

August 23, 2001

Dr. Robert C. Mecredy
Vice President, Nuclear Operations
Rochester Gas and Electric Corporation
89 East Avenue
Rochester, New York 14649

SUBJECT: GINNA - NRC INSPECTION REPORT 50-244/01-07

Dear Dr. Mecredy:

On August 11, 2001, the NRC completed an inspection of your R. E. Ginna facility. The enclosed report documents the inspection findings which were discussed on August 17, 2001, with you and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

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Sincerely,

/RA/

Michele G. Evans, Chief
Projects Branch 1
Division of Reactor Projects

Docket No. 50-244
License No. DPR-18

Enclosure: Inspection Report 50/244/01-07

Attachment 1 - Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-244
License No: DPR-18

Report No: 50-244/01-07

Licensee: Rochester Gas and Electric Corporation (RG&E)

Facility: R. E. Ginna Nuclear Power Plant

Location: 1503 Lake Road
Ontario, New York 14519

Dates: July 1, 2001 to August 11, 2001

Inspectors: H. K. Nieh, Senior Resident Inspector
C. R. Welch, Resident Inspector
T. A. Moslak, Health Physicist

Approved by: M. G. Evans, Chief
Projects Branch 1
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000244-01-07, 07/01-08/11/2001, Rochester Gas & Electric, R. E. Ginna Nuclear Power Plant. Resident Operations Report.

The inspection was conducted by resident inspectors and a regional radiation protection specialist.

A. Inspector Identified Findings

None.

B. Licensee Identified Violations

None.

Report Details

SUMMARY OF PLANT STATUS

Ginna began the period at full power. On July 28, 2001, operators reduced plant power level to approximately 50% to perform main condenser cleaning. Full power operation was resumed later that day and continued through the end of the inspection period.

1. REACTOR SAFETY

Initiating Events, Mitigating Systems, and Barrier Integrity [Reactor - R]

R04 Equipment Alignment

a. Inspection Scope

The inspectors walked down manual test connection valves, caps, and flanges which also function as containment isolation boundaries. This inspection verified that these containment boundaries were in the proper position (i.e., closed or installed). The inspectors observed the performance of procedure PTT-23A, "Containment Isolation Valve Test Connection Boundary Control," for the containment isolation boundaries located in the auxiliary building and intermediate building (hot side). The inspectors referenced Ginna's technical specifications and updated final safety analysis report, to verify that procedure PTT-23A included the correct containment isolation boundaries.

The inspectors also performed a partial walkdown of the rod control system, which had been experiencing spurious non-urgent failure alarms on the main control board due to elevated ambient temperatures. This inspection verified that the rod control system power supply cabinets and selected rod control system switches in the control room were properly configured, and that control rod positions and indications were within technical specification limits. Additionally, the inspectors reviewed the installation of a temporary cooling system for the rod control system power supply cabinets to determine if the temporary system adversely affected the rod control system. Ginna's technical specifications, updated final safety analysis report, and the cycle 29 core operating limits report were used as references.

b. Findings

No findings of significance were identified.

R05 Fire Protection

a. Inspection Scope

The inspectors toured the following plant areas to assess RG&E's control of combustible materials and ignition sources, and the physical condition of installed fire suppression and detection systems.

- Turbine building basement
- Onsite transformer yard
- Control room

- Control building air handling room

These inspections verified that no uncontrolled transient combustibles were present, that sprinkler heads and installed fire/smoke detectors were clean and unobstructed, that fire barriers and penetration seals were properly maintained, and that portable fire extinguishers and fire hose stations were in good condition. Ginna's technical requirements manual and station procedures A-54.7, "Fire Protection Tour," FPS-1, "Fire Barrier Control Procedure," FPS-2, "Ginna Station Fire Barrier Penetration Seal Program," and FPS-16, "Bulk Storage of Combustible Materials and Transient Fire Loads," were used as references.

b. Findings

No findings of significance were identified.

R06 Flood Protection Measures

a. Inspection Scope

The inspectors toured the auxiliary building, turbine building basement, battery rooms, emergency diesel generator rooms, and screen house basement to evaluate RG&E's internal flood protection measures. During these tours, the inspectors evaluated the physical condition of penetration seals, watertight doors, pump pedestals, curbs, and floor drains. The inspectors also reviewed data from completed surveillance testing procedure PT-14, "Circulating Water Pumps - High Water Trip Logic." Ginna's updated final safety analysis report, probabilistic safety assessment, and technical requirements manual were used as references.

b. Findings

No findings of significance were identified.

