

May 7, 2001

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

SUBJECT: R. E. GINNA - NRC INSPECTION REPORT 05000244/2001-002

Dear Dr. Mecredy:

On March 31, 2001, the NRC completed an inspection of your R. E. Ginna facility. The enclosed report documents the inspection findings which were discussed on April 11, 2001, with Mr. J. Widay 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. 05000244  
License No. DPR-18

Enclosure: Inspection Report 05000244/2001-002

Attachment (1) Supplemental Information

Dr. Robert C. Mecredy

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cc w/encl:

P. Wilkens, Senior Vice President, Generation

P. Eddy, Electric Division, Department of Public Service, State of New York

C. Donaldson, Esquire, State of New York, Department of Law

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REGION I

Docket No: 05000244  
License No: DPR-18

Report No: 05000244/2001-002

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

Facility: R. E. Ginna Nuclear Power Plant

Location: 1503 Lake Road  
Ontario, New York 14519

Dates: February 11, 2001 through March 31, 2001

Inspectors: C. R. Welch, Acting Senior Resident Inspector  
W. A. Cook, Senior Project Engineer  
D. M. Silk, Senior Emergency Preparedness Inspector  
S. K. Chaudhary, Division of Reactor Safety  
L. M. Cline, Division of Reactor Safety

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

## SUMMARY OF FINDINGS

IR 05000244-01-002, on 02/11-03/31/2001; Rochester Gas & Electric; R. E. Ginna Nuclear Power Plant.

The inspection was conducted by resident inspectors and regional specialists. This inspection identified no significant findings. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

### A. Inspector Identified Findings

No findings of significance were identified.

## Report Details

### **SUMMARY OF PLANT STATUS**

Ginna began the period at full power. On March 3, 2001, operators reduced power to less than 50 percent for planned maintenance. On March 5, shortly after achieving full power, the operators performed a rapid load reduction to less than 50 percent power, due to the impending failure of the A circulating water pump exciter motor upper bearing. Full power operation resumed on March 6 and continued through the end of the inspection period.

#### **1. REACTOR SAFETY Initiating Events, Mitigating Systems, and Barrier Integrity [Reactor - R]**

##### R04 Equipment Alignment

###### b. Inspection Scope

The inspectors performed a complete walkdown of accessible portions of the safety injection (SI) system. Partial walkdowns were completed for the following system trains while their redundant trains were out of service for maintenance:

- Standby Auxiliary Feedwater trains D and E.
- Turbine Driven Auxiliary Feedwater train C.

These inspections verified that key valves and electrical circuit breakers were properly aligned in accordance with station procedures and drawings. During the walkdowns, the inspectors also evaluated the material conditions and general housekeeping of the systems and adjacent spaces. Ginna's updated final safety analysis report, technical specifications, and probabilistic safety assessment were used as references. The inspectors also sampled RG&E's corrective actions associated with Action Report (AR) Nos. 1999-0763, 1999-1018, 1999-0883, and 2001-0020.

###### b. Issues and Findings

No findings of significance were identified.

##### R05 Fire Protection

###### a. Inspection Scope

The inspectors reviewed PT-13, "Fire pump operation and system alignment," which was completed on March 20. The inspectors also 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:

- Screen house
- Standby auxiliary feedwater building
- Emergency diesel generator rooms
- Auxiliary building intermediate level

b. Issues and Findings

No findings of significance were identified.

R06 Flood Protection Measures

a. Inspection Scope

The inspectors reviewed RG&E's flood protection measures as described in station operating, alarm response, and emergency procedures for the areas listed below. For the locations identified as risk significant in the Ginna Probabilistic Safety Assessment (PSA) and updated final safety analysis report, the inspectors completed a walkdown to visually assess the condition of the penetration seals, watertight doors/barriers, pump pedestals, curbs, and floor drains.

- Turbine building
- Auxiliary building
- Intermediate building
- Service building
- Emergency diesel generator building

b. Issues and Findings

No findings of significance were identified.

R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed test data acquired per procedure PT-60.8, "A Spent Fuel Pool Heat Exchanger Thermal Performance Test;" and the supporting design analysis DA-ME-2000-098 (Rev. 0) to verify that the A spent fuel pool heat exchanger demonstrated the system's functional capability and operational readiness. The inspectors discussed the testing and analytical methodology and results with the responsible engineer.

b. Issues and Findings

No findings of significance were identified.

R11 Licensed Operator Requalification

a. Inspection Scope

On February 19, 2001, the inspectors observed and evaluated a simulator exam to assess training effectiveness and the operating crew's performance against established training standards. The inspectors reviewed the evaluators' critique and verified that the simulator's board configuration matched that of the actual control room.

b. Issues and Findings

No findings of significance were identified.

