

U. S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-244/91-09

Docket No. 50-244

License No. DPR-18

Licensee: Rochester Gas and Electric Corporation  
49 East Avenue  
Rochester, New York 14649

Facility Name: Ginna Nuclear Power Plant

Inspection At: Ontario, New York

Inspection Conducted: April 8-12, 1991

Inspector: *P. O'Connell* 4-20-91  
P. O'Connell, Radiation Specialist date

Approved by: *W. Pasciak* 4-29-91  
W. Pasciak, Chief, Facilities date  
Radiation Protection Section, DRSS

Inspection Summary: Inspection on April 8-12, 1991 (Report No. 50-244/91-09).

Areas Inspected: A routine, unannounced inspection of the radiological controls program on site, including status of previously identified items, qualifications and staffing of personnel, training, audits, facility tours, evaluation of leaking secondary source, and ALARA.

Results: Within the scope of this inspection no violations were identified.

## DETAILS

### 1.0 Personnel Contacted

#### 1.1 Licensee Personnel

- S. Adams, Technical Engineering Manager
- M. Clifton, Trainer, Health Physics and Chemistry
- \* D. Filkins, Health Physics and Chemistry Manager
- \* W. Goodman, Health Physics Technician Foreman
- \* A. Harhay, Chemistry Services Manager
- \* A. Hermans, Health Physicist
- \* N. Kiedrowski, Training Coordinator, Health Physics and Chemistry
- \* K. Lang, Health Physicist
- \* M. Lilley, Manager, Nuclear Assurance
- \* F. Mis, Health Physicist
- \* B. Quinn, Corporate Health Physicist
- \* B. Selbig, Quality Control Specialist
- \* B. Stanfield, Quality Assurance Engineer, Operations
- \* J. St. Martin, Corrective Actions Coordinator
- \* J. Widay, Superintendent, Ginna Production
- \* J. Wierowski, Health Physicist
- \* R. Wilkinson, Quality Assurance Engineer

#### 1.2 NRC Personnel

- T. Moslak, Senior Resident Inspector
- \* W. Pasciak, Chief, Facilities Radiation Protection Section
- \* N. Perry, Resident Inspector

\* Denotes attendance at the exit meeting on April 12, 1991.

### 2.0 Purpose

The inspection was a routine, unannounced inspection of the radiological controls program. Areas reviewed included the status of previously identified items, qualifications and staffing of personnel, training, audits, facility tours, evaluation of a leaking secondary source, and ALARA.

### 3.0 Status Of Previously Identified Items

- 3.1 (Closed) Unresolved Item 90-30-01 The licensee was using thermoluminescent dosimeters (TLDs) for containment power entries which did not hold National Voluntary Laboratory Accredited Program (NVLAP) accreditation for all categories.



The TLD used was not NVLAP accredited in the categories for: accidents-low energy photons, accidents-high energy photons, low energy photons, and mixtures of high and low energy photons. Once this concern was raised, the licensee initiated a practice of issuing routine use TLDs, which were NVLAP accredited in all categories, to individuals making containment power entries.

The licensee planned on taking gamma spectroscopy measurements inside containment at power early in 1991. The licensee anticipated that the results of those measurements could determine that NVLAP accreditation was not required for all categories. The gamma measurements were delayed and will not be made until later this summer. While the results of the gamma measurements may demonstrate that, at the time of the measurement, NVLAP accreditation would not be required for certain categories, such as low energy photons, these measurements would not demonstrate that the accident categories are not required. During the exit meeting on April 12, 1991 the licensee stated that personnel making power entries into containment will continue to wear TLDs that are NVLAP accredited in all categories. This practice will continue until such time that the licensee is able to demonstrate that certain NVLAP accreditation categories would not be required. This item is considered closed.

