December 7, 2001

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

SUBJECT: GINNA NUCLEAR POWER PLANT - NRC INSPECTION REPORT 50-244/01-010

Dear Dr. Mecredy:

On November 2, 2001, the NRC completed an inspection of your R. E. Ginna facility. The enclosed report documents the inspection findings which were discussed on November 2, 2001, with Mr. Joseph Widay and other members of your staff.

This inspection examined activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection involved selected examinations of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded that the overall implementation of the corrective action program at Ginna was adequate. In general, problems were properly identified, evaluated and corrected. Notwithstanding, one Green finding was identified during this inspection with respect to a failure to identify the inadequate seismic evaluation of a containment isolation valve.

This finding was determined to be a violation of NRC requirements. However, based on its very low safety significance, and because it was entered into your corrective action program, the NRC is treating this finding as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-cited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Ginna facility.

Dr. Robert C. Mecredy

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Sincerely,

/**RA**/

David C. Lew, Chief Performance Evaluation Branch Division of Reactor Safety

- Docket No. 50-244
- License No. DPR-18
- Enclosure: NRC Inspection Report 50-244/01-010
- Attachment 1 Supplemental Information
- 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
 - N. Reynolds, Esquire
 - W. Flynn, President, New York State Energy Research and Development Authority
 - J. Spath, Program Director, New York State Energy Research and Development Authority
 - T. Judson, Central NY Citizens Awareness Network

Dr. Robert C. Mecredy

Distribution w/encl: H. Miller, RA J. Wiggins, DRA R. Haag, RI EDO Coordinator E. Adensam, NRR R. Clark, PM, NRR P. Milano, PM, NRR (Backup) H. Nieh, SRI - Ginna M. Evans, DRP W. Cook, DRP R. Junod, DRP Region I Docket Room (with concurrences) W. Lanning, DRS R. Crlenjak, DRS R. Nimitz, DRS J. Noggle, DRS D. Lew, DRS

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OFFICE	RI:DRS	RI:DRS	RI:DRS	RI:DRP	
NAME	JNoggle	JTrapp	DLew	MEvans	
DATE	11/09/01	12/05/01	12/06/01	12/07/01	

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: License No:	50-244 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:	October 15 to November 2, 2001
Inspectors:	J. Noggle, Senior Health Physicist, Team Leader B. Norris, Senior Reactor Engineer G. Cranston, Reactor Engineer
Approved by:	David C. Lew, Chief Performance Evaluation Branch Division of Reactor Safety

Summary of Findings

IR 05000244-01-10, on 10/15-11/02/2001, Rochester Gas & Electric, R. E. Ginna Nuclear Power Plant, annual baseline inspection of the identification and resolution of problems, one Green finding was identified with respect to problem identification.

The inspection was conducted by three regional inspectors. One Green finding of very low safety significance was identified during this inspection, and was classified as a Non-cited violation. The issue was evaluated using the significance determination process. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using 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.

Identification and Resolution of Problems

The team determined that the licensee's performance in the area of problem identification and resolution at the Ginna site was adequate. Based on a review of items from the licensee's operating, maintenance, engineering, and quality assurance processes, the team concluded the licensee was identifying problems and entering them into their corrective action program at the proper threshold. Notwithstanding, the team identified an example of a failure to promptly identify and subsequently correct problems associated with a primary containment isolation valve. The team also determined that the licensee was evaluating and categorizing problems at the correct significance level. Identified problems were properly prioritized. The evaluations were normally of adequate depth to identify the causes of problems and appropriately broad in considering the extent of the condition. The licensee developed and implemented corrective actions that appeared reasonable to address the identified problems. The team determined that, in general, the corrective actions were completed or scheduled to be completed in a timely manner.

A. Inspector Identified Findings

Cornerstone: Barrier Integrity

 Green. A Non-Cited Violation of 10 CFR 50 Appendix B, Criterion XVI, Corrective Action, for failure to identify that the support for containment isolation valve AOV-966C did not meet the screening criteria for seismic qualification, and therefore was not properly evaluated. The licensee declared the penetration inoperable and closed the redundant containment isolation valve pending resolution of the problem.