R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed RG&E's maintenance rule implementation for the following performance problems.

- Main steam header atmospheric relief valve 3411 functional failures
- Fire protection system check valve 9229 failure (containment isolation valve)

The inspectors reviewed associated corrective action program documents (ACTION reports 2001-0718, 1997-1987, and 1996-0144) and discussed the issues with RG&E engineering department personnel. This inspection verified that the selected systems were properly scoped within the maintenance rule and that the performance problems were properly characterized. Additionally, the inspectors verified that RG&E established reasonable goals, when required, and appropriately monitored system performance against the established goals and/or performance criteria. Information from Ginna's

maintenance rule database and NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," were used as references.

b. Findings

No findings of significance were identified.

R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors evaluated the effectiveness of RG&E's maintenance risk assessments required by paragraph a(4) of 10 CFR 50.65. This inspection included discussions with control room operators and scheduling department personnel regarding the use of RG&E's online risk monitoring software. The inspectors reviewed equipment tracking documentation, daily work schedules, and performed plant tours to gain reasonable assurance that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that RG&E's risk management actions, for both planned and emergent work, were consistent with those described in procedure IP-PSH-2, "Integrated Work Schedule Risk Management." Risk assessments for the following out of service systems, structures, and/or components were reviewed.

- Power range nuclear instrument channel N-42 and B hydrogen recombiner (July 26)

The inspectors reviewed RG&E's controls associated with the following emergent work activities.

- WO 20102931 Clean service water system strainers due to lake grass intrusion
- WO 20103048 Repair B emergency diesel generator fuel oil booster pump leak

b. Findings

No findings of significance were identified.

R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations to determine if RG&E properly justified system operability.

- Intermediate range nuclear instrument channel N35 current reduced by 10% (ACTION report 2001-0745)
- Service water system pipe wall thinning downstream of valve 4619 (ACTION report 2001-1205)

This inspection included discussion with plant personnel and reviews of applicable technical specifications and design bases information.

b. Findings

No findings of significance were identified.

R19 Post Maintenance Testing

a. Inspection Scope

The post maintenance tests for the following work orders (WO) were reviewed to verify that RG&E appropriately demonstrated the affected system's ability to perform its intended safety function, as described in Ginna's technical specifications and updated final safety analysis report.

- WO 20001757 Replace power range nuclear instrument N41 gain potentiometer
- WO 20003562 Replace power range nuclear instrument N44 power supply
- WO 20103015 Replace A emergency diesel generator fuel oil booster pump

The inspectors witnessed the performance of the post maintenance test and/or reviewed the test data. Additionally, the inspectors verified that RG&E incorporated guidance from applicable vendor manuals, where appropriate.

b. Findings

No findings of significance were identified.

R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed the performance and/or reviewed test data for the following activities to verify that the tests demonstrate the associated system's functional capability and operational readiness.

- CPI-AXIAL-N41 Calibration of power range nuclear instrument channel N41
- RE-10.4 Incore flux map data reduction and review
- PT-9.1.16/17 Undervoltage protection testing of 480 volts safeguards buses 16 and 17

This inspection also verified that test acceptance criteria accurately reflected the system's design information. Applicable portions of Ginna's technical specifications and updated final safety analysis report were used as references.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Occupation Radiation Safety [OS]

OS2 ALARA Planning and Controls

a. Inspection Scope

The inspectors conducted the following activities to determine the effectiveness of RG&E's administrative, operational, and engineering controls to minimize and equalize personnel exposure for tasks conducted during power operations.

The inspectors reviewed pertinent information regarding cumulative exposure history, current exposure trends, and ongoing activities in order to assess RG&E's effectiveness in establishing exposure goals, and in keeping actual exposure as low as is reasonably achievable (ALARA). Included in this review, were discussions with the site radiation protection manager regarding a recent management initiative to lower the annual challenge exposure goal from 18 person-rem to 13 person-rem, based on the current positive performance trend in minimizing worker dose.

The inspectors reviewed the effectiveness of exposure controls specified in ALARA reviews (AR) and in progress job reviews for selected work activities. The actual cumulative exposure was compared with the estimated exposure and evaluated using the criteria contained in the NRC's Significant Determination Process. Jobs that were reviewed included containment entries at power (AR01-0052), mechanical maintenance (AR01-0064), radiation protection coverage (AR01-0066), operational valve line-ups (AR01-0069), routine maintenance (AR01-0073), and radwaste handling activities (AR01-0100).