- 3.2 (Closed) Noncompliance Item 90-18-01 The violation involved the licensee's shipping a cask to a disposal site with loose radioactive material outside the disposal container but within the shipping cask. The inspector verified that the licensee had implemented the corrective actions as described in the licensee's response letter dated October 24, 1990. The corrective actions included establishing personnel training and experience requirements for radwaste workers, utilizing an improved resin transfer system to minimize the potential for spreading contamination, upgrading procedures, and conducting pre-job briefings for resin transfer evolutions. At the time of the inspection, the licensee had not documented the training and experience requirements which are required for radwaste workers. The licensee stated that they would include the training and experience requirements in their radwaste handling procedures.

The licensee only made one resin shipment since October 1990. The licensee did encounter a contamination problem with that shipment. The enhanced training and procedure



upgrades were effective in ensuring that management was notified of the problem and the corrective action of decontaminating the cask was completed prior to the shipment. The licensee noted that the use of the improved resin transfer system, a fillhead, was not effective in eliminating the spread of contamination. The licensee stated that they are evaluating the modification of the operating procedures to use water instead of air when flushing the transfer system. This licensee anticipates that this change would eliminate the contamination problem. Licensee follow-up action on this area will be reviewed during a future inspection. This item is considered closed.

#### 4.0 Qualifications and Staffing of Personnel

The inspector reviewed the licensee's organization chart and noted that the licensee had fully staffed all four professional level Health Physicists positions. Two of the Health Physicists were recently hired. The inspector reviewed the qualifications of the two new Health Physicists and determined that the individuals were well qualified for the positions. The licensee also appointed four individuals as Lead Health Physics Technicians (HPTs) in the Health Physics area and two Lead HPTs in the Chemistry area. Progress also was made in the area of staffing of permanent staff HPTs with all but two of the HPT positions being staffed.

The inspector reviewed the licensee's staffing of contractor HPTs for the outage. At the time of the inspection there were 45 senior contractor HPTs on-site and 23 junior contractor HPTs. By discussions with plant personnel and direct observation of several work activities the inspector determined that the licensee adequately augmented their radiation protection staff to support outage activities.

The licensee informed the inspector that an organizational change was planned for June 1991. The change would involve appointing the individual who is currently the Chemistry Services Manager to the position of HP and Chemistry Manager. Through discussions with licensee management it was determined that this individual did not have experience in applied radiation protection at a nuclear facility. Technical Specification 6.3.1 requires each member of the facility to meet or exceed the minimum qualifications of ANSI Standard 18.1, 1971, as supplemented by Regulatory

Guide 1.8 September, 1975. Regulatory Guide 1.8, 1975 requires, in part, that the Radiation Protection Manager, which is a position equivalent to the HP and Chemistry Manager, should have at least 5 years of professional experience in applied radiation protection. The inspector noted that certain members of the HP organization did meet the minimum qualifications of Regulatory Guide 1.8, 1975. The inspector informed the licensee that it was acceptable to appoint this individual as the HP and chemistry Manager provided that the licensee administratively ensures that an individual who meets the minimum qualifications of Regulatory Guide 1.8, 1975 is present during meetings which require technical health physics input. These meetings could include Plant Operations Review Committee meetings, Plant ALARA Committee meetings, as well as others. The licensee stated that they would evaluate the qualifications of the staff Health Physicists against the criteria of Regulatory Guide 1.8, 1975 and administratively ensure that a qualified individual is present at applicable meetings. This item will be reviewed during a future inspection.

Currently the licensee is operating the facility on a 12 month cycle, with outages scheduled to begin in early spring of each year. Discussions with the Senior Resident Inspector indicated that this was a long standing practice which allows for refueling outages to be conducted during an off-peak electrical demand season.

#### 5.0 Training

The inspector reviewed the reactor systems training which HPTs are given. Currently all permanent staff HPTs are given a 2 week general pressurized water reactor systems course. The licensee has recently developed a training program for HPTs "Plant Systems Chemistry/Radiological Controls". This program focuses on the radiological and the chemistry control concerns regarding the operation of different systems. The licensee anticipates offering the course to 5 newly hired HPTs as a pilot program in June 1991. The current plans are to cycle all staff HPTs through the course which is planned to begin during the latter part of 1991. The inspector reviewed the lesson plans for the new program and found the program to be an excellent licensee initiative.

