

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/90-07

Docket No. 50-244

License No. DPR-18 Category C

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

Facility Name: Genoa Nuclear Power Plant

Inspection At: Ontario, New York

Inspection Conducted: April 16 - 20, 1990

Inspector: *P. O'Connell* 4-25-90
P. O'Connell, Radiation Specialist date

Approved by: *S. Shevlin* 4/25/90
for W. Pasciak, Chief, Facilities Radiation date
Protection Section

Inspection Summary: Inspection conducted April 16 - 20, 1990 (Inspection Report No. 50-244/90-07)

Areas Inspected: This inspection was a routine unannounced inspection of the implementation of the licensee's radiological controls program during the current refueling outage. Areas reviewed included: Organization and Staffing, and External and Internal Exposure Controls. The inspector also provided input regarding ALARA and the integration of radiological controls into the maintenance process to the NRC Maintenance Team which was concurrently conducting NRC Maintenance Team Inspection No. 50-244/90-80.

Results: Within the scope of this inspection one violation was identified. The violation involved a failure to set an administrative exposure limit in accordance with licensee procedures.



DETAILS

1.0 Persons Contacted

1.1 Licensee Personnel

*D. Filion	Radiochemist.
*D. Filkins	Manager, Health Physics and Chemistry
*A. Gillet	Erosion/Corrosion Coordinator
W. Goodman	Health Physics Foreman
*P. Lewis	Nondestructive Examination Outage Coordinator
*R. Mecredy	Division Manager, Nuclear Production
F. Mis	Health Physicist
*J. Quigley	Quality Services Coordinator
B. Quinn	Corporate Health Physicist
*M. Saporito	Supervisor, Materials Engineering
*E. Selbig	Quality Control, Health Physics and Chemistry
*R. Smith	Senior Vice President, Engineering and Production
*J. Smith	Manager, Materials Engineering
S. Spector	Plant Manager
*J. St. Martin	Corrective Actions Coordinator
*K. Wachter	Eddy Current Coordinator
*R. Watts	Director, Corporate Radiation Protection
*J. Widay	Superintendent, Ginna Production

1.2 NRC Personnel

*J. Carrasco	Reactor Engineer, Region I
*J. Jang	Radiation Specialist, Region I
*A. Johnson	Office of Nuclear Reactor Regulation
*H. Kaplan	Reactor Engineer, Region I
*T. Moslak	Resident Inspector, Three Mile Island
*T. Polich	Office of Nuclear Reactor Regulation
*N. Perry	Resident Inspector, Ginna
*R. Wessman	Office of Nuclear Reactor Regulation

* Attended the exit meeting on April 20, 1990.

Other licensee personnel were also contacted during the course of this inspection.

2.0 Purpose

The purpose of this routine, unannounced inspection was to review the implementation of the licensee's radiological controls program during the current refueling outage. Areas reviewed included organization and staffing and external and internal exposure controls. The inspector also provided input regarding ALARA and the integration of radiological controls into the maintenance process to the NRC Maintenance Team which was concurrently conducting NRC Maintenance Team Inspection No. 50-244/90-80.

3.0 Organization and Staffing

The inspector reviewed the adequacy of the staffing levels of both permanent and contractor Radiation Protection Technicians (RPTs). The inspector discussed the staffing levels with cognizant personnel and observed several radiation protection (RP) work briefings and RPT job coverage of ongoing work. In general the staffing level of RPTs appeared to be adequate to provide coverage for those activities observed by the inspector.

The licensee has made improvements in the staffing of the ALARA group compared to the previous outage by having a RPT dedicated full time to ALARA planning and having another RPT dedicate approximately 75% of his time to ALARA planning. Discussions with individuals from the ALARA group and review of Radiation Work Permit (RWP) and Special Work Permit (SWP) entry logs indicated that additional outage staffing of ALARA RPTs to ensure that ALARA considerations are made in the field would be helpful. The ALARA Supervisor stated that tentative staffing plans for the next refueling outage include hiring additional RPTs for this purpose.

Shortly before the current outage two positions in the licensee's RP management organization became vacant. These positions included the Dosimetry Foreman and the Respiratory Protection and Internal Dosimetry Health Physicist. The loss of these two individuals has placed an extra workload on the remaining two Health Physicists and the Health Physics (HP) and Chemistry Manager and may have contributed to some of the concerns noted in the Section 4.0 of this report. The licensee plans on filling the position of Respiratory Protection and Internal Dosimetry Health Physicist as soon as possible. The licensee is evaluating restructuring the responsibilities of the Dosimetry Foreman and it is uncertain whether this position will be filled. The licensee plans on adding the position of Operations Health Physicist to enhance supervisory oversight of the RPTs.

4.0 External and Internal Exposure Controls

The inspector conducted several tours throughout the controlled areas of the facility. The inspector verified that areas were properly posted, barricaded, or locked as required. The inspector did note one area where the area posting could have been better situated. The inspector noted that the High Radiation Area posting on top of the pressurizer cubicle had been moved to the side and was not readily visible to individuals entering the pressurizer cubicle from the top. The RPT on the refueling floor stated that the posting had previously been positioned over the entrance but, apparently, someone had moved the posting.

