U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/88-08

Licensee No. DPR-18 Priority -- Category C

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

Facility: R. E. Ginna Nuclear Power Plant

Location: Ontario, New York

Inspection Conducted: April 6 - May 8, 1988

Inspectors: C. S. Marschall, Senior Resident Inspector, Ginna
N. S. Perry, Resident Inspector, Ginna

Approved by: W. Baunack for 5/26/88
C. J. Cowgill Chief, Reactor Projects Section 1A Date

Summary:

Areas Inspected: Routine inspection by the resident inspectors of station activities including plant operations, Boric Acid system, surveillance testing, maintenance, emergency diesel generator, physical security, control of valve positions, written reports, and periodic and special reports.

Results: In the nine areas inspected, one violation was observed, and one unresolved item remains open. The unresolved item involves the lack of reviews to meet the requirements of 10 CFR 50.59; see Section 2.a. The violation involves failure to follow procedures in the control of valve positions; see Section 2.h. A commitment, made in 1980, addressing verification of proper system alignment per NUREG 0737, was not properly implemented.

DETAILS

1. Persons Contacted

During this inspection period, inspectors held discussions with and interviewed operators, technicians, engineers and supervisory level personnel. The following people were among those contacted:

*J. C. Bodine, Nuclear Assurance Manager
D. L. Filkins, Chemistry & Health Physics Manager
R. W. Kober, Senior Vice President, Production and Engineering
*R. A. Marchionda, Training Manager
*T. A. Marlow, Maintenance Manager
*T. A. Meyer, Superintendent Ginna Support Services
J. T. St. Martin, Station Engineer
*T. R. Schuler, Operations Manager
L. F. Smith, Operations Supervisor
B. A. Snow, Superintendent Nuclear Production
S. M. Spector, Superintendent Ginna Station
*J. A. Widay, Technical Manager
*R. E. Wood, Supervisor Nuclear Security

*Denotes persons present at exit meeting on May 9, 1988.

2. Functional or Program Areas Inspected

a. Review of Plant Operations (71707)

At the beginning of the inspection period, the plant was operating at approximately 100% power. On April 5, 1988, the licensee identified normally locked closed valve 879 (safety injection test line outside containment isolation valve), unlocked and open; licensee actions are reviewed in Section 2.h. During a monthly surveillance test of the B emergency diesel generator, on April 15, 1988, a license trainee closed the output breaker approximately 120 degrees out of phase; discussed in Section 2.f. While performing an Engineered Safety Feature (ESF) walkdown on the Boric Acid System, Section 2.h, the inspector identified two valves out of position. On April 30, 1988, plant power was reduced to approximately 47 percent to plug 2 leaking condenser tubes. The plant was returned to full power that evening.

On April 27, 1988, the licensee determined a check valve on the discharge of the Turbine Driven Auxiliary Feedwater Pump (TDAFP) was leaking. The valve was isolated, disassembled and the disk replaced. The replacement disk, a one-piece forging, required grinding on non-seating surfaces to obtain a proper fit. Maintenance personnel replaced existing Belleville washers with new washers supplied by the valve manufacturer. Due to an error in manufacturing the washers, valve assembly was not completed until approximately 5:00 A.M., May 4, 1988. Post-maintenance testing

was initiated after 7:00 A.M. on May 4, 1988 and completed prior to expiration of the Technical Specification Limiting Condition for Operation (LCO) time limit at 9:40 A.M., May 4, 1988.

Two Non-Conformance Reports (NCRs) were issued, to document grinding of the valve disk and use of carbon steel replacement Belleville washers in place of the original stainless steel Belleville washers. An engineering evaluation was completed to justify using the disk and carbon steel washers. The resident inspectors informed the licensee of the review required by 10 CFR 50.59; therefore, a review was completed prior to expiration of the LCO. The licensee stated reviews to meet requirements of 10 CFR 50.59 are not completed for activities documented on NCRs. This indicates a potential weakness in the licensee's program for control of plant modifications. Review of the program for control of modifications will be conducted in a future inspection report (UNR 50-244/88-08-01).

On May 7, 1988, plant power was briefly reduced to approximately 47 percent to plug nine leaking condenser tubes.

b. Engineered Safety Feature (ESF) System Walkdown (71710)

A complete walkdown of accessible portions of the Boric Acid System was performed to verify its operability. The inspectors verified the licensee's lineup matched plant drawings and as-built configurations. System components were checked for labeling, cleanliness, and state of repair. Two valves were identified out of position, as discussed in Section 2.h.

c. Operational Safety Verification (71707)

On a daily basis, inspectors observed shift turnover and conduct of operations in the control room. Operators were attentive and responsive to plant parameters and conditions.

