

March 18, 2002

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 50-244/01-12

Dear Dr. Mecredy:

On February 16, 2002, the NRC completed an inspection of your R. E. Ginna facility. The enclosed report documents the inspection findings which were discussed on February 26, 2002, with Mr. Joseph Widay and other members of your staff.

The 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.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). On February 25, 2002, the NRC issued an Order to all nuclear power plant licensees, requiring them to take certain additional interim compensatory measures to address the generalized high-level threat environment. With the issuance of the Order, we will evaluate Rochester Gas and Electric Corporation compliance with these interim requirements.

Dr. Robert C. Mecredy

2

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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 50-244/01-12

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: 50-244/01-12

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

Facility: R. E. Ginna Nuclear Power Plant

Location: 1503 Lake Road  
Ontario, New York 14519

Dates: December 30, 2001 through February 16, 2002

Inspectors: C. R. Welch, Senior Resident Inspector (Acting)  
R. A. Fernandes, Senior Resident Inspector  
S. T. Barr, Senior Project Engineer  
T. A. Moslak, Health Physicist  
D. Silk, Senior Emergency Preparedness Inspector

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

## SUMMARY OF FINDINGS

IR 05000244-01-12, 12/30-02/16/2002; Rochester Gas & Electric; R. E. Ginna Nuclear Power Plant. Resident Inspector Report.

The inspection was conducted by resident inspectors and regional specialists in the radiation protection and emergency planning areas. 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/ASSESS/index.html>.

A. Inspector Identified Findings

None

B. Licensee Identified Violations

None

## Report Details

### **SUMMARY OF PLANT STATUS**

Ginna began the period at full power. A manual reactor trip was initiated on February 5, 2002, in response to failure of one of two main circulating water pumps. The unit was restored to full power the morning of February 7, following repairs to the A circulating water pump. The unit remained at full power 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 performed partial walkdowns of the spent fuel pool (SFP) cooling system while it was undergoing piping modifications to allow cross tying trains. The inspectors verified the adequacy of the isolation boundaries (i.e. tag outs) for the modification and checked the seismic qualification for the A train's interim piping configuration when placed in service during piping modification of the B train.

These inspections reviewed alignment of system valves and electrical circuit breakers to ensure proper in-service or standby configurations as described in plant procedures and drawings. During the walkdowns, the inspectors also evaluated material conditions and general housekeeping of the system and adjacent spaces.

###### b. Findings

No findings of significance were identified.

##### R05 Fire Protection

###### .01 Fire Protection Program Implementation

###### c. 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:

- Standby auxiliary feedwater building.
- Technical support center battery room.
- Technical support center diesel generator room.
- Technical support center inverter room.
- Relay room.
- Secondary hydrogen storage building.

Additionally, portions of surveillance procedure PT-13.11.4, "Gamewell Smoke Detector Testing Zone Z25 (STBY AUX Feed Area)," were observed and the completed test results reviewed.

b. Findings

No findings of significance were identified.

.02 Temporary Instruction (TI) 2515/146

a. Inspection Scope

NRC Inspection Manual Temporary Instruction (TI) 2515/146, "Hydrogen Storage Locations," was performed to verify RG&E's compliance with applicable fire protection codes and license commitments pertaining to potentially hazardous conditions created by the proximity of the hydrogen storage locations to risk-significant structures, systems, and components (SSCs).

b. Findings

Using the guidance of TI 2515/146, RG&E identified a number of instances where the facility was not in full compliance with the National Fire Protection Association code NFPA 50A; "Standard for Gaseous Hydrogen Systems at Consumer Sites." These non-conforming conditions were entered into the Ginna corrective action program, and where possible, immediate corrective actions were taken to restore compliance. Conditions where full compliance with NFPA code could not be promptly achieved were evaluated by RG&E and determined to be acceptable for continued plant operation, in accordance with the guidance of Generic Letter 91-18. The specific observations made by the licensee and inspector during this review will be forwarded to the NRC Office of Nuclear Reactor Regulation via separate correspondence. The inspection requirements of TI 2515/146 have been satisfied, this TI is closed.

