U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/89-11 License No. DPR-18

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

Facility: R. E. Ginna Nuclear Power Plant

Location: Ontario, New York

Dates: June 1 through July 9, 1989

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

Approved by: Ebe C. McCabe, Jr. 9/1/89
E. C. McCabe, Chief, Reactor Projects Section 3B Date

Summary:

Areas Inspected: Routine inspection (106 hours) by the resident inspectors of station activities including plant operations, radiological controls, maintenance, surveillance, security, periodic and special reports, written reports of nonroutine events, and a dropped rod. The inspection included 21 hours of backshift inspection and 4 hours of deep backshift inspection (between 10:00 p.m. and 5:00 a.m.).

Results: The plant operated safely. In one instance control room personnel failed to declare an Unusual Event as required (section 3.2.), but that was assessed as an isolated exception to the normally good emergency plan implementation, with little safety significance.

TABLE OF CONTENTS

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:

S. Adams, Technical Manager
D. Filkins, Manager of HP & Chemistry
A. Jones, Corrective Action Coordinator
R. Marchionda, Director of Outage Planning
*T. Marlow, Superintendent, Support Services
R. Mecredy, General Manager, Nuclear Production
A. Morris, Maintenance Manager
J. St. Martin, Corrective Action Coordinator
T. Schuler, Operations Manager
L. Smith, Operations Supervisor
*S. Spector, Superintendent, Ginna Station
*J. Widay, Superintendent, Ginna Production

*Denotes persons present at exit meeting on August 17, 1989.

2. Summary of Plant Operations

At the beginning of the inspection period the plant was at approximately 50 percent power following the recent refueling outage. On June 1, 1989 the plant tripped from 53 percent power when the ATWS Mitigation System Actuation Circuitry was placed in service. The plant was returned to power on June 2, 1989.

On June 19, 1989, two Safety Injection (SI) pump recirculation valves were discovered locked open by the licensee; the required positions were locked throttled to 80% shut. A load reduction from full power was initiated and an Unusual Event was declared. The load reduction was stopped at 79 percent power after the valves were throttled as required. The plant was returned to full power later the same day.

During performance of the SI system monthly surveillance on June 21, 1989, the licensee was unable to obtain repeatable results for recirculation flow for two of the pumps. The pumps were declared inoperable and the plant was shut down. NRC Inspection Report No. 50-244/89-18 provides details of the review of the events described above. The plant was returned to power on June 25, 1989.

On July 6, 1989, while performing a surveillance to prove operability of the Microprocessor Rod Position Indication System, a shutdown bank rod dropped. An automatic runback of the main turbine occurred, and power was further reduced manually to less then 50 percent power because the quadrant-to-average power tilt ratio was out of specification. The rod was

recovered, quadrant-to-average power tilt ratio was returned to within specification, and power was increased. Full power was achieved on July 7, 1989 and was maintained through the rest of the inspection.

3. Functional or Program Areas Inspected

a. Plant Operations (71707, 71711)

The inspectors confirmed that the R. E. Ginna Nuclear Power Plant operated safely and in conformance with license and regulatory requirements. Portions of Rochester Gas and Electric Corporation management control systems were evaluated to assure effective discharging of responsibilities for safe operation.

The inspectors observed operator actions in the control room immediately following the plant trip on June 1, 1989 and concluded that operator actions were appropriate and in accordance with approved procedures. Emergency Procedures were used as prescribed and the plant was stabilized.

On June 21, 1989 operators shut down the plant as required by Technical Specification 3.0.1 when a Limiting Condition for Operation (LCO) was not satisfied because of circumstances in excess of those addressed in Technical Specification 3.3.1.1.c and 3.3.1.4. Technical Specification 3.3.1.1.c requires three SI pumps operable when reactor coolant system pressure and temperature are at or above 1600 psig and 350 degrees Fahrenheit. Technical Specification 3.3.1.4 allows one SI pump to be inoperable for up to 72 hours. Although operators correctly shut down the plant, they failed to declare an Unusual Event. Site Contingency Procedure (SC)-100, Ginna Station Event Evaluation and Classification, requires control room personnel to classify the situation using the guidelines of Appendix I or II. Appendix I, Detailed Accident Classification, classifies exceeding an LCO for operation on a safety system and thereby requiring a plant shutdown as an Unusual Event. At the end of this step the words "as determined by the S.S." appeared. The shift supervisor misinterpreted this to pertain to the entire step; however, the statement pertains to instrumentation systems only. The licensee intends to correct this problem by rewording the step to clarify the meaning.

Immediately prior to and during the plant shutdown, facility personnel and the NRC were informed as required during an Unusual Event. State and local governments were not, however, notified. This instance of poor performance was evaluated as isolated; emergency planning performance has otherwise been quite good. This performance deficiency has been identified to NRC Region I Emergency Planning section for consideration in future inspection planning.

