October 20, 2000

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

SUBJECT: NRC's R. E. GINNA SUPPLEMENTAL INSPECTION
REPORT 05000244/2000-007

Dear Dr. Mecredy:

On September 29, 2000, the NRC completed a supplemental inspection at your R. E. Ginna facility. The enclosed report summarizes the results of that inspection. Preliminary findings were presented to RG&E management led by Mr. J. Widay in an exit meeting on October 4.

This inspection was an examination of your activities associated with a white performance indicator for alert and notification system reliability in the emergency preparedness cornerstone. There were no significant findings identified.

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Sincerely,

/RA/

A. Randolph Blough, Director
Division of Reactor Projects

Docket No. 05000244
License No. DPR-18

Enclosure: Inspection Report 05000244/2000-007

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REGION I

Docket No:	05000244
License No:	DPR-18
Report No:	05000244/2000-007
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 25 - 29, 2000
Inspector:	H. K. Nieh, Senior Resident Inspector
Approved by:	W. A. Cook, Chief (Acting) Projects Branch 1 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000244-00-07, 09/25-29/2000; Rochester Gas and Electric Corporation; R. E. Ginna Nuclear Power Plant. Emergency Preparedness.

This report documents a supplemental inspection to review a white performance indicator for the alert and notification system reliability. This inspection was conducted in accordance with the NRC's Reactor Oversight Process (Attachment 2). The significance of issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process (SDP).

Cornerstone: Emergency Preparedness

The NRC performed a supplemental inspection, using inspection procedure 95001, to assess RG&E's evaluation associated with a white performance indicator for alert and notification system reliability. The inspector determined that RG&E performed a thorough evaluation for the performance indicator's change in color. This change was primarily due to a silent test failure that occurred on June 26, 2000. RG&E determined the cause of the silent test failure was the temporary interruption in the telephone communication line which serves to activate and transmit test signals to the Wayne County sirens. The inspector concluded that RG&E developed comprehensive corrective actions for this performance issue.

TABLE OF CONTENTS

ATTACHMENTS

Report Details

01 Inspection Scope (95001)

The NRC performed this supplemental inspection to assess RG&E's evaluation associated with the white performance indicator for the alert and notification system (ANS) reliability. The inspector reviewed pertinent corrective action reports; discussed the issue with RG&E emergency preparedness personnel; and verified completion of selected corrective actions.

Background

RG&E's ANS consists of sirens in Wayne and Monroe Counties. On June 26, 2000, a silent test failure of all 72 Wayne County sirens caused the performance indicator to fall below the green threshold value of 94%. RG&E determined that this test failure was due to a temporary interruption in the telephone communication line used for activation and testing of the Wayne County sirens. Additionally, a number of missed silent tests, which were counted as failures during the second calendar quarter, contributed to lowering the ANS performance indicator value.

The ANS reliability performance indicator is determined by dividing the number of successful siren tests by the number of sirens tested over a period of four calendar quarters. Data are collected from weekly silent tests, quarterly growl tests, and annual full activation tests. The weekly silent test consists of verifying electrical continuity of the ANS activation circuit via transmission of a test signal through a telephone circuit to each siren. The quarterly growl test consist of depressing a local manual switch for each siren which momentarily energizes the siren motor to ensure siren functionality. The annual full activation test verifies proper ANS functioning via sounding of all sirens from their respective Monroe and Wayne County 911 Centers.

02 Evaluation of Inspection Requirements

02.01 Problem Identification

a. Determine that the evaluation identifies who (i.e., licensee, self revealing, or NRC), and under what conditions the issue was identified.

Wayne County's emergency management staff noted the June 26 silent test failure and immediately notified RG&E. The missed silent tests were identified by RG&E when they did not receive confirmation of scheduled test completion from the responsible county personnel.

b. Determine that the evaluation documents address how long the issue existed, and prior opportunities for identification.

For the June 26 test failure, RG&E could not determine the exact length of time that the telephone communication problem existed because the responsible telephone company does not have accurate service or trouble records. RG&E estimated that the problem existed for approximately three hours. RG&E did not identify any previous silent test failures that would have provided an opportunity to identify this issue.

c. Determine that the evaluation documents the plant specific risk consequences (as applicable) and compliance concerns associated with the issue.

The ANS does not impact plant risk. Regarding compliance, RG&E identified that they had failed to make an NRC notification within the time required by 10 CFR 50.72. This noncompliance was previously addressed in NRC inspection report 05000244-00-03, section 4OA4.