This finding was of very low safety significance because, (1) the probability of a design basis earthquake is very low, (2) the existing valve supports, though they did not meet the seismic qualification screening criteria, would provide some support to mitigate the consequences of a seismic event, (3) although not leak tested, there are other normally closed valves located in the line upstream of AOV-966C, and (4) a manual containment isolation valve is located upstream of AOV-966C. Also, there was no actual open pathway in reactor containment, therefore the SDP Phase 1 screens to Green. Because the finding is of very low safety significance and the finding was captured in the licensee's corrective action program, this finding is being treated as a Non-Cited

Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. (Section 40A2.1)

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (IP 71152)

.1 <u>Effectiveness of Problem Identification</u>

a. Inspection Scope

The team reviewed items selected from various licensee processes and activities to determine if the licensee was properly identifying, characterizing and entering problems into the corrective action process for evaluation and resolution. The licensee's primary process for identifying and resolving problems was the Action Report (AR) program. The team reviewed approximately 10% of the ARs as well as other documents initiated since the previous PI&R team inspection in August 2000. The specific documents are identified in Attachment 1. The review was performed to determine the licensee's threshold for identifying problems and entering them into the corrective action program.

The team reviewed items from the licensee's operating, maintenance, engineering, and quality assessment processes covering all seven cornerstones to determine if personnel were appropriately initiating ARs when problems were identified via these processes. The team reviewed a sample of the licensee's pertinent work orders (WO), control room deficiencies, system health reports, Nuclear Safety Audit Review Board (NSARB) meeting minutes, and several audits and self-assessments (including those of the licensee's corrective action program).

The team also conducted walk-downs and interviewed plant personnel to identify other processes that may exist where problems and issues could be identified. The team attended the licensee's daily work planning meeting to observe the interface between the corrective action program and the work control process.

b. Issues and Findings

Overall, the team determined that the licensee adequately identified problems and initiated ARs at the proper threshold to document and evaluate problems. When adverse trends or repetitive problems occurred, the licensee issued trend ARs to determine the cause and initiate corrective action. Notwithstanding, the team identified one example of a failure to properly evaluate a containment isolation valve and associated process piping for seismic qualification.

Green. A Non-Cited violation of 10 CFR 50 Appendix B, Criterion XVI, Corrective Action, for failure to identify that containment isolation valve AOV-966C was not properly evaluated for seismic qualification.

Specifically, valve AOV-966C is a primary containment isolation valve for the reactor coolant system loop 'B' hot leg coolant sample line (Penetration P205). It is in series with the redundant, normally open, manually operated containment isolation valve (valve 956D). Both containment isolation valves are located outside containment. Upstream of AOV-966C (and inside containment), there are additional, parallel isolation valves: a

check valve and a normally closed, fail closed isolation valve (AOV-955) which could prevent or reduce the amount of leakage out through penetration P205 should AOV-966C or its support tubing fail. However, neither valves inside containment are qualified containment isolation valves and are not leak tested.

During a walkdown, the inspector noted that the seismic supports for nearby valves AOV-966A and AOV-966B were considerably more robust than for AOV-966C. All three valves were essentially the same design and performed the same function as primary containment isolation valves for reactor coolant system sample lines. In response to the inspector's observation, the licensee re-evaluated the qualification of AOV-966C and determined that the original seismic screening evaluation worksheet sheet incorrectly described the support characteristics which were used to qualify the valve. According to the worksheet, the valve was supported by the associated 3/4" process piping line when, in fact, it was supported by 3/8" tubing. The licensee determined that the valve did not meet the Seismic Qualification Users Group (SQUG) screening criteria, declared AOV-966C inoperable, and closed the normally open manual containment isolation valve 956D for that penetration. Additionally, the inspector determined that the licensee missed an opportunity to identify the inadequate seismic screening and qualification of valve AOV-966C in October 2000, when the valve support was damaged and evaluated by the licensee as reported in their corrective action program (AR 2000-1371).

The finding was greater than minor because the failure to evaluate the seismic qualification could have a credible impact on safety in that containment barrier integrity could be degraded after a seismic event. The finding was of very low safety significance because (1) the probability of a design basis earthquake is very low, (2) the existing valve supports, though they did not meet the seismic qualification screening criteria, would provide some support to mitigate the consequences of a seismic event, (3) there are other normally closed valves in the line upstream of AOV-966C inside containment which, while not periodically leak tested, could function to reduce or prevent leakage, and (4) there is a manual containment isolation valve upstream of AOV-966C, outside of containment, which is accessible for closure to restore barrier integrity. There was no actual open pathway in the reactor containment, therefore the SDP Phase 1 screens to Green.