R12 Maintenance Rule Implementation

a. Inspection Scope

Maintenance Effectiveness

The inspectors reviewed RG&E's maintenance rule implementation for the performance problems listed below. This inspection evaluated system scoping, performance criteria/goal monitoring, and problem classification. Additionally, the inspectors observed the maintenance rule expert panel meeting held on March 22.

- Containment recirculation fan cooler and charcoal filter trains CTV01, CTV02, CTV03, and CTV04. (AR Nos. 00-0932, 00-0621, 00-1699, 01-0032, 00-0188, 01-0045, and 01-0048)
- Fire protection barriers train FPS06. (AR Nos. 00-1360, 00-0618, and 99-0843)
- Air ejector monitor RM-15A train RMS05 and containment vent monitor RM-10A/11/12 train RMS02. (AR Nos. 01-0233, 01-0250, and 01-0261)
- Intermediate range channel N-35 train NIS04. (AR Nos. 00-1637, 00-1632, and 00-1620)

Periodic Evaluation

The inspector reviewed RG&E's periodic evaluations required by 10 CFR 50.65 (a)(3) to verify that structures, systems, and components (SSCs) within the scope of the maintenance rule were included in the evaluations and that balancing of reliability and unavailability had been given adequate consideration.

The inspector selected the safety significant systems that were in (a)(1) status and verified that: (1) goals and performance criteria were appropriate; (2) industry operating experience was considered; (3) corrective action plans were effective; and, (4) performance was being effectively monitored. As of March 1, 2001, there were nine SSC in (a)(1) status. The inspector also reviewed RG&E's assessment of the balance between reliability and availability for the following areas:

- Plant level performance criteria for unplanned scrams (PLPC03)
- Fire protection barriers (FPS06)
- Containment system (CTV02)
- Radiation monitoring system (CBV02)
- Safety assessment system/power plant computer system, SAS/PPCS, (SAS01 A&B and SAS02 A&B)



- Instrument air (AIS02)
- Main steam supply header (MSS01)

The inspector reviewed the following (a)(2) high safety significant systems to verify that performance was acceptable:

- Control building HVAC (CBV03)
- Reactor protection system (RPS06)

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/or 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 components were reviewed:

- March 19, 2001 - Circuit 767 off-site power, B service water pump breaker, and the B train of auxiliary feedwater.
- March 1, 2001 - Emergent work for the A residual heat removal pump breaker failure.

b. Issues and Findings

No findings of significance were identified.

R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

On March 5, 2001, control room operators performed a rapid load reduction to less than 50 percent power. The reduction in power was initiated to allow the A circulating water pump to be secured due to the imminent failure of the pump's exciter motor upper bearing. The loss of one of the two operating circulating water pumps above 50 percent power would have required the operators to initiate a manual reactor plant trip.

The inspectors reviewed control room logs, selected plant computer printouts, and AP-TURB-5, "Rapid Load Reduction," and interviewed several of the control room operators.

b. Issues and Findings

No findings of significance were identified.

R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations to determine if system operability had been properly justified:

- AR 2001-0040 DB breakers Amptector units.
- AR 2001-0333 LQ-428 and FQ-474 channel RPS power supplies out of tolerance band.
- AR 2001-0334 FM-474 multiplier divider outside tolerance band.
- AR 2000-0959 MOV-871A/B timing not within accident analysis assumption.

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

b. Issues and Findings

No findings of significance were identified.

R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the post maintenance tests for the below listed work orders (WOs) to verify that RG&E appropriately demonstrated the components' ability to perform their intended safety function. The inspectors used the Technical Specifications, Updated Final Safety Analysis Report, and applicable station procedures and systems descriptions to identify the appropriate testing requirements for the work activities performed. The inspector ensured that the post maintenance testing satisfied applicable requirements of 10 CFR 50, Appendix B, and the Ginna Quality Assurance Program.

- WO 20003385 Replace nitrogen header inlet check valve 9004 to B atmospheric relief valve.
- WO 20100235 Replace main control board (MCB) switch for residual heat removal (RHR) pump B.
- WO 20003602 Replacement of turbine trip solenoid valve 5501S1.

b. Issues and Findings

No findings of significance were identified.

R22 Surveillance Testinga. Inspection Scope

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

- PT-12.2 Emergency Diesel Generator B (Monthly)
- T-18A Intercept and Reheat Valve Test
- T-18B Turbine Main Steam Stop Valve Test

b. Issues and Findings

No findings of significance were identified.