Independent radiation surveys were performed in areas of the auxiliary building and intermediate building (hot side) to confirm the accuracy of posted survey results and assess the adequacy of radiation work permits (RWP), ALARA reviews, and associated controls. Keys to technical specification locked high radiation areas were inventoried and these areas were verified to be secured and posted during plant tours.

Individual exposure records were reviewed for completed tasks and for those currently in progress. Included in this review were exposure records for a declared pregnant worker, maintenance personnel, and radiation protection technicians.

The inspectors observed various jobs in progress to evaluate the adequacy of the radiation work permits, and interviewed workers to determine their knowledge of the associated radiological controls. Jobs that were observed included workers handling and diluting a 20 millicurie Technetium-96 source (July 31, 2001), mechanics removing and installing a manual isolation valve to the concentrated holding tank (on August 1,

2001), workers removing insulation from boric acid evaporator piping (on August 1, 2001), and technicians performing a periodic test (PT-33A) on the A spent fuel pool cooling pump (on August 2, 2001).

The effectiveness of various management controls for monitoring and controlling personnel exposure was evaluated by reviewing recent radiation protection technician performance observation reports, management tour observation reports, quality assurance surveillance reports, and self assessment 2001-0018, "Radiation Protection Program Annual Review."

The inspectors reviewed recent technical evaluations regarding implementation of various engineering and operational controls designed to minimize worker dose. Included in this review were plant change request (PCR 2000-0052) that approved making temporary shielding into permanent plant installations, and the technical justification for extending the diagnostic monitoring period from monthly to quarterly for the reactor compartment cooling fan units.

The inspectors reviewed recent ACTION reports relating to the control of personnel exposure and work activities to determine if the issue was identified in a timely manner and that appropriate actions were taken to evaluate and resolve the issue. The regulatory significance of each issue was also evaluated. Included in this review were ACTION reports 2001-0683, 0777, 0778, 0779, 0990, 0982, 1185, 1242, 1280, and 1370.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors verified the accuracy and completeness of RG&E's data for the reactor coolant system (RCS) activity and leak rate performance indicators for the period of October 2000 through June 2001. The inspectors reviewed RCS activity measurements in the chemistry department database and completed daily surveillance calculations of RCS leak rate.

The inspectors also reviewed the implementation of RG&E's occupational exposure control effectiveness performance indicator program. Specifically, the inspectors reviewed corrective action program records for occurrences involving locked high radiation areas, very high radiation areas, and unplanned personnel exposures since the last inspection against the applicable criteria specified in NEI 99-02, Revision 1, "Regulatory Assessment Performance Indicator Guideline," to verify that all occurrences that met the NEI criteria were recognized and reported.

b. Findings

No findings of significance were identified.

OA6 Meetings

a. Exit Meeting Summary

On August 17, 2001, the inspectors presented their overall findings to members of RG&E management led by Dr. R. Mecredy. RG&E management acknowledged the findings presented and did not contest any of the inspectors' conclusions. No proprietary information was identified.

b. NRC Region I Management Visit

On July 18, 2001, Mr. J. Wiggins, Deputy Regional Administrator, and Mr. A. Blough, Director, Division of Reactor Projects, conducted a tour of the Ginna facility and met with members of RG&E management.

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

a. Key Points of ContactRG&E

| | |
|---------------|---|
| P. Bamford | Primary Systems and Reactor Engineering Manager |
| R. Biedenbach | Safety/Fire Coordinator |
| M. Flaherty | Configuration Support Manger |
| B. Flynn | Scheduling Manager |
| R. Forgensi | Operational Review |
| G. Graus | I&C/Electrical Engineering Manager |
| J. Hotchkiss | Mechanical Maintenance Manager |
| G. Joss | ISI/IST Coordinator |
| R. Mecredy | VP, Nuclear Operations |
| F. Mis | Acting Radiation Protection and Chemistry Manager |
| T. Plantz | Maintenance Systems Manager |
| R. Ploof | Balance of Plant Systems Engineering Manager |
| P. Polfleit | Corporate Emergency Planner |
| R. Popp | Production Superintendent |
| R. Teed | Nuclear Security Supervisor |
| J. Wayland | I&C/Electrical Maintenance Manager |
| T. White | Operations Manager |
| J. Widay | VP, Plant Manager |
| G. Wrobel | Nuclear Safety & Licensing Manager |
| J. Zulawski | Performance Monitoring |

b. List of Items Opened, Closed and Discussed

None