In accordance with 10 CFR 50, Appendix B, Criteria XVI, Corrective Action, measures shall be established to assure that conditions adverse to quality, be promptly identified and corrected. Contrary to 10 CFR 50, Appendix B, Criteria XVI, the licensee did not promptly identify that containment isolation valve AOV-966C was not properly evaluated for seismic qualification despite opportunity to do so when the valve support was damaged in October 2000 and AR 2000-1371 was initiated. However, because of very low safety significance and the because the issue is in the licensee's corrective action program, it is being treated as a Non-Cited Violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. (NCV 50-244/2001-10-01) The licensee documented this issue in AR 2001-1888, dated October 25, 2001, and plans to modify the seismic supports for AOV-966C prior to declaring the valve operable.

.2 <u>Prioritization and Evaluation of Issues</u>

a. Inspection Scope

The team reviewed items selected from the licensee's corrective action processes as specified in Attachment 1, to determine whether the issues were properly evaluated and resolved. The review included the appropriateness of the assigned significance, the timeliness of resolutions, and the scope and depth of the root cause evaluations (or apparent cause evaluation). The samples included those designated as safety significant and covered the seven cornerstones.

b. Issues and Findings

The team concluded that, in general, the licensee adequately prioritized and evaluated the issues entered into the AR process. Operability and reportability determinations were, in general, accurately determined. The licensee's evaluations were generally of adequate depth to identify the causes and appropriately broad in considering extent of condition.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The team reviewed the corrective actions associated with selected action reports to determine whether the corrective actions addressed the identified causes and were completed or scheduled to be completed in a timely fashion. The team reviewed action reports for repetitive problems to determine whether previous corrective actions were effective. The team also reviewed the backlog of corrective actions to determine if there were items that individually or collectively represented an adverse effect on plant risk or an adverse trend in the implementation of the corrective actions.

b. Issues and Findings

Overall, the team concluded the licensee developed and implemented corrective actions that appeared reasonable to address the identified problems. Based on the sample reviewed, the team determined that, in general, the corrective actions were completed or scheduled to be completed in a timely manner commensurate with the potential significance of the issue. The team did not identify corrective actions in the backlog of work that represented an adverse impact on plant safety.

.4 Assessment of Safety-Conscious Work Environment

a. <u>Inspection Scope</u>

The team reviewed the licensee's Safety Conscious Work Environment Program implementation and interviewed plant personnel to determine if personnel were hesitant to identify safety issues.

b. Issues and findings

No findings were identified.

- 4OA6 Meetings
 - a. Exit Meeting Summary

The team presented their overall findings to Mr. J. Widay and his staff on November 2, 2001. RG&E management acknowledged the findings. The team asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

List of acronyms

AOV	Air-Operated Valve
AR	Action Report
CA	Corrective Action
CFR	Code of Federal Regulations
GIP	Generic Implementation Procedure
IPEEE	Individual Plant Examination of External Events
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NSARB	Nuclear Safety Audit Review Board
OA	Other Activities
PI&R	Problem Identification and Resolution
PMT	Post Modification Test
RCA	Root Cause Analysis
SDP	Significance Determination Process
SQUG	Seismic Qualification Users Group
TRM	Technical Requirements Manual
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order

List of documents reviewed

Action Reports reviewed:

