U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-244/80-13

Docket No. 50-244

License No. DPR-18 Priority -- Category C

Licensee: Rochester Gas and Electric Company

89 East Avenue

Rochester, New York 14649

Facility Name: R.E. Ginna Nuclear Power Plant

Inspection at: Ontario, New York

Inspection conducted: September 23-26 and November 24-26, 1980

Inspectors: K.E. Plumlee, Radiation Specialist — 4/24/81 date signed

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Approved by: P.J. Knapp, Chief, Facilities Radiation Protection Section, Technical Inspection Branch — 4/24/81 date signed

Inspection Summary:

Inspection on September 23-26, and November 24-26, 1980 (Report No. 50-244/80-13

Areas Inspected: Routine, unannounced inspection by a regional based inspector of preparations prior to a major maintenance outage, and subsequent inspection during the outage, including: procedures, advance planning and preparations, training, exposure control, posting and control, radioactive and contaminated material control, surveys, independent measurements, and corrective actions on previously identified items. Areas where work was being conducted were examined to review radiological procedures and practices. The inspection involved 50 inspector-hours on site by one NRC regional based inspector.

Results: No items of noncompliance were identified.

DETAILS

1. Persons Contacted

   a. RG&E Personnel

   *J. Bodine, QC Inspection Engineer
   **D. Filkins, Supervisor of Health Physics and Chemistry
   **W. Goodman, Health Physics Foreman
   **F. Mis, Health Physicist
   **J. Noon, Assistant Plant Superintendent
   **B. Quinn, Health Physicist
   **B. Snow, Plant Superintendent
   **R. Watts, Health Physicist

   b. NRC Personnel Present at Exit Interviews

   ***D. Johnson, Acting Senior Resident Inspector
   **K. Plumlee, Radiation Specialist
   *R. Zimmerman, Senior Resident Inspector

   * Denotes presence at the close out meeting with licensee management at 2 p.m., November 26, 1980. The meeting was scheduled early to avoid any conflict with a previously announced licensee meeting at 3 p.m. Inspection of radwaste shipping records continued later in the day.

   ** Denotes presence at the above meeting and also presence at the close out meeting concluding the pre-outage inspection effort, at 1 p.m. on September 26, 1980.

   *** Denotes presence at the 1 p.m. September 26, 1980 meeting only.

2. Licensee Action on Previously Identified Items

   (Closed) Inspector Follow Item (78-25-01): Review the computerized dosimetry record system. During this inspection the dedicated computer system was not maintaining the desired scope of dosimetry records; for example, the licensee maintained the Forms NRC-4 and -5 by hand. Later the licensee redirected this effort to use a shared computer, located in the Ginna Technical Support Center, for dosimetry records and ALARA records use. This item will be reviewed on a subsequent routine inspection within the requirements of the routine IE inspection program.

   (Closed) Inspector Follow Item (79-01-01): Review the durability of portable survey instruments. Licensee review (preventive action report 6-79) indicated the durability problem was mostly limited to Teletectors. Licensee corrective action included reinstructing the users on the handling precautions for Teletectors and for survey instruments generally. Daily pre-use verification checks are required for the portable survey instruments. No new problems were identified during this inspection (paragraph 5.c).

(Closed) Item of Noncompliance (79-01-02): Failure to perform a breathing zone air survey necessary to comply with 10 CFR 20. 103 (a) (3). Previous inspection of air sampling was documented in reports 244/79-05 (paragraph 8a) and 244/80-06(paragraph 7). The inspector reviewed the completion of corrective actions stated in the licensee letter dated February 28, 1979; and verified that the following procedures were implemented: M-52.3, Revision 5, August 1, 1979, "Incore Thimble Cleaning," and procedures HP 11.1, 11.4, 11.5.1, 11.5.2, 11.5.3, 11.10, and 11.11, for which the titles are listed in report paragraph 4.a.

No problems were identified.

(Closed) Item of Noncompliance (79-01-04): Inadequate 10 CFR 19.13 reports to three workers. Review verified that corrected reports were prepared, dated March 21 or 22, 1979. Review of recent reports did not identify any problems (paragraph 7.b).