R23 Temporary Plant Modificationsa. Inspection Scope

The inspectors reviewed the temporary modifications (TMODs) installed in the plant as of March 24, 2001, with emphasis on TMOD Nos. 2001-0004 (temporary fuel oil tank for the security diesel generator) and 2001-0003 (main condensate system sample stations). The inspection was accomplished by review of the TMOD packages, a walkdown of selected TMODS, verifying selected drawings had been up-dated, and by review of selected 10 CFR 50.59 evaluations.

b. Issues and Findings

No findings of significance were identified.

**Emergency Preparedness [EP]**EP4 Emergency Action Level Revisionsa. Inspection Scope

The inspector conducted an in-office review of RG&E's submitted changes for the following Emergency Plan documents to determine if the changes decreased the effectiveness of the Emergency Plan:

- EPIP 1-0, Ginna Station Evaluation and Classification (Rev 26).
- EPIP 2-1, Protective Action Recommendations (Rev 18 ).

- EPIP 5-1, Offsite Emergency Response Facility and Equipment Periodic Inventory Checks and Tests (Rev 20).
- EPIP 5-2, Offsite Emergency Response Facility and Equipment Periodic Inventory Checks and Tests (Rev 23).
- Emergency Action Level (EAL) Technical Basis Document (Rev 26).

b. Issues and Findings

No findings of significance were identified

**4. OTHER ACTIVITIES [OA]**

OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors verified the completeness and accuracy of the safety system unavailability performance indicator (PI) for the emergency alternating current (AC) power systems for the third and fourth quarter of 2000. This inspection consisted of discussions with plant personnel and a review of unavailability records, operator logs, action reports, work orders, and completed surveillance test procedures.

b. Issues and Findings

No findings of significance were identified.

OA6 Meetings

a. Exit Meeting Summary

On April 11, 2001, the inspectors presented their overall findings to members of RG&E management led by Mr. J. Widay. RG&E management acknowledged the findings presented and did not contest any of the inspectors' conclusions. No proprietary information was identified.

**ATTACHMENT 1****PARTIAL LIST OF PERSONS CONTACTED**RG&E

J. Widay	VP, Plant Manager
P. Bamford	Primary Systems and Reactor Engineering Manager
R. Biedenbach	Safety/Fire Coordinator
M. Flaherty	Configuration Support Manger
B. Flynn	Scheduling Manager
G. Graus	I&C/Electrical Engineering Manager
J. Hotchkiss	Mechanical Maintenance Manager
G. Joss	ISI/IST Coordinator
R. Marchionda	Nuclear Assessment Department Manager
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
J. Smith	Maintenance Superintendent
R. Teed	Nuclear Security Supervisor
J. Wayland	I&C/Electrical Maintenance Manager
T. White	Operations Manager
G. Wrobel	Nuclear Safety & Licensing Manager
J. Zapetis	MR/EPIX Coordinator
R. McMahon	Operating Experience Engineer
J. StMartin	Licensing Engineer
J. Sorrell	Admin Specialist

NRC

L. Scholl	Division of Reactor Safety
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**ITEMS OPENED AND CLOSED**

Opened/Closed - None

### LIST OF ACRONYMS USED

AC	Alternating Current
AR	Action Report
CFR	Code of Federal Regulations
EAL	Emergency Action Level
IMC	Inspection Manual Chapter
MCB	Main Control Board
MOV	Motor-operated Valve
MR	Maintenance Rule
NCV	Non-cited Violation
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
RG&E	Rochester Gas and Electric Corporation
RHR	Residual Heat Removal
RPS	Reactor Protection System
SDP	Significance Determination Process
SI	Safety Injection
SSC	Structure, System, and Components
TMOD	Temporary Modification
WO	Work Order

### LIST OF ADDITIONAL DOCUMENTS REVIEWED

Periodic Assessment of the R. E. Ginna Maintenance Rule Program for the period April 22, 1999 through October 19, 2000.

Periodic Assessment of the R. E. Ginna Maintenance Rule (MR) Program for the period November 1997 through April, 1999.

R. E. Ginna System Status Report - 4<sup>th</sup> Quarter 2000.

System Engineering Note Book Report identifying MR trends from January 1, 1998 to January 1, 2000.

System Engineering AR No. 2001-0032, dated March 21, 2001.

Quarterly Executive Summary Reports for the selected systems from 2<sup>nd</sup> quarter, 1999 to 3<sup>rd</sup> quarter 2000.

Goal Determination Forms (Form MR5), associated Action Reports, and Maintenance Rule Data Base.