R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed RG&E's maintenance rule implementation for the below listed items. This inspection evaluated system scoping, performance criteria/goal monitoring, and problem classification.

- Main control board annunciator failures: AR Nos. 2001-1138, 1146, 1373, and 1380.
- Main generator hydrogen leakage: AR Nos. 2001-0376, 1467, 1512, and 1513.
- High vibrations on main feedwater pump oil pump: AR Nos. 2001-0366 and 1153.
- Emergency diesel generator room sump pump failure: AR No. 2001-1486.

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 activities were reviewed:

- Main control board annunciator power supply replacements.
- Spent fuel pool modification.
- Various maintenance items scheduled for February 12, 2002.

b. Findings

No findings of significance were identified.

R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

On February 5, in response to the failure of the A main circulating water pump the control room operators manually tripped the reactor, in accordance with station procedure AP-CW.1, "Loss of a Circulating Water Pump." The inspectors observed and reviewed personnel performance during the unplanned manual reactor trip. This inspection verified that the operators' response was in accordance with station procedures through direct observation, interviews, and review of collected data obtained from plant logs and computer printouts.

b. Findings

No findings of significance were identified.



R15 Operability Evaluationsa. Inspection Scope

The inspectors reviewed the below listed plant changes to assess the impact on system operability. This inspection included discussions with plant personnel and reviews of applicable technical specifications and design bases information.

- PCR 2001-0047, removal of valve internals from the emergency diesel generator fuel oil transfer pump discharge check valves.
- Safety Evaluation No. 2001-0265, installation of temporary make-up pump for safety injection accumulator filling.

b. Findings

No findings of significance were identified.

R19 Post Maintenance Testinga. 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 nuclear instrumentation technical manual was used as a reference, in addition to station calibration procedures and instrument diagrams.

- WO No. 20101499, Install Hi & Lo voltage power supplies N-41.
- WO No. 20101500, Install Hi & Lo voltage power supplies N-42.
- WO No. 20200076, Replace Isolation Amplifier NM 302 N-44B.

b. 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 tests demonstrate the associated system's functional capability and operational readiness:

- PT-31, "Charging Pump Inservice Test," (pump C only).
- PT-22.2, "Personnel Hatch Door Seal Leak Rate Test."
- PT-2.7.1, "Service Water Pumps," (pump A only).

b. Findings

No findings of significance were identified.

R23 Temporary Plant Modifications

a. Inspection Scope

Temporary modification (TM) No. 2002-0002, "Defeat of Turbine Remote Latch Solenoid Valve 14529S," was reviewed and visually inspected by the inspectors to verify that the TM did not adversely affect the reliability or functional capability of the main turbine trip function.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Occupation Radiation Safety [OS]**

OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

During the period February 11-14, 2002, the inspector conducted a number of field activities to verify that the licensee was properly implementing physical and administrative controls for access to locked high radiation areas and other radiologically controlled areas, and that workers were adhering to these controls. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and the licensee's procedures.

Independent radiation surveys were performed in the Auxiliary Building and Intermediate Building (Hot Side) to confirm the accuracy of posted survey results, and to assess the adequacy of radiation work permits (RWP), associated controls, and area postings. Keys to Technical Specification Locked High Radiation Areas (TSLHRA) were inventoried and these areas were verified to have been properly secured and posted during plant tours.

The inspector reviewed the RWP's and associated radiation survey maps for the below listed jobs which were performed during the onsite inspection. The inspector observed selected aspects of these work activities and interviewed workers on their knowledge of the relevant RWP, electronic dosimetry set points, and job site radiological conditions.

- Heat tracing replacement on piping in the blender room (RWP No. 1036).
- Lubrication and inspection of the C charging pump vari-drive (RWP No. 1001).
- Lubrication of the A component cooling water pump motor bearings (RWP No. 1001).