The inspector noted that the licensee had recently identified two instances where High Radiation Areas, which were required by procedure to be locked, were found unlocked. The licensee had not completed their analysis of the the root causes or appropriate corrective actions to prevent recurrence. This item will be reviewed during a future inspection.

The inspector reviewed the dosimetry records of selected individuals and determined that NRC Form-4s had satisfactorily been completed for the individuals prior to allowing them to exceed 1250 mRem per calendar quarter.

While reviewing these records the inspector noted that on March 24, 1990 an individual with 1672 mRem of occupational exposure from other licensed facilities for the first calendar quarter of 1990 was given an administrative dose limit of 1973 mRem for the first calendar quarter of 1990. This resulted in the individual's exposure being administratively limited to 3645 mRem for the first calendar quarter of 1990. The inspector verified that the individual received a dose of only 144 mRem during the period of March 24 to 31 1990 and therefore the individual's total dose of 1816 mRem for the first calendar quarter did not exceed the regulatory limit of 3000 mRem per calendar quarter.

The inspector discussed this matter with the Dosimetry Clerk and the Health Physicist who was supervising the Dosimetry Clerks. Apparently, an exposure received at a previous facility during the first calendar quarter of 1990 had been overlooked when the individual's administrative dose limit was set. The licensee's oversight of this area was deficient because the program did not require supervisory or any other type of review of personnel exposure records to ensure that correct administrative dose limits were assigned. In this instance it was fortuitous that an individual's quarterly dose had not exceeded the regulatory limit.

The inspector reviewed the licensee's dosimetry procedures and noted that procedure HP-1.2, "External Exposure Limits", requires in Section 6.2.4.2 that personnel having a completed Form NRC-4 shall be administratively limited to 2000 mRem per calendar quarter. The licensee's assigning an incorrect administrative dose limit of 3645 mRem per calendar quarter to an individual is as an apparent violation of Technical Specification 6.11, Radiation Protection Program, which requires that radiation control procedures shall be adhered to for all operations involving personnel radiation exposure. (50-244/90-07-01)

The inspector observed the RP coverage for eddy current testing and tube plugging on the steam generators. While contractor RPTs provided RP job coverage for these activities, the licensee appointed permanent RPTs as coordinators for these activities. The inspector did note some discrepancy between RPTs regarding the timing of individuals who insert their arms inside the steam generator manway. One RPT stated that he would time individuals whenever any portion of an individual was inserted into the manway entrance. Another RPT stated that he only timed individuals when they inserted their arm beyond the elbow into the manway. Another RPT stated that timing was only required when individuals were working for more than five minutes with their arm inside the manway.



The inspector also observed that calculated stay time information for whole body and extremity exposures was not available at the control points for both steam generators. In addition, the licensee was not utilizing alarming or remote reading dosimeters to monitor the accumulation of dose to the individuals. In light of the fact that the licensee was controlling individual exposures based primarily on survey data and calculated stay times it appeared that more emphasis needed to be placed on determining stay times and timing entries for both whole body and extremity exposures. The licensee stated that they would evaluate their requirements for timing arm entries into the steam generators and that they were evaluating the purchase of remote reading dosimeters for steam generator work.

The inspector reviewed the licensee's program to determine the air quality of the supplied breathing air for the containment and auxiliary building constant flow breathing air system. The licensee has procedures to ensure that the breathing air system air quality meets or exceeds the Compressed Gas Association requirements for Grade D air. The inspector verified that the licensee had followed these procedures prior to initiating the supplied air system for the steam generator workers.

The inspector reviewed the licensee's method of tracking individual exposures to concentrations of airborne radioactivity, i.e. the number of hours individuals are exposed to the maximum permissible concentration (MPC-hours). While the licensee has made improvements in this area over the past year, a further improvement needs to be made in this area. Currently the licensee prints out a weekly report of the MPC-hour exposures for all individuals. These reports total the MPC-hour exposures from the beginning of the previous week through the end of the previous week, i.e. Sunday through Saturday. These reports are used to ensure the licensee takes corrective actions for individual exposures greater than 40 MPC-hours in any seven consecutive days, as required by 10 CFR 20.103(b)(2).

The inspector noted that an individual could receive a MPC-hour exposure late in the first week and another MPC-hour exposure early in the second week with the total exposure being greater than 40 MPC-hours in seven consecutive days and the licensee's program would not identify the need to take corrective actions. The inspector verified that no individual had been exposed to more than 40 MPC-hours in any seven consecutive days. The licensee stated that they would revise the method of tracking MPC-hour exposures to address this discrepancy.

5.0 Exit Meeting

The inspector met with licensee representatives, denoted in Section 1.0 of the report, on April 20, 1990. The inspector summarized the purpose, scope and findings of the inspection.