

U. S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report Nos. 50-244/97-04

License Nos. DPR-18

Licensee: Rochester Gas and Electric Corporation  
89 East Avenue  
Rochester, NY 14649

Facility: R. E. Ginna Nuclear Power Plant

Dates: June 10, 1997 - June 12, 1996

Inspectors: J. Lusher, Emergency Preparedness Specialist, Region I  
J. Laughlin, Emergency Preparedness Specialist, Region I  
D. Barss, Emergency Preparedness Specialist, NRR  
T. Moslak, Project Engineer, DRP/Branch 1  
S. Dennis, Operations Engineer, DRS  
T. Beltz, Resident Inspector, Nine Mile Point

Approved by: Michael C. Modes, Chief  
Emergency Preparedness and Safeguards Branch  
Division of Reactor Safety



## EXECUTIVE SUMMARY

R.E. Ginna Nuclear Power Plant  
Full-participation Emergency Preparedness Exercise Evaluation  
June 10-12, 1997  
Inspection Report 50-244/97-04

Overall performance of the ERO was very good. Simulated events were accurately diagnosed, proper mitigation actions were performed, emergency declarations were timely and accurate, and off-site agencies were notified promptly. No exercise weaknesses, safety concerns, or violations of NRC requirements were observed. However the Maintenance Assessment Manager, and Radiation Protection/Chemistry Manager missed this opportunity to learn and document important information available from team members. For example the (scenario) general area dose rate around the A residual heat removal pump breaker was estimated to be 40 R/hr. The health physics tech. found actual (scenario) dose rate to be 25 R/hr in the area. This information was not reported to, or logged by, the RP/Chem Manager. This information would have been valuable in planning and preparation for other possible entries in to this area. The health physics technician did later in the exercise document survey information, however, these surveys were not provided to the RP/Chem Manager in the TSC/OSC. The failure to perform debriefings, described in the licensees procedure EPIP 1-12, "Repair and Corrective Action Guidelines During Emergency Situations," Section 6.6, "Debriefings," is considered an inspector follow up item.

## Report Details

### P4 Staff Knowledge and Performance

#### a. Exercise Evaluation Scope

During this inspection, the NRC inspectors observed and evaluated the performance of the licensee's emergency response organization (ERO) during the biennial, full-participation exercise in the simulator control room (SCR), technical support center (TSC), operations support center (OSC), and the emergency operations facility (EOF). The inspectors assessed licensee recognition of abnormal plant conditions, classification of emergency conditions, notification of offsite agencies, development of protective action recommendations, command and control, communications, and the overall implementation of the emergency plan. In addition, the inspectors attended the post-exercise critique to evaluate the licensee's self-assessment of the exercise.

#### b. Emergency Response Facility Observations and Critique

##### Simulator Control Room (SCR)

The unusual event and alert classifications were timely and correct. The control room communicator completed the event notifications to state and local officials within the 15 minute time requirement and to the NRC within the one hour time requirement. Update notifications to other facilities were also made within the required time limits.

The shift supervisor demonstrated good command and control throughout the exercise. The crew briefs, although initially informal, were thorough and solicited input from crew members. Additionally, numerous discussions among crew members were held to determine possible event mitigation strategies. The turnover of emergency coordinator duties to the technical support center was timely and well controlled.

Communications were generally good with three-way repeat backs used in most cases. The crew demonstrated good teamwork, made appropriate use of procedures, and maintained their focus throughout the exercise. The operators promptly diagnosed and responded to abnormal plant conditions.

Overall, simulator control room activities were good. No weaknesses were noted.

##### Technical Support Center (TSC)

The TSC was staffed and activated in a timely manner. The TSC Director relieved the Shift Supervisor as Emergency Coordinator (EC) at 9:19 a.m. and informed the TSC staff of that fact. The Site Area Emergency declaration at 9:55 a.m. was correct and timely, and notifications of offsite officials were completed within the required time.

The EC demonstrated adequate command and control. He kept his staff updated on plant events by making brief PA announcements early in the exercise. However, after the emergency operations facility (EOF) assumed command and control of the simulated emergency at 10:25, he provided few status briefings. Additionally, he did not announce any information on key items such as plant mitigation priorities, personnel accountability, or the simulated radiological release. The EC did interact with his managers on an individual basis to stay abreast of events in their areas. He also conducted two manager briefings, but both were curtailed by major plant events.

The noise level in the TSC increased noticeably after the initiation of the simulated radiological release at about 11:15 a.m. There were numerous casual conversations among exercise participants, especially among the admin/communication staff, and the EC made no attempt to quiet his staff. The inspector concluded that the TSC fulfilled its role during the exercise, but that TSC staff functions had a more focused and professional demeanor while the EC was directing licensee mitigation activities (approximately 9:19 to 10:25 a.m.).

