

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/84-12

Docket No. 50-244

License No. DPR-18 Priority - Category C

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

Facility Name: R. E. Ginna Nuclear Power Plant

Inspection At: Ontario, New York

Inspection Conducted: May 7 - 11, 1984

Inspectors: T. Dagon
T. Dagon, Radiation Specialist

6/14/84
date

Approved by: M. Shanbaky
M. Shanbaky, Chief, Facilities
Radiation Protection Section

6/26/84
date

Inspection Summary: Inspection on May 7-11, 1984 (Inspection Report 50-244/84-12)

Areas Inspected: Routine unannounced safety inspection of the radiation protection program including: personnel selection qualification and training; in-plant radiation protection; external exposure control; internal exposure control and ALARA implementation; the inspection involved 38 hours on site by one region based inspector.

Results: One violation was observed (details in paragraph 7.0). Two open items were reviewed and closed.

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Details

1.0 Persons Contacted

During the course of this routine inspection the following personnel were contacted or interviewed:

1.1 Licensee Personnel

- *R. W. Kober, Vice President, Electric and Steam Production
- *B. A. Snow, Plant Superintendent - Nuclear
- *D. Filkins, Manager - Health Physics and Chemistry
- *W. P. Goodman, HP Foreman
- *B. Quinn, Corporate Health Physicist
- *F. J. Mis, Plant Health Physicist
- *S. Sagaties, Plant Health Physicist
- *J. R. Supina, ALARA Coordinator/Dosimetry Supervisor

1.2 NRC Personnel

- *S. J. Collins, Chief, Project Section 2C
- *W. Cook, Resident Inspector

Other licensee or contractor employees were also contacted or interviewed during this inspection.

*Attended the Exit Interview on May 11, 1984.

2.0 Purpose

The purpose of this routine inspection was to review the licensee's radiation protection program with respect to the following elements:

- Status of Previously Identified Items
- Personnel Selection, Qualification, and Training
- In-Plant Radiation Protection Program Implementation
- External Exposure Control
- Internal Exposure Control
- ALARA Implementation

3. Status of Previously Identified Items

- 3.1 (Closed) Inspector Follow-up Item (83-07-01) Licensee to prevent unauthorized use of dosimetry. The licensee has issued matched dosimeter identification numbers and security badge numbers for all

personnel. New badge racks installed at site access. Security guards issue picture badge after TLD number is displayed by personnel entering the site.

- 3.2 (Closed) Inspector Follow-up Item (83-07-02) Review discrepancy between ALARA estimated dose and final dose. The ALARA coordinator advises the ALARA Review Committee of any job that exceeds the ALARA estimate by 25% or more. The Committee conducts a post job review in accordance with licensee Procedure A-1.6.1.

4.0 Personnel Selection, Qualification and Training

Personnel selection, qualification, and training was reviewed against criteria contained in:

- 10 CFR 19.12 "Instruction to Workers"
- Technical Specification 6.3 "Station Staff Qualifications"
- Technical Specification 6.4 "Training"
- Technical Specification 6.5.2 "Nuclear Safety Audit and Review Board (NSARB)"
- ANSI N18.1-1971 "Selection and Training of Nuclear Power Plant Personnel"
- Regulatory Guide 1.8 September 1975 "Personnel Selection and Training"

The licensee's performance relative to these criteria was determined by:

- Discussions with training department personnel
- Discussions with the Manager-Quality Assurance and review of QA audit reports.

Within the scope of this review the following improvement item was noted: The objectives and scope of audits performed by the Corporate QA organization for the NSARB need improvement to allow for identification of program weakness for management attention. In particular audits of the health physics personnel qualifications and training should be reviewed for compliance with all technical specification. The licensee stated that the conduct of QA audits was under review and would be revised as required. This matter will be reviewed during a subsequent inspection (84-12-01).

5.0 In-Plant Radiation Protection Program Implementation

The effectiveness of the in-plant radiation protection program was reviewed against criteria contained in:

- 10 CFR 20.201 Surveys
- 10 CFR 20.206 Instruction of personnel
- Technical Specification 6.11 "Radiation Protection Program"
- Procedure A-1, "Radiation Control Manual" Rev. 27
- Procedure HP-4.1 "Controlled Area Entry" Rev. 11
- Procedure HP-4.3 "Work Permit Use" Rev. 22
- Procedure A-54.6 "Health Physics Tour" Rev. 7

The licensee's performance relative to these criteria was determined by:

- Review of six special work permits (SWP) and a tour of work areas.
- Review of protective measures for the on-site movement and compacting of solid waste
- Review of licensee's health physics tour reports for January to April 1984
- Review of site QC audits of the HP function for January 1983 to April 1984

Within the scope of this review, program strengths were noted by the following:

Weekly tours by HP supervision are performed to inspect 17 potential problem areas. Results are documented for corrective action and are reviewed by the Plant Operations Review Committee (PORC).

