a previous containment entry the inspector observed flamable lubricant and rags stored in the same locker. The excessive use of storage in containment appears to be poor housekeeping, a potential safety hazard, and a poor contamination control practice, in addition to being a poor ALARA practice.

d. Error in Technical Specification 6.2.2.a

While reviewing the minimum shift crew composition, the inspector noted TS 6.2.2.a refers to three figures only two of which are currently relevant. A Shift Technical Advisor (STA) is required on-shift when RCS average temperature is greater than 200 degrees F. It appears that during a licensee reorganization the STA chain of command changed from the nuclear assurance manager to the operations manager and the verbiage of TS 6.2.2.a was not changed to reflect changes to the organization charts referred to in the TS. The resident inspector informed the NRC licensing project manager who will discuss the matter with the RG&E Licensing Manager.

No violations were 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)-22.2, "Personnel Hatch Door Seal Leakrate Test", effective August 4, 1987.

PT-17.2, "Process Radiation Monitors R-11 - R-22 Iodine Monitors R-10A and R-10B", effective August 4, 1987.

PT-13.3, Fire Pump Electrical Equipment Surveillance", effective June 27, 1986.

Calibration Procedure (CP)-224, "Calibration and/or Maintenance of Containment High Range Area Monitors R-29 and R-30", effective August 14, 1987.

c. Performance of Surveillance Test Without Procedures

During the performance of PT-22.2, no copy of the procedure was present at the equipment hatch. However, the technician did call in manifold pressures and temperatures at the completion of both the outer and inner door seals pressurizations. This is a radiologically controlled area and the technician pulled back his protective gloves and used his wrist watch to time the manifold pressure decay. The inspector has observed licensee personnel checking their wrist watches in the Intermediate and Auxiliary building controlled areas in the past, especially, when work gloves are used. When the licensee institutes the taping of gloves to coveralls in controlled areas the practice of using a wrist watch to time such tests may become difficult. The inspector discussed the lack of procedures at the work site with the Superintendent of Support Services.

d. Discrepancy in P-9 Setpoint Table and Basis Values

The inspector observed the control and head control operators perform R-19 and R-20 portions of PT-17.2. PT-17.2 requires verifying the RMS tape setpoints agree with P-9 (Radiation Monitoring System). The procedure does not indicate which part of P-9 is to be used, the verbiage or the setpoint table. When the operators verified the R-19 tape they found disagreement between the alarm setpoint table and the basis (verbiage). The operators set the alarm setpoint to the most conservative setting 5,000 cpm above background as specified in the basis of P-9 vice the table value of 40,000 cpm above background. The tape on R-19 indicated 5K. These tape setpoints are label tape numbers that do not indicate their purpose. Since the labels must be verified each time PT-17.2 is performed the inspector asked the licensee about the usefulness of such a system.

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)-45.2, "Non-Safety Related Motor Minor Inspection" effective May 8, 1987. This work was accomplished on the Auxiliary Building 'A' Sump Pump.

Station Modification (SM)-4225.4, "Installation and Testing of Amptector Overcurrent Devices", effective April 3, 1987. This work was performed on the 'C' Safety Injection Pump and the 'B' Containment Spray Pump.

No violations were identified.

7. Follow-up From Inspection Report 87-08

The packing of Motor Operated Valve (MOV) 860B (containment spray pump '1A' discharge valve) was adjusted on April 9, 1987, using Ginna Station Maintenance Work Request Trouble Report 87-2080. This work request had been reviewed by the Shift Supervisor when it was initiated and assigned the routine priority for a packing leak. Subsequently, the responsible maintenance reviewer designated the work request as "non-QA". The pipefitter performing the work did not question the reviewer's decision and adjusted the packing without informing the control room that the packing was being adjusted on a safety-related system. Additionally, no post-maintenance testing to determine operability was performed on the valve following the maintenance.

On April 10, 1987, while performing PT-3, MOV 860B stroked open however, attempts to stroke the valve closed were unsuccessful. The PT was suspended and electricians were called to determine the cause of the failure of MOV-860B to close. The inspector observed the electricians at the MOV breaker cubicle. While the electricians were installing a clamp-on amp meter to begin trouble shooting, pipefitters had arrived at the MOV and loosened the packing. Since the electricians could no longer determine the as-found condition of the MOV the breaker cubicle was closed. The electricians returned to the MOV and adjusted limit switch settings. The valve was stroked open and closed several times after the packing and limit switch maintenance.

When PT-3 was resumed and the containment spray pump started MOV 860B began leaking at the packing gland. The pipefitters were called to adjust the packing for a second time. When the pipefitters arrived to adjust the packing PT-3 had progressed to point the containment spray pump was secured. The packing was tightened and the MOV stroked open and closed several times without the containment spray pump operating.

On May 14, 1987, when PT-3 was performed MOV 860B stroked open however, attempts to stroke the valve closed were unsuccessful. Subsequently, the licensee loosened the valve packing to allow the valve to successfully stroke closed. After the PT was complete, the inspector requested the licensee stroke the valve with the containment spray pump running to ensure the operability of MOV 860B after packing adjustment. The valve was stroked while the containment spray pump was running and did not leak.

Failure to control maintenance activities of safety-related equipment and the subsequent failure to perform post-maintenance testing of safety-related equipment is an apparent violation of Technical Specification 6.8.1. (87-18-01)

One apparent violation was identified.

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 reports were reviewed by the inspector:

-- Monthly Operating Report for June 1987.

-- Monthly Operating Report for July 1987.

9. Reactive Inspection

In response to a Region I inquiry to the type of degraded safeguards bus voltage protection at Ginna the inspector conducted a review of Technical Specifications (TS) and procedures. The inspector determined TS 2.3.3.1 and 2.3.3.2 describe the limiting safety system settings that must be met for loss of and degraded 480 volt safeguards bus voltage relays, TS 4.1.1 specifies monthly testing of the relays, and PT-9.1, "Undervoltage Protection - 480 Volt Safeguard Busses" is performed monthly to test these relays. The inspector also determined the licensee's abnormal procedure AP-ELEC.2, "Safeguards Busses Low Voltage or System Low Frequency" appears to address a failure of the 480 volt undervoltage relays.

No violations were identified.

10. 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.