No notice of violation was issued since this was considered an isolated instance, acceptable corrective action was taken through procedure improvement and operator training, and there was minor safety or environmental significance (50-244/89-11-01). The inspector had no further questions.

b. Radiological Controls (71707)

During this inspection period, the resident inspectors periodically verified that radiation work permits were implemented properly, dosimetry was correctly worn in controlled areas and dosimeter readings were accurately recorded, access control at entrances to high radiation areas was adequate, personnel used contamination monitors as required when exiting controlled areas, and postings and labeling were in compliance with regulations and procedures. No inadequacies were found.

On June 12, 1989 during the normal review process, the licensee discovered that a late release of the waste gas decay tanks had occurred on May 30, 1989. This event is reviewed in NRC inspection report 50-244/89-18.

c. Maintenance (62703)

The inspectors observed portions of various safety-related maintenance activities to verify 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. Portions of the following maintenance activities were observed:

-- Maintenance (M)-37.96, "Valve Packing Gland Adjustment on Manual QA Safety Related Valves," revision 3, effective date February 18, 1989, observed June 6, 1989.

This maintenance activity was carried out in a very careful and controlled manner with good coordination and coverage by the health physics technician.

-- EM-673, "Leak Testing of Check Valves CV-4003 and CV-4004 on Turbine Auxiliary Feed Water Pump," revision 5, effective date June 30, 1989, observed July 7, 1989.

The inspectors concluded that both maintenance activities were performed adequately.

d. Surveillance (61726)

On June 7, 1989 the licensee discovered that Periodic Test PT-21, Cleaning Boric Acid Tank Sensing Lines, was not performed as required on June 1, 1989. This event is reviewed in NRC Inspection Report 50-244/89-18.

e. Security (71707)

During this inspection period, the resident inspectors verified that x-ray machines and metal and explosive detectors were operational, Protected Area and Vital Area barriers were well maintained, access control during security turnover was adequate, personnel were properly badged for unescorted or escorted access and compensatory measures were implemented when necessary. No inadequacies were identified.

f. Review of Periodic and Special Reports (90713)

Upon receipt, periodic and special licensee reports submitted pursuant to Technical Specifications 6.9.1 and 6.9.3 were reviewed. This review included whether the reports contained the information required by the NRC, whether the test results and/or supporting information were consistent with design predictions and performance specifications, and whether reported information was valid. The following report was reviewed.

-- Monthly Operating Report for May 1989.

No inadequacies were identified.

g. Review of Written Reports of Nonroutine Events (90712)

Written reports submitted to the NRC were reviewed to determine whether details were clearly reported, causes were properly identified and corrective actions were appropriate. The inspectors also assessed whether potential safety consequences and generic implications had been properly evaluated, whether events warranted onsite follow-up, and whether reporting requirements of 10 CFR 50.72 and 10 CFR 73 had been properly met.

The following LERs were reviewed (Note: date indicated is event date):

-- 89-002, May 6, 1989, Safeguards Bus Undervoltage During Relay Testing Due to Inadequate Procedure Review Caused the "A" Emergency Diesel Generator to Automatically Start and Accept Load.

-- 89-003, May 18, 1989, During Performance of Periodic Test (PT-32.1) a Procedural Inadequacy Caused a Safety Injection.

No unacceptable conditions were identified.

h. Dropped Rod (93702)

On July 6, 1989, during performance of Periodic Test PT-1, Rod Control System, a shutdown bank rod dropped. Control room operators followed procedures to stabilize the plant and retrieve the rod.

The inspectors observed the retrieval and concluded that appropriate, approved procedures were complied with and actions were adequate to ensure safe operation of the plant. Plant management, including the Technical Manager, a reactor engineer, was involved in all decisions. This evaluation was determined to be well supervised.

After the rod dropped the licensee entered Technical Specification (TS) 3.10.2.5, due to the quadrant-to-average power tilt ratio being equal to greater than 1.12. In this case, the technical specifications (TS 3.10.2.5) require a plant shutdown but do not specify any time limit such as later model technical specifications (e.g., 2 hours to correct, or 4 more hours to be shut down). Plant procedures call for reducing power below 50% until the rod is recovered and the quadrant tilt is corrected. This was done. The licensee has recognized the inadequacies in the Control Rod and Power Distribution Limit Technical Specifications and has drafted new ones. After technical review, the licensee expects to submit the new specifications to the NRC within the next year. The inspector had no further questions

4. Exit Interview (30703)

The inspectors met with senior plant management periodically and at the end of the inspection period to discuss the inspection scope and findings.