

December 4, 2001

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

SUBJECT: R. E. GINNA - NRC INSPECTION REPORT 50-244/01-09

Dear Dr. Mecredy:

On November 10, 2001, the NRC completed an inspection of your R. E. Ginna facility. The enclosed report presents the results of that inspection. Preliminary findings were presented to Mr. J. Widay and other members of Rochester Gas and Electric Corporation (RG&E) management in an exit meeting on November 16.

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.

Since September 11, 2001, the R. E. Ginna facility has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to RG&E. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

Dr. Robert C. Mecredy

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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 50-244/01-09

Attachment 1: Supplemental Information

cc w/encl:

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-244

License No: DPR-18

Report No: 50-244/01-09

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

Facility: R. E. Ginna Nuclear Power Plant

Location: 1503 Lake Road  
Ontario, New York 14519

Dates: September 30 through November 10, 2001

Inspectors: H. K. Nieh, Senior Resident Inspector  
C. R. Welch, Resident Inspector  
W. A. Cook, Senior Project Engineer  
T. A. Moslak, Health Physicist  
P. Bissett, Senior Operations Engineer  
J. Williams, Senior Operations Engineer  
D. Silk, Senior Emergency Preparedness Inspector

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

## SUMMARY OF FINDINGS

IR 05000244-01-09, 09/30-11/10/2001; Rochester Gas & Electric; R. E. Ginna Nuclear Power Plant. Resident Operations Report.

The inspection was conducted by resident inspectors, and regional specialists in radiation protection, operator licensing, and emergency planning.

A. Inspector Identified Findings

None

B. Licensee Identified Violations

A violation of very low significance, which was identified by RG&E, has been reviewed by the inspector. The licensee's planned corrective actions appear reasonable. The violation is listed in section 4OA7 of this report.

## Report Details

### **SUMMARY OF PLANT STATUS**

Ginna began the period at full power and remained there throughout the inspection period.

#### **1. REACTOR SAFETY**

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

#### R04 Equipment Alignment

##### a. Inspection Scope

The inspectors performed a partial walkdown of the C and D trains of Standby Auxiliary Feedwater (AFW) to verify their operability while redundant trains of AFW were out of service. Key system valves and electrical circuit breakers were verified properly aligned to ensure proper in-service or standby configurations were met. During the walkdowns, the inspectors also evaluated material conditions and general housekeeping of the systems and adjacent spaces. Ginna's technical specifications, updated final safety analysis report, alignment procedure S-30.5, "Standby Auxiliary Feedwater Pump Valve and Breaker," and plant drawings were referenced.

##### b. Findings

No findings of significance were identified.

#### R05 Fire Protection

##### a. Inspection Scope

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

- A emergency diesel generator room
- B emergency diesel generator room
- Turbine building mezzanine - electrical switchboard area

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.

##### b. Findings

No findings of significance were identified.

R07 Heat Sink Performance

a. Inspection Scope

The inspectors observed portions of the A component cooling water heat exchanger (EAC01A) pre and post cleaning inspections and eddy current testing. The number of plugged heat exchanger tubes was verified less than allowable for operability. Completed maintenance procedure CMP-10-04-EAC01A was reviewed and the results of the eddy current testing and video inspection were discussed with the cognizant engineering personnel. The heat exchanger cleaning and inspection and thermal performance test frequencies were evaluated for acceptability.

b. Findings

No findings of significance were identified.

R11 Licensed Operator Requalification

a. Inspection Scope

Quarterly Review:

On October 17, 2001, the inspector observed and reviewed simulator job performance measures (JPMs) to assess training effectiveness and individual operator performance against established training standards. The inspector also reviewed the evaluator's critique and compared the simulator's board configuration against that of the actual control room. The inspector reviewed performance of JPM No. J061.001, "Line-up and Initiate Feed to Both Steam Generators Using Standby AFW," and No. J340.005, "Event Classification."

Biennial Review:

A review was conducted of recent operating history documentation found within NRC inspection reports, licensee event reports, RG&E's corrective action program, and the most recent NRC plant issues matrix (PIM). The inspectors also reviewed specific events from RG&E's corrective action program which indicated possible training deficiencies, to verify that they had been appropriately addressed. The senior resident inspector was also consulted for insights regarding licensed operators' performance.