1000 0000	2000 0702	0000 0070	0000 4450	0000 4000	0000 4450	0000 4570
1999-0890	2000-0792	2000-0972	2000-1156	2000-1329	2000-1459	2000-1576
1999-1000	2000-0795	2000-0974	2000-1160	2000-1351	2000-1465	2000-1595
2000-0008	2000-0796	2000-0984	2000-1172	2000-1366	2000-1467	2000-1620
2000-0033	2000-0798	2000-0985	2000-1176	2000-1369	2000-1475	2000-1621
2000-0064	2000-0800	2000-0994	2000-1177	2000-1371	2000-1479	2000-1624
2000-0074	2000-0805	2000-1054	2000-1185	2000-1378	2000-1484	2000-1631
2000-0075	2000-0806	2000-1064	2000-1191	2000-1382	2000-1501	2000-1637
2000-0077	2000-0808	2000-1065	2000-1199	2000-1386	2000-1505	2000-1646
2000-0081	2000-0875	2000-1075	2000-1206	2000-1396	2000-1506	2000-1652
2000-0087	2000-0882	2000-1086	2000-1223	2000-1408	2000-1507	2000-1653
2000-0091	2000-0885	2000-1086	2000-1234	2000-1409	2000-1510	2000-1661
2000-0092	2000-0891	2000-1087	2000-1242	2000-1413	2000-1516	2000-1662
2000-0133	2000-0894	2000-1090	2000-1243	2000-1416	2000-1525	2000-1665
2000-0149	2000-0905	2000-1092	2000-1258	2000-1421	2000-1527	2000-1695
2000-0385	2000-0926	2000-1120	2000-1271	2000-1423	2000-1532	2000-1696
2000-0573	2000-0932	2000-1121	2000-1275	2000-1429	2000-1543	2000-1699
2000-0652	2000-0941	2000-1133	2000-1278	2000-1440	2000-1548	2000-1706
2000-0678	2000-0959	2000-1139	2000-1281	2000-1446	2000-1556	2000-1707
2000-0703	2000-0967	2000-1142	2000-1292	2000-1454	2000-1560	2000-1719
2000-0791	2000-0970	2000-1146	2000-1327	2000-1455	2000-1566	2000-1720

Work orders reviewed:

19903559	20002532	20002787	20003103	20100135	20101840	20103041
20001074	20002552	20002829	20003120	20100137	20102157	20103116
20001270	20002560	20002861	20003160	20100139	20102097	20103223
20001665	20002565	20002875	20003231	20100168	20102316	20103244
20002061	20002567	20002876	20003343	20100315	20102326	20103507
20002270	20002596	20002890	20003448	20100823	20102388	20103508
20002320	20002654	20002893	20003559	20101413	20102675	20103537
20002368	20002721	20002924	20003634	20101642	20102762	20103558
20002462	20002730	20002953	20100025	20101729	20102823	20103571
20002524	20002734	20003056	20100037	20101801	20102839	20103624
20002530	20002754	20003059	20100111			

Procedures reviewed:

Procedure Number	Rev	Title
A-3.3	08	Containment Integrity Program
A-52.16	13	Operator Workaround/Challenge Control
ES-1.3	31	Transfer to Cold Leg Recirculation
IP-CAP-1	12	Abnormal Condition Tracking Initiation or Notification (ACTION) Report
IP-CAP-1.1	01	Operability and Past-Operability Determination Checksheet
IP-CAP-1.2	01	Interim Disposition Form
IP-CAP-1.3	03	ACTION Report/WR/TR Form

IP-CAP-1.4	01	Action Report Extension Request Form
IP-CAP-1.5	00	Precursor Report Form
IP-CAP-1.6	01	ACTION Report Form
IP-CAP-2	03	Root Cause Analysis
IP-CAP-3	02	Investigation Teams
IP-CAP-6	02	10CFR21 Screening, Evaluating, and Reporting
IP-HPE-1	03	Human Performance Event Evaluation Process
IP-NPD-4	06	Nuclear Operations Group Work Prioritization
PTT-23.12C	04	Containment Isolation Valve Leak Rate Testing, RCS Loop B Hot Leg
		Sample, Pen 205

Other Documents Reviewed:

Document Number	Title		
QA Audits			
AINT-2000-04	Nuclear Energy Response Plan		
AINT-2000-07	Operations		
AINT-2000-08	Technical Specifications		
AINT-2000-10	Corrective Action Process Effectiveness		
AINT-2001-04	Nuclear Energy Response Plan		
AINT-2001-07	Operations Training		
AINT-2001-09	Engineering and Configuration Control Audit		
AINT-2001-14	Corrective Action and Operating Experience Programs Audit		
AINT-2001-19	Maintenance		
Self Assessments			
SA-2000-03	Operations Department Expectations		
SA-2000-04	Engineering Support Personnel Focused Program Evaluation		
SA-2000-21	A-52.16 Operator Workaround/Challenge Control		
SA-2000-26	Design Control Notice of Violation		
SA-2001-19	Electrical Maintenance		
Review Committee Mee	eting Minutes		
	Nuclear Safety Audit Review Board Meeting Minutes: Meetings 240,		
	October 2000; and 241, February 2001		
	PORC Meeting Minutes: Meeting 2001-001, January 4, 2001; 2001-		
	006, February 1, 2001; 2001-010, March 1, 2001; 2001-015, April 5,		
	2001; 2001-021, May 3, 2001; 2001-026, June 7, 2001; 2001-030,		
	July 12, 2001; 2001-034, August 7, 2001		
Non-Cited Violations			
2000-08-01	Incorrect Interpretation of Source Range Nuclear Instrumentation		
	System Logarithmic Scale		
2000-08-02	Containment Recirculation Fans in Pull-to-stop with Change from		
	Mode 5 to Mode 4		
2000-09-02	Potential Screen House Fire Could Prevent B EDG To Start		
2000-11-01	Flow Indication for Service Water Redundant Return Line Does Not		
	Indicate Properly		
2001-05-01	Lack of Procedural Guidance for Response to Loss of Service Water		
Temporary Modification	IS		