## 6.0 Audits

The licensee routinely schedules 2 audits per year of the radiation protection program. The inspector reviewed the last 2 audits of the program and found the audits to be comprehensive and conducted by well qualified individuals. The licensee had been responsive to audits findings. During the 1991 refueling outage, the licensee was in the process of conducting an additional audit focusing on worker radiological practices. This was considered a good initiative.

The licensee also routinely conducts surveillances of the implementation of the radiation protection program. The inspector reviewed several surveillances and the 1991 surveillance schedule. Overall, the licensee had a good program for conducting surveillances of the program. The inspector also reviewed several Radiological Incident Reports and determined that the licensee was effectively identifying and correcting poor work practices and other incidents.

## 7.0 Plant Tours

Several tours of the Radiological Controls Areas (RCA) were conducted during this inspection to observe access control, postings, and work practices. The general findings were that access control and postings were good, and HPTs were found to observe activities and provide assistance at all key locations in the Containment, Intermediate, and Auxiliary Buildings. The inspector observed several work activities in the facility and found the HPT job coverage to be very good. Workers were found to be in compliance with radiation work permit (RWP) requirements. Housekeeping was found to be acceptable, especially in view of the number of work activities. Dressing areas were well stocked with protective clothing and used protective clothing containers were promptly collected once full.

The inspector discussed with several security guards what the appropriate response was to an individual alarming the exit portal monitors. Individuals who alarm the portal monitor are instructed to try to go through the monitor a second time. All of the security guards were aware of the procedural requirement of notifying the radiation protection group if an individual alarmed the portal monitor on the second attempt.

The inspector noted that the licensee continued to experience a fairly high number of personnel contaminations. At the time of the inspection, which was conducted during the early part of the refueling outage, the licensee had already exceeded their outage goal of 120 personnel contaminations. The inspector reviewed several personnel contamination reports and observed workers donning and removing protective clothing (PCs). Some of the more frequent causes of the personnel contaminations identified in the personnel contamination reports and by the inspector were:

Inadequate communications. It appeared that unclear worker understanding of the scope of work to be conducted contributed to many of the personnel contaminations.

Workers exhibiting poor worker practices. The inspector noted that many individuals were not following the proper PC removal sequence as taught in general employee training. The licensee had upgraded the dress out guidance for this refueling outage and several individuals were observed to following the old dress out guidance. For example, there was confusion regarding how to remove contaminated gloves.

In several personnel contamination reports it was identified that individuals were wearing PCs which were contaminated from the laundry. The inspector reviewed the licensee's procedure for monitoring laundered PCs and found the procedure to be acceptable with the exception of the procedure for surveying hoods. The licensee was surveying hoods with a hand held detector, rather than using the more sensitive automatic laundry monitor. During the exit meeting on April 12, 1991, the licensee stated that they would begin surveying hoods using the automatic laundry monitor.

The area where individuals remove PCs when exiting the containment was very small. This created an environment where individuals removing their PCs are in close proximity to individuals still wearing potentially contaminated PCs.

Licensee management was closely monitoring the number of personnel contaminations and was evaluating ways to reduce



the number. This area will be reviewed during a future inspection.

#### 8.0 Evaluation of Leaking secondary Source

After shut down the licensee noted a large increase in the concentration of antimony in the reactor coolant. The licensee evaluated the increase and determined the source of the antimony to be one of the secondary sources. The licensee took good corrective actions and delayed the start of the refueling outage until the demineralizers sufficiently reduced the concentration of antimony. The licensee removed all the secondary sources after determining that the secondary sources were not needed to provide an adequate count rate on the source range monitors.

#### 9.0 ALARA

The inspector attended several ALARA pre-job briefings and reviewed several ALARA work packages. The briefings and work packages indicated that the licensee was effectively minimizing personnel exposures. At the time of the inspection the cumulative personnel exposures at the facility were well below the ALARA outage goal of 360 person rem.

#### 10.0 Exit Meeting

The inspector met with licensee representatives at the end of the inspection, on April 12, 1991. The inspector reviewed the purpose and scope of the inspection and discussed the findings.