The inspector reviewed pertinent information regarding cumulative exposure history for 2001, current exposure trends, and ongoing activities in order to assess RG&E's effectiveness in establishing exposure goals and controlling workers' dose. Included in this review, were discussions with the site ALARA Coordinator regarding controlling radiography operations for a recent spent fuel pool cooling system modification and preparations for the forthcoming refueling outage.

The inspector reviewed selected ACTION reports related to the implementation of the radiation protection program to evaluate the threshold for identifying performance problems, and the timeliness and effectiveness of the resulting corrective actions. These ACTION reports were reviewed against the criteria contained in 10CFR20, Technical Specifications, and site procedures to determine the regulatory significance of the identified problem. Included in this review were ACTION Report Nos. 02-0276, 01-2215, 01-2168, 01-2167, 01-2107, 01-2048, 01-1767, 01-1673, 01-1557, and 01-1527.

Additionally, in evaluating the effectiveness of RG&E's problem identification program, the inspector reviewed shift (Radiation Protection) technician logs, and Radiation Protection Technician Performance Observation records.

b. Findings

No findings of significance were identified.

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspector reviewed RG&E's Occupational Exposure Control Effectiveness Performance Indicator (PI) data to verify that all occurrences that met the Nuclear Energy Institute (NEI) reporting criteria were identified and reported. Specifically, the inspector reviewed ACTION Reports and associated documents for occurrences involving locked high radiation areas, very high radiation areas, and/or unplanned personnel exposures, for the period August 2001 to February 2002.

The inspector also reviewed the accuracy of the reported PI data for unplanned scrams per 7,000 critical hours, scrams with loss of normal heat removal, and unplanned power changes per 7,000 critical hours for calendar year 2001. The 2001 Monthly Operating Reports and NRC inspection reports were reviewed, in addition to computer database searches of Licensee Event Reports, control room operator logs (for power changes), and ACTION Reports.

b. Findings

No findings of significance were identified.

OA5 Other

a. URI 50-244/01-04-01, OSC Requirements

During the June 6, 2001 exercise, inspectors identified items in the operations support center (OSC) and OSC satellite office that were not in literal compliance with NUREG-0696, Functional Criteria for Emergency Response Facilities (AR 2001-1023). The inspectors reviewed RG&E's assessment of these discrepancies to ensure that the intent of NUREG-0696, was satisfied with respect to communications links being available (dedicated telephone extensions and radios) and that operations management located in the TSC (immediately adjacent to the OSC) had a dedicated telephone line to the control room. The inspector verified that there were several telephone lines, and radio communications capability, available to communicate with the OSC satellite. Since there were no significant negative performance issues associated with these items and because RG&E satisfied the intent of NUREG-0696, this unresolved item **(URI 50-244/01-04-01)** was determined to be of minor significance and is closed.

b. URI 50-244/01-04-02, EP Performance Indicator (PI) Accuracy

Review of RG&E's PI data for Emergency Response Organization (ERO) Drill Participation, and Drill and Exercise Performance (DEP), in June 2001, identified that RG&E had not followed the guidance in NEI 99-02, Revision 1, Regulatory Assessment Performance Indicator Guide. Specifically, RG&E had inappropriately credited drill participation to ERO members who made classifications, notifications, and PARs without counting those efforts in the DEP PI data. RG&E has since reviewed the effected ERO positions and made the appropriate adjustments to the DEP PI to include the previously omitted data. The adjusted DEP PI data did not cause the PI to change (leave the licensee response band, GREEN). Based upon the absence of a resulting PI color change and RG&E conforming to NEI 99-02 PI data collection and reporting guidance, unresolved item **URI 50-244/01-04-02** is closed.

c. INPO Plant Assessment Report

The inspectors reviewed the Institute of Nuclear Power Operations (INPO) final report documenting the INPO staff's April 2001 plant evaluation of Ginna.

OA6 Meetings

a. Exit Meeting Summary

On February 26, 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.