(Closed) Inspector Follow Item (79-04-04): Review licensee control of personnel occupancy of radiation areas. The ALARA requirements are included in worker orientation training and in procedures A-1, A-1.5 and A-1.6.1, see paragraphs 4.a, 6, and 7. No items of noncompliance were identified during tours of the facility.

(Closed) Inspector Follow Item (79-04-05): Review control of film badges and TLDs. Licensee task assignment ELD 79-30 resulted in expanded badge racks and in checking at the control point to improve the control of personnel dosimetry. No items of noncompliance were identified on this inspection (paragraphs 4.a and 7.a).

(Closed) Inspector Follow Item (79-18-03): Review procedures for closing up radwaste shipping containers. Review of current procedures (paragraph 4.b) for radwaste shipping verified the incorporation of procedures for closure of containers of radioactive materials. No problems were identified (paragraph 10).

(Closed) Inspector follow item (79-18-04): Review the training of individuals who process and ship radioactive material. Review verified that the licensee had sent one or more health physics representatives to appropriate off-site seminars or training courses on February 4 and 5, February 6, February 20 and 21, April 14, July 10, and August 7, 1980, however, no written program had been formulated to train or qualify that level of personnel on NRC and DOT radioactive materials transport. This item will be inspected within the requirements of the routine IE program of inspection of transportation activities. Licensee training of operators who were involved in waste solidification was incorporated into operator and systems training procedures A-102.6 and A-102.14, these records being kept by the training coordinator.

(Closed) Item of Noncompliance (80-06-01): Failure to adhere to procedures. The inspector toured the facility on several days and observed compliance with RWP clothing instructions and acceptable industry practices. Specifically no failures to wear gloves while working on RWPs requiring gloves, and no smoking, eating, or gum chewing in controlled areas, was identified. Licensee corrective actions, documented in a letter dated August 7, 1980, appeared to be fully implemented.

(Closed) Deviation from Industry Practice (80-06-02): Intentionally handling contaminated material without gloves. The inspector observed that during this inspection the removal of protective clothing was not being performed bare-handed - see item 80-06-01 above.

3. Closeout Action on IE Bulletins and Circulars

(Closed) IE Circular 76-03 Followup (Radiation Exposures in Reactor Cavities) Inspections 244/76-22 (paragraph 6) and 244/79-01 (paragraph 2) documented the implementation of commitments made in the licensee letter dated November 11, 1976 replying to IE Circular 76-03. On this inspection the inspector toured the facility and verified the controls by observation and by interviews with personnel. No failures to identify, post, or lock high radiation areas were identfieid and the licensee commitments on this item appeared to be fully implemented.

4. Review of Radiation Protection Procedures in Effect During the Outage

Part of the inspection effort was to review the availability and adequacy of licensee procedures, and adherence to procedures, during the maintenance outage involving the presence of several hundred temporary workers.

a. Routine Procedures

The inspector reviewed the following procedures and verified adherence to the procedures by observation, by interview with personnel, or by record reviews, as applicable.

Procedure Number	Title
A-1	Radiation Control Manual
A-1.1	Locked Radiation Areas
A-1.5	ALARA Occupational Exposure
A-1.6.1	Documentation of ALARA Program

Procedure Number	Title
A-3	Containment Access
A-54.6	Health Physics Tour (weekly)
A-102.3	Health Physics Orientation Program
A-102.10	Health Physics Training and Responsibility Limits
HP-1.1	Issuing Personnel Dosimetry
HP-1.2	External Exposure Limits
HP-1.3	External Exposure Records
HP-2.1	Whole Body Counting Guide
HP 2.2	Whole Body Count Operation
HP-3.1	Exposure Reports to Individuals and the NRC
HP-3.2	In-Plant Reporting of Current Exposures
HP-2.3	TLD Reader Calibration
HP-2.5	Whole Body Count Evaluation
HP-4.1	Controlled Area Entry
HP-4.3	Work Permit Use
HP-5.1	Area Radiation Surveys
HP-5.2	Posting of Radiation Areas and Container labelling
HP-6.1	Contamination Surveys
HP-6.2	Posting of Contaminated and Airborne Areas
HP-11.1	Iodine in plant-air drying tube method
HP-11.4	High volume air sampling
HP-11.5.1	NMC Constant air monitor AM-3D calibration
HP-11.5.2	NMC Constant air monitor AM-21 Calibration