02.02 Root Cause and Extent of Condition Evaluation

a. Determine that the problem was evaluated using a systematic method to identify root cause(s) and contributing cause(s).

RG&E had previously performed separate root cause evaluations for each ANS testing issue identified (i.e., silent test failure and missed silent tests). These evaluations were performed in accordance with procedure IP-CAP-2, "Root Cause Analysis." Additionally, RG&E conducted a collective evaluation for the ANS reliability performance indicator's change in color. The inspector determined that the cause evaluations were done in a logical and systematic manner.

b. Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.

The evaluation identified the primary cause of the performance indicator color change to be the June 26 silent test failure. The test failure was caused by an interruption of telephone service. RG&E could not determine the reason for the interruption because the phone lines are not property of RG&E and the responsible telephone company does not have accurate service or trouble records. The evaluation also addressed other causes, such as the missed silent tests, and identified other areas for improvement. The inspector concluded that RG&E's evaluation was thorough and had an appropriate level of detail.

c. Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience.

Through a review of siren testing records, RG&E did not identify any other siren test failures that resulted from problems with the telephone lines. Regarding the missed silent tests, RG&E determined that previous corrective actions were not effective in preventing recurrence.

d. Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.

The licensee's evaluation considered common causes and appropriately addressed extent of condition. For example, RG&E also evaluated Monroe County's siren activation system and determined that Monroe County's system also uses a leased telephone line. However, Monroe County's system can activate its sirens with a backup signal independent of the telephone line.

02.03 Corrective Actions

a. Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions are necessary.

After the test failure on June 26, RG&E maintenance personnel promptly responded to investigate Wayne County's siren system. However, no problems were noted during the troubleshooting and a successful test was completed about three hours after the failure. Since the problem was most likely with the telephone communications from the Wayne County activation site, RG&E has a planned corrective action to upgrade its alert and notification system. This upgrade consists of both software and hardware changes, including the addition of a common activation site for both counties and the installation of backup activation and testing capability that does not rely solely on an installed telephone line. RG&E has also completed corrective actions for other siren testing issues identified in the evaluation. These actions included procedure revisions and personnel training for better tracking of the siren test frequency and more timely notifications of test problems.

b. Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

RG&E developed a detailed siren system corrective action plan. The inspector verified that RG&E appropriately prioritized their planned actions.

c. Determine that a schedule has been established for implementing and completing corrective actions.

The inspector reviewed the status and completion schedule for all corrective actions associated with this issue. All completed actions were performed as scheduled, and planned actions were being tracked in RG&E's commitment and action tracking system.

d. Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.

The ANS reliability performance indicator will be used as the measure of success for RG&E's corrective actions.

4. OTHER ACTIVITIES [OA]

4OA6 Meetings

a. Exit Meeting Summary

On October 4, 2000, the inspector presented the supplemental inspection 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. A list of documents reviewed during the inspection is included in Attachment 1 to this report.

PARTIAL LIST OF PERSONS CONTACTED

RG&E

J. Widay	VP, Plant Manager
H. Aurand	Nuclear Safety & Licensing
F. Cordaro	Onsite Emergency Planner
P. Polfleit	Corporate Emergency Planner
R. Watts	Nuclear Training Department Manager

NRC

D. Silk	Senior Emergency Preparedness Inspector

ITEMS OPENED AND CLOSED

None

LIST OF ACRONYMS USED

ANS	Alert and Notification System
NRC	Nuclear Regulatory Commission
RG&E	Rochester Gas and Electric Corporation

ATTACHMENT 1

LIST OF DOCUMENTS REVIEWED

Action Reports

2000-0703 Timely notification was not made to control room following identification of failure of silent test in Wayne County (6/28/00)

2000-0700 Wayne County reported that they were unable to activate siren silent test scheduled on 6/26/00 (6/28/00)

2000-0672 Ginna siren silent test not performed (6/16/00)

2000-0479 Siren test not performed (4/11/00)

2000-0078 Failure by counties to run required siren test (1/18/00)

Other

Ginna Siren System Action Plan (RG&E interoffice correspondence dated 9/22/00)

Procedure IP-CAP-1, “Abnormal Condition Tracking Initiation or Notification (Action) Report”

Procedure IP-CAP-2, “Root Cause Analysis”

Procedure EPG-2, “Operation and Testing of the Ginna Sirens”

ATTACHMENT 2

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
• Initiating Events	• Occupational	• Physical Protection
• Mitigating Systems	• Public	
• Barrier Integrity		
• Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.