During the previous inspection period, housekeeping was identified as needing increased management attention, especially in the Auxiliary and Intermediate buildings. Cleanliness has improved considerably; however, storage of items is slow in improving, with more attention needed.

d. Monthly Surveillance Observation (61726)

Inspectors observed portions of surveillance test procedures to verify test instrumentation was properly calibrated, approved procedures were used, work was performed by qualified personnel, Limiting Conditions for Operation were met, and the system was correctly restored following testing. The following surveillance activities were observed:

-- Periodic Test (PT)-12.2, Revision 37, "Emergency Diesel Generator 1B", effective date April 6, 1988, observed April 15, 1988.

-- PT-16, Revision 49, "Auxiliary Feedwater System", effective date March 24, 1988, observed May 4, 1988.

Licensee controls and procedures were adequate to insure surveillance activities were conducted in accordance with license requirements.

e. Monthly Maintenance Observations (62703)

The inspectors observed portions of various safety-related maintenance activities to determine that redundant components were operable, activities did not violate Limiting Conditions for Operation, required administrative approvals and tagouts were obtained prior to initiating work, approved procedures were used or the activity was within the "skills of the trade", appropriate radiological controls were implemented, ignition/fire prevention controls were properly implemented, and equipment was properly tested prior to returning it to service.

-- Maintenance (M)-32.1, "DB-25, DB-50 and DB-75 circuit breaker maintenance and overcurrent trip device test and/or replacement", effective date March 8, 1988, observed April 15, 1988.

-- Calibration Procedure (CP)-32, "Calibration and/or maintenance of source range N-32", effective date October 23, 1987, observed May 6, 1988.

-- Replacement of HCV Flexitallic gaskets under Maintenance Work Requests (MWRs) 86-5011 and 86-1568, observed May 5, 1988. Although replacing the gaskets in the Residual Heat Removal (RHR) throttle valve was within the skills of the trade of the maintenance personnel, a detailed set of work instructions was used to insure a carefully controlled safety-related maintenance activity. The use of work instructions, although not required, is considered good practice.

Licensee control of these activities was adequate to ensure component operability.

f. Emergency Diesel Generator (EDG) (71707)

On April 15, 1988, while performing the monthly EDG surveillance, an inexperienced license operator trainee closed the output breaker approximately 120 degrees out of phase. The trainee was under the direct supervision of a licensed operator who immediately confirmed the breaker tripped open by taking the control switch to the trip position. The licensee removed the B EDG from service to examine the breaker, and started the A EDG as required by Technical Specifications. The breaker had opened automatically due to overcurrent; however, the breaker's contacts were burnt due to arcing. Electrical maintenance personnel

cleaned, tested, and made adjustments as necessary to the breaker before returning it to service, section 2.e. The breaker performed satisfactorily during testing to return the B EDG to operable status.

Licensee actions were appropriate by removing the B EDG from service to verify no damage resulted from the incident. Following breaker maintenance, system operability was appropriately verified by performing the applicable surveillance test.

g. Physical Security Review (71881)

The inspectors made observations to verify selected aspects of the station physical security program were in accordance with regulatory requirements, including the physical security plan and approved procedures.

Physical barriers surrounding the protected area were examined to verify barriers: meet 10 CFR 73 requirements, channel persons, vehicles and materials to entry control points; and are maintained to meet applicable performance requirements.

Recently, barbed wire, topping the inner fence surrounding the protected area, was replaced. The inspectors verified the new barbed wire was installed properly.

The licensee's physical barriers, surrounding the protected area, were found adequate and appropriate for the intended function.

h. Control of Valve Positions (71707, 71710)

On April 5, 1988, the licensee identified normally locked closed valve 879 unlocked and open. Valve 879 is the safety injection test line outside containment isolation valve. Licensee investigation revealed the valve was last stroked March 24, 1988 during plant heatup. Procedure O-1.1, step 5.55.10, directs valve 879 be locked closed. The step was signed as complete; however, the licensee believes the step was not performed completely. No double verification of the valve's position was performed. Immediate actions were to close and lock the valve, and perform a complete Safety Injection system lineup.