Procedure Number	Title
HP-11.5.3	NMC Constant air monitor AM-22 I calibration
HP-11.10	Air sampling with SIERSAT low volume air samplers
HP-11.11	Gas sampling and analysis utilizing a 35 cc glass bulb
HP-12.1	Usage of Respirators
HP-12.2	Medical Checks, Fitting and Training of Personnel Using Respirators
HP-12.3	Selection of respirators
HP-12.4	Fitting and testing of Respirators
HP-12.6	Issuance Proper use and Return of Respirators

No items of noncompliance were identified.

b. Transport Procedures

The inspector verified by interview with the health physicist assigned the responsibility for transport procedures, and by review of records of shipments, that the following procedures have been implemented. A survey of a shipment was verified and closures of 55-gallon drums were verified.

Procedure Number	Revision No.	Revision Date	Title (abbreviated)
M 18.6	2	4/18/80	Handling, loading and unloading of CNSI Transport Cask CNS-8-120 Model LL-50100.
QCIP-21	3	1/31/80	Shipping Package CNS 8-120 Inspection
RD-9	4	2/10/79	Preparing waste for shipment or storage
RD-10	7	2/28/79	Shipping radioactive material
RD-10.1	0	4/18/80	RG&E Radioactive material shipment record forms

RD-10.4	0	4/9/80	Radwaste shipping to NECO at the Beatty Nevada Site
RD-10.4.1	0	4/9/80	NECO Radioactive Shipment Record (RSR)
RD-10.4.2	0	4/9/80	NECO Certification Form
RD-10.4.3	0	4/9/80	State of Nevada Certification Form
S-4.1.25	0	10/6/80	Checking drums for free standing liquids

No failures to adhere to procedures were identified.

The inspector noted that none of the above procedures appeared to address the road worthiness of the vehicle and this was brought to the licensee's attention (paragraph 10).

5. Advance Planning and Preparation

a. Increased Health Physics Staff

Three contract personnel were hired before the outage to plan out and set up for the major jobs.

Eight senior and four junior contract technicians and clerks were hired for the outage.

Review of the resumes of eleven of the above individuals did not identify any lack of qualification in accordance with ANSI-N 18.1, 1971, "Selection and training of nuclear power plant personnel", requirements for technician in responsible positions.

Review of selected records independently verified that the above resumes were consistent with the actual times spent at various facilities (see paragraph 6.c.).

b. Mockups and Special Training

The inspector noted that contract personnel generally were selected and assigned to jobs on which they had prior experience on site or at similar facilities.

The licensee maintained mockups and spare units on which personnel were trained for steam generator entries and maintenance of plant components.

c. Supplies and Equipment

The licensee appeared to maintain adequate stocks of protective clothing, respiratory equipment, decontamination materials and special equipment necessary for the outage.

Automatic restock procedures were in use for protective clothing and gloves.

Review of the availability of health physics instruments as of September 24, 1981 showed that the following 100 instruments were available and another 9 instruments were out of service, needing repair. Of the total of four Teletectors, two were usable on that date, and this was 50% availability as compared to the 85% availability of the remaining 35 portable beta-gamma survey instruments and the overall 91% availability of the 109 instruments.

Type of Instrument	Usable	Out of Service
Portable beta-gamma survey		
Telectors	2	2
Others	30	5
Friskers	18	none
Air Samplers and CAMS	40	1
Area Monitor instruments	6	1
Others (Alpha and Neutron)	4	none

As documented in paragraph 2, item 79-01-01, the licensee has established training of the users in the handling precautions necessary with portable survey instruments.

No new problems with equipment availability were identified.

6. Training of New Arrivals on Site

a. Indoctrination Training

The inspector interviewed a few individuals and each stated he had received indoctrination training on arrival.

The inspector witnessed training and no omissions of information required by 10 CFR 19.12 were identified. The inspector verified that records were maintained of this training.

b. RWP Qualification Training

The inspector interviewed a few individuals whose records indicated they were RWP qualified and each stated he had received training and passed a written examination.