The site QC operation conducts a quarterly review of site activities for compliance with HP procedures. The audit frequency is increased in problem areas such as occurred recently with radwaste shipments. Since January 1983, 6 scheduled and 9 unscheduled surveillances were performed. Unresolved non-compliances are presented to PORC for review and action.

6.0 External Exposure

The recording and reporting of personnel exposure was reviewed against criteria contained in:

- 10 CFR 20.102 Determination of prior dose
- 10 CFR 20.202 Personnel monitoring
- 10 CFR 20.407 Personnel monitoring reports
- 10 CFR 20.409 Notifications and reports to individuals
- Procedure HP 1.2 "External Exposure Limits" Rev. 15
- Procedure HP 1.3 "External Exposure Records" Rev. 15
- Procedure A-1 "Radiation Control Manual" Rev. 27
- IE Information Notice 81-26 part 3

The licensee performance relative to these criteria was determined by a review of records and reports. Exposure records were well maintained and personnel exposure reports were timely. Within the scope of this review, no violations were identified.

7.0 Internal Exposure Control

Internal exposure control was reviewed against criteria contained in:

- 10 CFR 20.103 Exposure of individuals to concentrations of radioactive materials in air in restricted areas.
- 10 CFR 20.401 Records of surveys radiation monitoring, and disposal.
- Procedure HP-4.3 "Work Permit Use" Rev. 22
- Procedure HP-6.1 "Contamination Surveys" Rev. 28
- Procedure HP 6.2 "Posting of Contaminated and Airborne Areas" Rev. 5
- Technical Specification 6.8 "Procedures"
- Technical Specification 6.11 "Radiation Protection Program"
- Regulatory Guide 1.33 November 1972

The licensee's performance relative to these criteria was determined from:

- Review of internal exposure records and reports
- Review of several RWP and SWP
- Discussions with HP staff and HP technicians

Within the scope of this review, the following violation was identified:

NRC regulations regarding exposure to airborne radioactivity require monitoring of the representative concentrations inhaled by the worker. Limits on these concentrations are provided in 10 CFR 20.103. Technical Specification 6.8 "Procedures," TS 6.11 "Radiation Protection Program," and Appendix A to Reg Guide 1.33 require that monitoring procedures be developed by the licensee. Licensee procedure HP-4.3 "Work Permit Use" paragraph 6.1.3 states, in part: "Information shall be given on the RWP which clearly defines ... the required monitoring ..."

A review of RWP's and SWP's indicates terms such as "air sampler every day" "continuous air sampling" and "lapel sampler" are used as special monitoring instructions. Discussions with the HP's issuing the RWP/SWP's and the job site technicians indicates various interpretations of these monitoring requirements. For example, the term "lapel sampler" to the HP writing the SWP meant a breathing zone sample with the device attached to the worker. The technician actually installed the device in a fixed location to monitor the highest area concentration (super compacting operation). The technician stated that during training at the site he was told that such flexibility is allowed. Similar differences in interpretation occurred with the other terms when discussed with different HP's and technicians.

The licensee has issued procedures providing operating instructions for the air sampling equipment. However there is no procedure that specifies technique or defines the terms used on the RWP's. There is no procedure to ensure that the technician conducting the survey obtains a representative sample as specified by the HP. This is an apparent violation of Technical Specifications 6.11 and 6.8 (84-12-02).

9.0 ALARA

The implementation of the in-plant ALARA program was reviewed against criteria contained in:

- 10 CFR 20.1 Purpose
- Regulatory Guide 8.8, "Information Relevant To Ensuring That Occupational Radiation Exposures At Nuclear Power Stations Will Be As Low As Is Reasonably Achievable"

- Regulatory Guide 8.10 "Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable"
- Procedure A-1.5 "Keeping Occupational Exposure at Ginna ALARA" Rev. 1
- Procedure A-1.6 "ALARA Committee Operating Procedure" Rev. 8
- Procedure A-1.6.1 "Documentation of "As Low As Reasonably Achievable" (ALARA) Rev. 6

The licensee's performance relative to these criteria was determined by interviewing selected personnel and examining selected records.

Within the scope of this review, the following was identified:

An effective ALARA program has been implemented by the station HP organization. However, the inspector noted that during the 1983 outage certain work involving significant man-rem exposure was directed by corporate management. The ALARA review at the corporate level was not documented. An informal ALARA review was conducted in the corporate offices guidance provided in accordance with a 1978 office memorandum. This program weakness was discussed in detail with licensee representatives. The licensee plans to develop and implement a formal corporate level ALARA commitment by June 1984. This matter will be reviewed during subsequent inspection (84-12-03)

9.0 Exit Interview

The inspector met with licensee personnel denoted in Section 1 on May 11, 1984 to discuss the scope and findings of the inspection as detailed in this report. At no time during this inspection was written material provided to the licensee by the inspector.