The inspection activities were performed using NUREG 1021, Rev. 8, "Operator Licensing Examination Standards for Power Reactors," Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," Appendix A "Checklist for Evaluating Facility Testing Material" and Appendix B "Suggested Interview Topics."

The operating tests for the week of October 15, 2001 were reviewed for quality and performance.

The results of the annual operating tests for years 2000 and 2001 and the written exam for 2001 were reviewed for quality, performance and grading. An assessment of whether failure rates are consistent with the guidance of NUREG-1021, Revision 8, "Operator Licensing Examination Standards for Power Reactors" and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)," was also performed. The SDP review verified the following:

- Crew pass rates were greater than 80%. (Pass rate was 88%)
- Individual pass rates on the written exam were greater than 80%. (Pass rate was 94%)
- Individual pass rates on the job performance measures of the operating exam were greater than 80%. (Pass rate was 100%)
- More than 75% of the individuals passed all portions of the exam. (88% of the individuals passed all portions of the examination)

Observations were made of the dynamic simulator exams and job performance measures (JPM) administered during the week of October 15, 2001. These observations included facility evaluations of crew and individual performance during the dynamic simulator exams and individual performance of 5 JPMs.

The remediation plans for a crew/individual's failure and a written failure were reviewed to assess the effectiveness of the remedial training.

One SRO refueling license activation was reviewed to ensure that 10 CFR 55.53 license conditions and applicable program requirements were met.

Operators, instructors and training/operation's management were interviewed for feedback on their training program and the quality of training received.

Simulator performance and fidelity were reviewed for conformance to the reference plant control room.

A sample of records for requalification training attendance, program feedback, reporting, and medical examinations were reviewed for compliance with license conditions, including NRC regulations.

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 for the troubleshooting and repair of the technical support center battery charger (work order 20102437) and for the rod control system urgent failure experienced on October 22. 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. Risk management actions, for both planned and/or emergent work, were verified to be consistent with those described in procedure IP-PSH-2, "Integrated Work Schedule Risk Management." The inspectors observed PORC meeting 2001-044 during which PORC approved entering an orange risk condition for the instrument air system, to support replacement of a failed gasket on the service air compressor discharge check valve.

b. Findings

No findings of significance were identified.

R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

The inspectors reviewed the operators performance in response to a failure of MQ-400E (TWINCO Fast Response AC Regulator). The failure resulted in a loss of instrument bus power to a number of plant components and generated numerous main control board alarms. This inspection included discussion with the on-shift operators, and review of operator logs, plant computer data, PORC minutes, applicable alarm (AR) and equipment (ER) response procedures, maintenance procedure CME-38-01-MQ400E, electrical diagrams, and technical specification tracking documents. The updated final safety analysis report and technical specifications (TS) were reviewed. RG&E's compliance with technical specifications and reporting requirements was evaluated.

b. Findings

No findings of significance were identified.

R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the below listed operability evaluations, conducted in accordance with IP-CAP-1, Attachment 1, "Operability and Past Operability Determination Checklist," to ensure that RG&E properly justified system operability. This inspection included discussions with plant personnel and reviews of applicable technical specifications and design bases information.

- ACTION Report No. 2001-1802, revision 1 - Technical Support Center Battery Charger (BYCTSC) and Battery (BYRYTSC).
- ACTION Report No. 2001-1757 - Common Mode Failure of the Service Water Pump Motor Leads.
- ACTION Report No. 2001-1870 - A Emergency Diesel Generator Exceeds Acceptance Criteria.

b. Findings

No findings of significance were identified.

R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following work orders (W.O.) and associated post maintenance tests (PMTs) to verify that RG&E had appropriately demonstrated the components' ability to perform its intended safety function, as described in Ginna's technical specifications and updated final safety analysis report, prior to its return to service.

- W.O. 20103585      Replace lugs on service water pump motors A,C,D.
- W.O. 20103571      B service water pump failure.
- W.O. 19902677      Inspect/Replace isolator relays for B zirc guide tube trip.