Review of training curricula, attendance, and examination records did not identify any problems.

c. Contract Health Physics Technican Site-Specific Training and Qualification

Review of qualification scores of health physics technicians described in paragraph 5.a, indicated that a few of the apparently more experienced individuals required remedial action, or barely passed, but there was no obvious explanation for their relatively marginal scores. Less experienced individuals did not appear to have marginal or failing scores. The licensee representative stated that their job performance was acceptable.

Interviews with these individuals, and observation of their work, did not identify any marginal or unacceptable level of knowledge of the job. No items of noncompliance were identified.

7. Exposure Control

a. Wearing the Assigned Dosimetry Devices

The inspector observed that the workers continue to be required to pick up their assigned badges, unassisted, as they pass the badge rack in the badge house.

Review of radiation work permits did not identify any inadequate dosimetry selections.

Observation during entering and exiting the facility and during facility tours did not identify any failure to wear the assigned dosimeters.

b. Dosimetry Records

Review of dosimetry records did not identify any errors, failure to prepare Forms NRC-4 and NRC-5, or failure to report exposures to workers on termination in compliance with 10 CFR 19.13 and 10 CFR 20.408.

c. Review of Personnel Exposure Authorization

The inspector selected 10 individual's files for record review. Completed Form NRC-4's were identified in each file.

No examples were identified of exposure in excess of 10 CFR 20.101 limits and conditions. No examples were identified of failure to follow guidance in licensee procedure A-1, "Radiation Control Manual", which requires, during refueling, specific authorization to exceed 200 mrem/day, 500 mrem/seven consecutive days, and 2,000 mrem/calender quarter.

8. Review of Respiratory Protection Programs

a. Adherence to Internal Exposure Limits

Observation of working conditions during the inspection, and review of records of work permits, air samples, contamination surveys, nasal swipes, skin contamination, and whole body counts did not identify any exposure to airborne radioactive materials in excess of 10 CFR 20.103 limits.

b. Temporary Engineering Controls

The inspector verified that exposures to airborne radioactive materials were controlled by decontamination of the surfaces, use of plastic covers and tents to prevent spreading contamination, and use of controlled ventilation systems to prevent exposures to unacceptable concentrations of airborne radioactive materials.

c. Licensee Evaluations of Controls

The inspector noted that the records of the licensee evaluations appeared to verify the selection of acceptable equipment, the use of authorized protection factors, the application of preventive measures, and the evaluation of internal exposures.

d. Respiratory Protection Training and Respirator Fitting and Testing

The inspector verified (paragraph 7.c) that the medical check, fitting and training of personnel using respirators was documented and the procedure, HP-12.2 (paragraph 4.a), appeared to be fully implemented.

Observation of training and fitting did not identify any problems in the qualification of users of respirators.

e. Respirator Cleaning and Maintenance

The inspector observed the collection process for used respirators, and respirator cleaning and maintenance. The inspector observed the users as they checked the respirators before they were donned and as they tested the respirator fit each time the respirator was donned.

No problems were identified.

9. Posting and Control of Radiation Areas, Airborne Radioactivity Areas, and Contaminated Areas

The inspector toured the facility on several days of the inspection and verified the adequacy of posted information, confinement, and survey information. The inspector also surveyed the outdoor radioactive waste storage area fence and a trailer being loaded with material to be transported.

No items of noncompliance were identified.

10. Radioactive and Contaminated Materal Control

The inspector observed the licensee's management of used protective clothing, contaminated trash, and radioactive waste. In addition to the verification of survey information and posted information, described above, the inspector verified container labels, transport information and shipping documents.

The inspector reviewed the records of the following shipments (see paragraph 4.b for list of applicable procedures): 1980 shipments nos. 3, 5, 34, and 35 to 39.

The inspector noted that the applicable procedures appeared to be fully implemented.

The inspector noted that none of the above records appeared to address the road worthiness of the tractor and trailer used to transport radioactive materials. (see below)

11. Exit Interview

Interviews were conducted on September 26 and on November 26, 1980, with the personnel denoted in paragraph 1, to review the inspection findings.

Survey instrument availability was reviewed (paragraph 2, item 79-01-01).

Radioactive waste shipping was discussed (paragraphs 4.b and 10). The licensee representative stated that a temporary change notice would be provided addressing transport vehicle road worthiness.

Licensee commitments were reviewed, paragraph 2. The licensee plans to persist in improving the computerized dosimetry records system.