## Attachment 1

## Supplemental Information

a. Key Points of ContactRG&E

P. Bamford	Primary Systems and Reactor Engineering Manager
J. Bement	Foreman, Radiation Protection
R. Biedenbach	Safety/Fire Coordinator
D. Filkins	ALARA technician, Contractor
B. Flynn	Scheduling Manager
R. Gasper	Foreman, Radio-chemistry
R. Gillette	Radiation Protection Technician
K. Gould	Senior Health Physicist
J. Hotchkiss	Mechanical Maintenance Manager
G. Jones	Radio-chemist, Primary Systems
G. Joss	ISI/IST Coordinator
R. LaPoint	Mechanical Maintenance Technician
M. Layton	ALARA Technician
N. Leoni	Quality Assessment Coordinator
C. Meighan	ALARA Coordinator
F. Mis	Acting Radiation Protection and Chemistry Manager
M. Olson	Mechanical Maintenance Technician
R. Ploof	Balance of Plant Systems Engineering Manager
P. Polfleit	Corporate Emergency Planner
R. Popp	Production Superintendent
R. Puddu	Radiation Protection Technician
J. Raike	Lead Shift Radiation Protection Technician, Primary Chemistry
R. Scarrett	Auxiliary Operator
J. Smith	Maintenance Manager
J. St. Martin	Licensing Engineer
J. Wayland	I&C/Electrical Maintenance Manager
T. White	Operations Manager
J. Widay	VP, Plant Manager

b. List of Items Opened, Closed, and DiscussedOpened

None

Closed

URI 50-244/01-04-01, OSC Requirements  
 URI 50-244/01-04-02, EP Performance Indicator (PI) Accuracy

c. List of Documents Reviewed

A-1, Revision 63, Radiation Control Manual  
 A-3, Revision 46, Containment Vessel Access Requirements  
 A-1.6, Revision 19, Station ALARA Committee  
 A-1.8, Revision 14, Radiation Work Permits  
 A-1.1, Revision 39, Access Control to Locked High Radiation and Very High Radiation Areas  
 A-1.6.1, Revision 26, ALARA Job Reviews,  
 IP-CAP-1, Revision 12, Abnormal Condition Tracking Initiation or Notification (ACTION) Report  
 IP-LPC-8, Revision 1, NRC Performance Indicator  
 RP-RPA-PERFORMANCE-IND, Revision 0, Radiation Protection Performance Indicator Guidelines  
 RP-JC-RADIOGRAPH, Revision 9, Support of Radiography Operations  
 RP-EXP-EXT-LIMIT, Revision 10, Determining External Exposure Control Levels  
 RP-SUR-POST, Revision 0, Radiological Postings and Boundary Control  
 RP-SUR-RADIATION, Revision 0, Performance of Radiation Surveys  
 RP-SUR-PERS-DECON, Revision 16, Personnel Contamination  
 RP-JC-JOB COVERAGE, Revision 0, Job Coverage  
 RP-RP-SUR-HOTPART, Revision 0  
 RP-JC-HOTPART-ASSESS, Revision 7, Hot Particle Dose Assessment  
 RP-SUR-CONTAM, Revision 0, Performance of Contamination Surveys  
 RP-ALA-REVIEW, Revision 6, ALARA Job Review Preparation  
 RP-ALA-SHIELD, Revision 9, Control of Temporary Lead Shielding  
 RP-SUR-LABEL, Revision 0, Labeling and Control of Radioactive Material  
 Quality Assurance Surveillance Report (SQUA-2001-007-AZP) Worker Practices when egressing the radiologically controlled area  
 Self-Assessment 2000-0018, Radiation Protection Program Annual Review

d. List of Acronyms

ACTION	Abnormal Condition Tracking Initiation Or Notification Report
ALARA	As Low As is Reasonably Achievable
DBT	Design Basis Threat
DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PCR	Plant Change Request
PI	Performance Indicator

RCA	Radiologically Controlled Area
RG&E	Rochester Gas and Electric Corporation
RWP	Radiation Work Permit
SDP	Significance Determination Process
SFP	Spent Fuel Pool
SSCs	Structures, Systems and Components
TSC	Technical Support Center
TSLHRA	Technical Specification Locked High Radiation Area