There were good discussions between the Operations Assessment Manager and his staff concerning plant issues and mitigation strategies. The Dose Assessment Manager and his staff provided timely radiological information to the EC for decision-making. For example, he advised the EC on evacuation routes based on plume direction, the increase in containment high-range radiation monitor readings which led to the General Emergency (GE), and the increase in plant vent radiation readings which indicated the simulated radiological release. Radiation protection personnel ensured that TSC habitability was satisfactory.

However, the inspector noted that the TSC staff did not use their checklists from EPIP 5-7 as required by EPIP 1-9, "Technical Support Center Activation," to carry out their responsibilities. Additionally, the EC Assistant used an informal checklist which is not contained in any procedure to assist the EC in the performance of his duties. Item #41 on this informal checklist was to ensure that status boards have current information. However, the "Key Events" status board was not maintained up to date, having only one entry after the 10:35 a.m. GE. Although this had no negative impact on exercise results, the inspector concluded that procedural usage was weak.

Drill control in the TSC was also weak. Exercise controllers carried on unnecessary conversations with exercise participants. On at least one occasion, there was a lengthy discussion which was unrelated to the exercise. Overall, the performance in the TSC was adequate.

### Operations Support Center (OSC)

The OSC and Satellite OSC were staffed and activated in a timely manner after the Alert declaration. Responding personnel appropriately used emergency response procedures during the facility activation process. Self reading dosimeters were signed out on arrival at the facilities to ensure proper monitoring for exposure control. Log books for key positions were initiated and utilized to record important information.

The Maintenance Assessment Manager provided adequate command and control of the OSC. Personnel in the OSC received status briefings from the Emergency Coordinator when he provided update briefings to the TSC staff. Briefing information was relayed to the Satellite OSC by telephone and then presented to personnel in the facility waiting for job assignments.

Repair and corrective action teams were quickly formed when called for. Prejob briefings were conducted to establish the scope of the assigned tasks, safe travel routes, radiological controls to be followed, and communication contacts to be utilized. There was good coordination between operators and health physics technicians both before and during assigned tasks.

Upon completion of tasks post job debriefs were not conducted, nor documented, for teams returning from the field. The Maintenance Assessment Manager, and Radiation Protection/Chemistry Manager missed this opportunity to learn and document important information available from team members. For example the (scenario) general area dose rate around the A RHR breaker was estimated to be 40 R/hr. The health physics technician found actual (scenario) dose rate to be 25 R/hr in the area. This information was not reported to, or logged by, the RP/Chem Manager. This information would have been valuable in planning and preparation for other possible entries in to this area. The health physics tech. did later in the exercise document survey information, however, these surveys were not provided to the RP/Chem Manager in the TSC. The failure to perform debriefings, described in the licensees procedure EPIP 1-12, "Repair and Corrective Action Guidelines During Emergency Situations," Section 6.6, "Debriefings", is considered an inspector follow up item (IFI). (IFI 50-244/97-04-01)

Operations and health physics personnel demonstrated good health physics and ALARA techniques while in scenario postulated high radiation and contaminated areas. These personnel maintained a professional attitude during scenario events.

The health physics technician (player) identified a problem with the two self contained breathing apparatus (SCBAs) stored at the access control point. The face piece harness was found to be installed with a twist in the straps which initially caused an improper fit of one SCBA. Subsequently the individual was able to get a good fit and proceeded to accomplish the assigned urgent task to stop the postulate offsite release. The problem with the SCBA face piece harness was documented as a licensee Action Report to ensure correction of the problem.

Overall, OSC response was adequate. One IFI was identified, no weaknesses were observed.

#### Emergency Operations Facility (EOF)

Overall, strong command and control and a healthy questioning attitude was demonstrated by the Recovery Manager and the EOF staff. Prior to EOF activation, the Recovery Manager caucused the EOF staff to determine readiness for activation; actions were taken to fill a staffing vacancy. Upon assuring the EOF was appropriately staffed, the EOF received a detailed turnover of plant status information from the TSC before assuming command and control. Excellent administrative support was observed in updating status boards and in promptly providing current computer printouts to the staff. Recovery Manager briefings followed an established agenda, were conducted hourly (or more frequently when plant conditions dictated), accurately detailed current actions taken to mitigate equipment casualties, provided rationale for protective action recommendations, identified the time of the next briefing, and actively solicited feedback from the state/county representatives. The Recovery Manager and Nuclear Operations Manager effectively used the EAL manual, basis document, and EAL wall chart to clearly communicate plant conditions to the state/county and public information representatives. Protective action recommendations were made in a timely manner.

Several items for improvement were noted by the inspectors. The Recovery Manager's briefing agenda could be proceduralized to assure that it is uniformly used by others when assuming that position. A map identifying the Emergency Response Planning Areas (ERPAs) could be posted in the EOF conference room to facilitate identification of areas affected by the protective action recommendations. Dose rate information should be described in "R per hour" vice "R" to minimize confusion when extrapolating dose rate measurements to accumulated dose. During the early stages of EOF activation, the security manager and engineering support manager could be more vocal in identifying their staff's actions during Recovery Manager briefings.