Prevent Grease Escape From Tendons Pending Installation of PCR 2000-0010 2000-030 2000-0017 Clearing of Annunciator L1 Control Rod Drive Cabinet Temporary Air Conditioning Unit 2001-0008 2001-0009 2001-0009, Temporary Sodium Hypochlorite Addition System 2001-0012 Temporary SI Accumulator Makeup Pump. Install Temporary Pressure Gauge at Reactor Makeup Water Supply 2001-0014 to Boric Acid Blender Drain Valve **Operating Experience** Turkey Point CRDM Connector Degradation, January 25, 2001 ____ INPO SEN-216 Leakage from Reactor Vessel Nozzle-to-Hot Leg Weld Fuel Assembly Top Nozzle Spring Screws, Rev. 1 NSAL-99-004 OE 8438 Reactor Vessel Level Indication System Level Indication Problem at Kewanee OE 12396 CCW System Seismic Capability Challenged During Single Pump Removal for Maintenance W-TB-00-05-R0 Westinghouse Technical Bulletin, Change in FB Relay Coil Design Licensee Event Reports 2000-001 Intermediate Range Channel Loss of Control Power, Due to Excessive Signal Noise, Results in Reactor Trip, September 18, 2000 Two Fans Inoperable During Transition from Mode 5 to Mode 4, Due 2000-004 to Personnel Error, Resulted in Condition Prohibited by Technical Specifications, October 14, 2000 Loss of "B"Condenser Circulating Water Pump Results in Manual 2000-005 Reactor Trip, October 21, 2000 Piping & Instrumentation Drawings 33013-1246 Component Cooling Water 33013-1250 Service Water (safety related) 33013-1251 Service Water (non-safety related) 33013-1278 Nuclear Sampling System Other Ginna IPEEE Seismic Evaluation Report, January 1997 ____ Ginna Technical Requirements Manual, Sections 3.1.1, 3.1.2 ----Ginna Technical Specifications, Sections 3.4.14, 3.6.1, 3.6.3, 3.9.3 ____ Ginna Updated Final Safety Analysis Report, Sections 5.2, 6.2.4, ____ 6.3.3.1.3, 9.3.4, Table 6.2-15 Monthly Performance Indicator Report for September 2001 ____ Nuclear Assessment Quarterly Analysis Report for 2nd Qtr, 2001 ____ NUREG-0821, Integrated Plant Safety Assessment, Systematic ____ Evaluation Program, R.E. Ginna Nuclear Power Plant, December 1982

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Persons Interviewed:

- P. Bamford Primary/Reactor Systems Engineering Manager
- F. Cordaro Onsite Emergency Preparedness Planner
- M. Flaherty Nuclear Safety & Licensing Manager
- R. Forgensi Operational Review Manager
- J. Germain Root Cause Analyst
- J. Hotchkiss Mechanical Maintenance Manager
- A. Jones Corrective Actions/ Nuclear Assessment
- J. Jones Engineer
- G. Joss Testing Coordinator
- T. Kirkpatrick Data Analyst
- T. Laursen Nuclear Training/Performance Consultant
- R. Marchiona Nuclear Assessment Department Manager
- F. Mis Radiation Protection and Chemistry Manager
- R. Nye Shift Manager
- R. Ploof Balance of Plant Systems Manager
- F. Puddu Operational Review
- M. Ruby Nuclear Safety & Licensing Engineer
- L. Stavalone Operational Review Trending Analyst
- W. Tono Seismic Engineer
- J. Widay Vice President and Plant Manager