The inspectors witnessed the performance of the post maintenance test and/or reviewed the test data. The updated safety analysis report, technical specifications, system design information, and related drawings were reviewed to assess the adequacy of the PMT and specified acceptance criteria.

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.

- PT-2.5.4              Air-Operated Valves, Quarterly Surveillance, Controlled Intermediate Building.
- PT-13.4.16          Flood Valve Testing - Suppression System No. 501, Auxiliary Building Basement Pre-Action System.

- PT-13.4.17 Multimatic Valve Testing - Suppression System No. 503, Auxiliary Building Mezzanine Level West Pre-Action System.
- PT-13.4.18 Flood Valve Testing - Suppression System No. 504, Auxiliary Building Mezzanine Pre-Action System.

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.

R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the current temporary modifications for their potential to adversely impact the availability, reliability, or functional capability of the affected systems.

b. Findings

No findings of significance were identified.

**2. Emergency Preparedness [EP]**

EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

The inspector conducted an in-office review of changes, submitted by RG&E, to the emergency plan implementing procedures (EPIPs) to determine if the changes had decreased the effectiveness of the emergency plan, as stated in 10 CFR 50.54(q). A thorough review was conducted of documents related to the risk significant planning standards (RSPS), such as classifications, notifications and protective action recommendations. A cursory review was conducted for non-RSPS documents.

b. Findings

No findings of significance were identified.

EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed two simulator training scenarios and the subsequent critique to evaluate RG&E's performance in emergency preparedness drill/training. This inspection focused on the risk significant activity of making timely emergency action level (EAL) classifications and notifications. The inspectors reviewed NEI 99-02 to verify that the training exercise was of appropriate scope to be included in the performance indicator (PI) statistics.

b. Findings

No findings of significance were identified.

**3. RADIATION SAFETY**

**Occupation Radiation Safety [OS]**

OS3 Radiation Monitoring Instrumentation

a. Inspection Scope

During the period October 1 - 5, 2001, the inspector conducted the following activities to evaluate the operability and accuracy of radiation monitoring instrumentation and the adequacy of the respiratory protection program:

The inspector observed technicians performing radioactive source and functional checks on a variety of instrumentation including the whole body counter, personnel contamination monitors, small article monitors, and a hand/foot contamination monitor.

The inspector reviewed the calibration records for selected electronic dosimeters (RADOS 51), the whole body counting system, installed area monitors (Channels 1 through 9), three (3) personnel contamination monitors, two (2) portal monitors, and two (2) radio-chemistry laboratory (Germanium) counting systems.

The inspector observed the calibration of a portable survey instrument (RO-20), a personnel air sampler (Gil-Air 5), and the high range noble gas channel of the condenser air ejector monitor (R-15A).

The inspector reviewed the operating procedure and current calibration source activity/dose rate determinations for the Shepard Model 89 calibrator used for instrument calibrations and discussed with cognizant technicians safety interlock tests and radiation safety practices.

The inspector evaluated the adequacy of the respiratory protection program regarding the issuance and maintenance of self-contained breathing apparatus (SCBA). Training and qualification records for licensed operators, required to wear SCBA's in the event of an emergency, were reviewed. Three (3) SCBA's staged for use in the Control Room and two (2) SCBA's staged at the

radiological controlled area access point were physically checked and the maintenance and testing records for other selected SCBA's were reviewed.

The inspector reviewed ACTION reports related to radiation instrumentation, SCBA's, and the monitoring of plant radiation levels to determine if problems were identified in a timely manner and appropriate corrective actions were taken to resolve the related issues. Included in this review were ACTION report nos. 01-0105, 01-0384, 01-1280, 01-1417, 01-1636, 01-1638, 01-1773, and 01-1776.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES [OA]**

OA6 Meetings

a. Exit Meeting Summary

On November 16, the inspectors presented their overall findings to members of RG&E management led by Mr. J. Widay. RG&E management acknowledged the findings presented. No proprietary information was identified.

b. NRC/RG&E Management Meeting

On October 12, 2001, Commissioner Merrifield conducted a tour of the Ginna facility and met with senior plant managers and station personnel.