#### Dose Assessment

Members of the dose assessment team started to arrive shortly after the declaration of the Alert and began to go through their check list and place the EOF dose assessment area into operation. Members of the dose assessment staff immediately obtained the current scenario weather information and posted the current weather information and the forecast on the status board. Other members of the dose assessment team performed 'what if' calculations to bound the possible scenarios for the plume and dose projections.

Within about an hour the dose assessment manager arrived, was briefed on the current conditions, contacted the TSC for a turn over from the TSC dose assessment manager, assumed dose assessment responsibilities from the TSC, and informed the recovery manager that the dose assessment area was operational. The dose assessment manager worked closely with the recovery manager to formulate the protective action recommendations at the declaration of the General Emergency and the up grade which came later due to a wind shift.

The assistant dose assessment manager was in contact with Wayne and Monroe county dose assessment personnel to ensure coordination of the county field monitoring teams and the transfer of field team monitoring data. During the exercise there was good exchange of field monitoring team data between the licensee and the counties which helped to identify the simulated release plume location and boundaries.

The inspector noted that the licensee had problems initiating its meteorological information data acquisition system (MIDAS) and was unable to use it during the exercise. Additionally, the dose assessment staff was presented with isotopical data from field monitoring team air samples and were unable to perform dose calculations with out major hand calculations before entering the information into the EOF 7.0 dose assessment modeling system.

#### Licensee Exercise Critique

The licensee's critique was very comprehensive and thorough. It identified all of the observations identified by the NRC inspection team.

#### c. Overall Exercise Conclusions

Overall performance of the ERO was very good. Simulated events were accurately diagnosed, proper mitigation actions were performed, emergency declarations were timely and accurate, and offsite agencies were notified promptly. No exercise weaknesses, safety concerns, or violations of NRC requirements were observed.

#### P8 Miscellaneous EP Issues

##### a. Exercise Control

Some minor problems were observed concerning exercise control and use of simulation.

There was contradictory and confusing information provided on the status of the A annunciator panel repairs. The I&C Technician received information that there was still a problem, at the same time the Emergency Coordinator was told that it was fully restored. This issue was not resolve by either players or controllers and was soon forgotten as the scenario moved on.

There was confusion over the degree of simulation allowed for the A RHR breaker team. Controller direction was for no simulation, RP Manager (player) instructed the team to not actually wear protective clothing out side of plant buildings since this was not a real event. Pre-exercise discussions had established that protective clothing was not to be simulated onsite, however it would be simulated for offsite teams. The controller did not control exercise play within establish scenario parameters.

#### V. MANAGEMENT MEETINGS

##### X1 Exit Meeting

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on June 12, 1997. The licensee acknowledged the inspector's findings.

#### PARTIAL LIST OF PERSONS CONTACTED

##### Licensee

- B. Smith, Senior Vice President
- F. Cordaro, Onsite Emergency Planner
- R. Watts, Manager, Nuclear Assessment
- B. Popp, Training Manager
- J. Smith, Maintenance Superintendent
- J. Hotchkiss, Mechanical Maintenance Manager
- G. Palmer, Security Project Manager
- D. Kuhn, Quality Assurance
- P. Polfleit, Corporate Nuclear Emergency Planner
- T. Marlow, Engineering Manager
- T. White, Manager, Operations
- R. Mecredy, Vice President Nuclear Operations
- T. Alexander, Manager Nuclear Assurance

##### NRC

- J. Lusher, Emergency Preparedness Specialist, Region I
- J. Laughlin, Emergency Preparedness Specialist, Region I
- D. Barss, Emergency Preparedness Specialist, NRR
- T. Moslak, Project Engineer, DRP/Branch 1
- S. Dennis, Operations Engineer, DRS

## LIST OF INSPECTION PROCEDURES USED

82301: Evaluation of Exercises for Power Reactors

82302: Review of Exercise Objectives and Scenarios for Power Reactors

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

IFI 50-244/97-004-01 The failure to perform debriefings, described in the licensees procedure EPIP 1-12, "Repair and Corrective Action Guidelines During Emergency Situations," Section 6.6, "Debriefings," is considered an inspector follow up item.

Closed

None

Discussed

None

## LIST OF ACRONYMS USED

EAL	Emergency Action Level
EC	Emergency Coordinator
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERF	Emergency Response Facility
ERO	Emergency Response Organization
GE	General Emergency
IFI	Inspector Follow-up Item
MIDAS	Meteorological Information Data Acquisition System
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PA	Public Address system
PAR	Protective Action Recommendation
SAE	Site Area Emergency
SCBA	Self Contained Breathing Apparatus
SCR	Simulator Control Room
TSC	Technical Support Center