On April 17, 1988, during a weekend plant tour, the inspector identified valves 332 and 340, in the Boric Acid system, open. Procedure S-3.1B, Pre-operational Line Up of Boric Acid system, and station print 33013-1266, Boric Acid, require both valves closed. The inspector notified the licensee who verified the valves open, closed them, and checked the system alignment by performing procedure S-3.1B. The valves were repositioned when part of the Boric Acid system was isolated as part of a tagging order (called a 'hold') to repair a small leak. Although valves 332 and 340 were repositioned, they were not tracked as part of the 'hold'. When the Boric Acid system was restored following removal

from 'hold' status, valves 332 and 340 were overlooked; no tracking or independent verification was performed for these valves. This is a violation (VIO 50-244/88-08-02).

As a result of these problems associated with independent verification, the licensee's commitments for independent verification of equipment alignment were investigated. The inspectors identified a commitment made in a letter from RG&E to the NRC dated December 15, 1980. In reference to Clarification of TMI Action Plan Requirements (NUREG 0737), item I.C.6, Guidance on Procedures for Verifying Correct Performance of Operating Activities, the letter states: "We intend to meet the intent of the requirements of this position as it is applied to safety related equipment and systems." Item I.C.6 of NUREG 0737 requires, in part, a second qualified operator to verify proper system alignment for return-to-service of equipment important to safety, unless functional testing can be performed which proves correct system alignment. The licensee has not routinely performed the required second verification when returning equipment to service. Apparently, the commitment was addressed by incorporating a step in procedure A-1401, Station Holding Rules, stating that restoration of all apparatus shall be effected by an operator and verified by a second operator or STA. However, plant management was unaware of the system alignment verification commitment. Operations personnel interpreted the step as requiring a verification of tag removal rather than of system alignment. Until April 19, 1988, verification during 'hold' restoration was an accounting of tags only.

On April 19, 1988, the operations manager issued an interim policy on double verification, due to the recent incidents of systems identified out of alignment. The interim policy requires two independent signoffs for each realigned component. Additionally, the interim policy requires that all isolations and realignments shall be done in accordance with a procedure or a System/Equipment Alignment Worksheet must be generated.

A commitment made in 1980 but not properly implemented demonstrates a need for improvement in the licensee's program for verifying and tracking proper implementation of commitments.

Valves found out of normal alignment demonstrate a lack of administrative controls for handling and tracking valve positions.

i. <u>Review of Written Reports of Nonroutine Events (90712)</u>

Written reports submitted to the NRC were reviewed to determine whether details were clearly reported, causes properly identified and corrective actions appropriate. The inspectors also determined whether assessment of potential safety consequences had been properly evaluated, generic implications were indicated, events warranted onsite follow-up, reporting requirements of 10 CFR 50.72 were applicable, and requirements of 10 CFR 50.73 had been properly met.

The following LERs were reviewed and found to be satisfactory (Note: dates indicated are event dates):

-- 88-002, 3/8/88, Level Instrument Malfunction Causes Boric Acid Volume To Be Less Than 2000 Gallons, A Condition Prohibited By Technical Specifications.

-- 88-003, 3/10/88, Low Steam Generator Water Level During Unit Start-up, Due To Reactor Coolant System Temperature Control Problems Causes Reactor Trip.

-- 88-004, 3/14/88, "B" Steam Generator Tube Leak Due To, Miscall Of Eddy Current Data During Recent Refueling and Maintenance Outage Causes a Plant shutdown.

No unacceptable conditions were identified.

j. Review of Periodic and Special Reports (90713)

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: reports contained information required by the NRC; test results and/or supporting information were consistent with design predictions and performance specifications; and reported information was valid. Within this scope, the following report was reviewed by the inspectors:

-- Monthly Operating Report for March 1988.

The report was considered adequate to meet regulatory requirements.

3. Exit Interview (30703)

At periodic intervals during the inspection, meetings were held with senior facility management to discuss inspection scope and findings. During this inspection period, one violation and one unresolved item were identified. The violation deals with the licensee's control of equipment alignment and the unresolved item deals with the licensee's reviews to meet the requirements of 10 CFR 50.59. Additionally, a commitment made in 1980, to meet NUREG 0737 requirements regarding verification of proper system alignment was not properly implemented. Based on NRC Region I review of this report and discussion held with licensee representatives, it was determined this report does not contain information subject to 10 CFR 2.790 restrictions.