OA7 Licensee Identified Violations

The below listed finding of very low significance was identified by RG&E and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being treated as a Non-Cited Violation (NCV).

<u>NCV Tracking Number</u>	<u>Requirement Licensee Failed to Meet</u>
NCV 50-244/01-09-01	10CFR50, Appendix B, Criterion V, Instructions, Procedures, and Drawings requires in part, activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, and drawings. The replacement of the service water pump motors in 1996 - 1997 time frame was not accomplished using procedures with appropriate instructions.

## Attachment 1

## Supplemental Information

a. Key Points of ContactRG&E

P. Bamford	Primary Systems and Reactor Engineering Manager
S. Carter,	Senior Instructor
B. Everett,	Operations Supervisor
M. Flaherty	Configuration Support Manger
J. Hotchkiss	Mechanical Maintenance Manager
F. Maciuska,	Manager - Operations Training
R. Marchionda	Nuclear Assessment Department Manager
K. Masker,	Sr. Licensed Instructor
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
R. Watts	Nuclear Training Department Manager
J. Wayland	I&C/Electrical Maintenance Manager
T. White	Operations Manager
J. Widay	VP, Plant Manager

b. List of Items Opened, Closed, and DiscussedOpened/Closed

NCV 50-244/01-09-01	10CFR50, Appendix B, Criterion V, Instructions, Procedures, and Drawings - RG&E failed to provide appropriate instructions for the re lug all four service water pump motor leads following motor replacements.
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c. List of Documents Reviewed

EPIP 1-0, Ginna Station Event Evaluation and Classification, Rev 27  
 EPIP 1-1, Unusual Event, Rev 3  
 EPIP 1-2, Alert, Rev 4  
 EPIP 1-4, General Emergency, Rev 5  
 EPIP 1-5, Notifications, Rev 44, 45  
 EPIP 1-7, Accountability of Personnel, Rev 9  
 EPIP 1-9, Technical Support Center Action, Rev 20  
 EPIP 1-11, Survey Center Activation, Rev 22, 23  
 EPIP 1-12, Repair and Corrective Action Guidelines During Emergency Situations, Rev8  
 EPIP 2-2, Obtaining Meteorological Data and Forecasts and Their Use in Emergency  
 Dose Assessment, Rev 10, 11  
 EPIP 2-3, Emergency Release Rate Determination, Rev 13, 14  
 EPIP 2-4, Emergency Dose Projections - Manual Method, Rev 13  
 EPIP 2-5, Emergency Dose Projections Personal Computer Method, Rev 12, 13  
 EPIP 2-11, Onsite Surveys, Rev 15, 16, 17  
 EPIP 2-12, Offsite Surveys, Rev 18, 19, 20  
 EPIP 2-16, Core Damage Estimation, Rev 12  
 EPIP 2-18, Control Room Dose Assessment, Rev 13  
 EPIP 3-1, Emergency Operations Facility (EOF) Activation and Operations, Rev 17  
 EPIP 4-6, Joint Emergency News Center Activation, Rev 9  
 EPIP 4-7, Public Information Organization Staffing, Rev 17, 18  
 EPIP 5-1, Offsite Emergency Response Facilities and Equipment Periodic Inventory  
 Checks and Tests, Rev 22  
 EPIP 5-2, Onsite Emergency Response Facilities and Equipment Periodic Inventory  
 Checks and Tests , Rev 25, 26  
 EPIP 5-5, Conduct of Drills and Exercises, Rev 13  
 EPIP 5-7, Emergency Organization, Rev 33

d. List of Acronyms Used

EAL	Emergency Action Level
EIPs	Emergency Plan Implementing Procedures
JPM	Job Performance Measures
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PMTs	Post-Maintenance Tests
PORC	Plant Operational Review Committee
RG&E	Rochester Gas and Electric Corporation
RSPS	Risk Significant Planning Standard
SCBA	Self-Contained Breathing Apparatus
SDP	Significance Determination Process