

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 84-20

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: August 6-10, 1984

Inspectors: Richard K. Struckmeyer
R. K. Struckmeyer, Radiation Specialist

8/28/84
date

Jan A. Cioffi
J. A. Cioffi, Radiation Specialist

8/28/84
date

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

8/30/84
date

Inspection Summary:

Inspection on August 6-10, 1984 (Inspection Report No. 50-244/84-20)

Areas Inspected: Routine, announced inspection of operational radiological environmental monitoring program, including management controls, the licensee's program for quality control of analytical measurements, training, and implementation of the radiological environmental monitoring program. The inspection involved 60 hours of direct inspector effort by two region-based inspectors.

Results: Within the areas inspected, no items of noncompliance were identified.

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DETAILS

1. Individuals Contacted

- C. Anderson, Manager of Quality Assurance
- R. Burt, Assistant Training Coordinator
- J. Catlin, Environmental Technician
- *D. Filion, Radiochemist
- *D. Filkins, Manager, Health Physics and Chemistry
- *B. Quinn, Corporate Health Physicist
- S. Sagaties, Plant Health Physics Technician
- *B. Snow, Superintendent, Nuclear Production

*Indicates those present at the exit interview on August 10, 1984.

2. Management Controls

The inspector reviewed the licensee's management controls for the Radiological Environmental Monitoring Program (REMP), including assignment of responsibility, program audits, and corrective actions for identified inadequacies and problem areas in the program.

a. Assignment of Responsibility

The inspector reviewed the organization and administration of the REMP. The program is the responsibility of the Plant Radiochemist who reports to the Manager of Health Physics and Chemistry. The REMP utilizes one full-time technician for sample collections in the field and for sample analyses in the environmental laboratory. Additional HP and Chemistry technicians are available to perform these duties as necessary.

b. Program Review and Audits

The inspector reviewed licensee audits of Technical Specifications requirements for 1982 and 1983. These audits included determinations that the requirements for collections and analyses of environmental samples had been met, but did not address the adequacy of procedures or effectiveness of personnel in meeting the goals of the REMP.

3. Licensee Program for Quality Control of Analytical Measurements

The licensee described the methods it utilizes for quality control of analyses performed in its environmental laboratory. The majority of analyses required by Technical Specifications consist of gross gamma, gross beta, and gamma isotopic analyses. One radiochemical separation is performed for analysis of I-131 in milk. The licensee participates in the EPA Interlaboratory Comparison program. The laboratory gamma and beta detectors are checked prior to each use with sources of known activity, and the results plotted on control charts. The licensee stated that

because of the limited amount of chemistry performed in the laboratory, it was not deemed necessary to utilize any additional intralaboratory quality control methods such as spiked, duplicate, or blank samples. The inspector's review of the EPA Interlaboratory Comparison Program results indicated the existence of discrepancies between EPA results and the licensee's results in several instances, and that the reasons for the discrepancies had not yet been documented. The licensee stated that the discrepancies were recognized, but that in most cases there were several possible reasons for the discrepancies. The inspector stated investigation of discrepancies, with attempts to correct their causes, was considered good practice and was common among laboratories handling environmental samples. The licensee stated that it would, in the future, document its investigation of, and corrective actions for such discrepancies in its annual REMP report. This will be reviewed in a future inspection of this area (50-244/84-20-01).

4. Implementation of Radiological Environmental Monitoring Program

a. Direct Observation

The inspector examined selected environmental monitoring stations, including particulate and iodine air sampling equipment, as well as direct radiation (TLD) stations. The licensee met the Technical Specifications requirements in this area.

The licensee stated that, subsequent to the last inspection in this area, a new TLD system had been placed in service for both personnel monitoring and environmental monitoring applications. Dosimeters for the two applications were segregated, and environmental dosimeters were not used for personnel monitoring. Although the licensee had contracted for services to evaluate its dosimeter for personnel monitoring purposes, it had made no such arrangement for the environmental application. The inspector discussed with the licensee the recommendations of Regulatory Guide 4.13 which references ANSI N545-1975, both of which are entitled "Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications." Eight specific tests are recommended for determining the performance of a TLD system, and thus its suitability for environmental applications. Both the Regulatory Guide and the ANSI document state that the ability of a TLD system to satisfy the recommended tests can be met by reference to test results provided by a vendor or other source. The licensee stated that it had not performed these tests, and did not possess documentation from any other source concerning these tests. The inspector also discussed methods of quality control of environmental TLD results; in particular, the International Environmental Dosimeter Intercomparison Project, sponsored by DOE, NRC, and EPA; and noted the usefulness of such a program for periodic reevaluation of the accuracy of the environmental TLDs. The licensee stated that it had not been participating in a program of this type. The inspector discussed with the licensee the methods by which these issues could be resolved. The issue of

performance testing would be resolved either by (1) initiating a program to perform the recommended tests or by (2) obtaining documentation from another source that is specific to the type of dosimeter used by the licensee. The issue of periodic reevaluation (quality control) would be resolved by arranging for participation in the next scheduled intercomparison project.

The inspector stated that the ability of the licensee's TLD system to properly measure and record environmental radiation would remain unresolved pending documentation of performance tests and successful participation in a recognized intercomparison study. (50-244/84-20-02).

b. Review of Reports and Records

The inspector reviewed the 1983 annual Radiological Environmental Monitoring Program report, and determined that it provided a comprehensive summary of the sampling, analyses, and results from the licensee's radiological environmental monitoring program.

The inspector reviewed procedures pertaining to the Radiological Environmental Monitoring Program and noted that the licensee uses well stated and defined procedures for control of activities within the REMP.

The inspector also reviewed logs of laboratory analyses and found that they were generally complete. However, it was noted that the logs of the results of gross beta analyses of water and of air particulate filters were incomplete after July 1, 1984 and July 6, 1984, respectively.

The required analyses (gross count determinations) had been performed, but the net results had not yet been calculated. The licensee stated that this was because a new detector recently had been installed as a replacement for older equipment, and a final determination of its efficiency had not yet been made. The inspector noted that the procedure covering this analysis had not been updated to change the reference to the type of detector. The inspector stated that the completion of the log for these analyses and the revision of procedures that reference the beta detector (e.g., CE-5.1, "Collection and Calculation of Beta Activity for Environmental Air Samples," CE-4.1, "Collection and Analysis of Fallout Samples," and CE-4.2, "Collection and Gross Activity Determination on Water Samples") will be reviewed in a future inspection (50-244/84-20-03).

5. Training and Qualifications of Personnel

The licensee stated that four technicians are available for performing the functions associated with the Radiological Environmental Monitoring Program. One of these is designated as the Environmental Technician; the

remaining three are primarily Health Physics Technicians who have received sufficient training in the requirements of the REMP to serve as backup personnel as necessary. Training records were reviewed for these four technicians.

The licensee uses qualification check-off forms for its health physics technicians to document the supervisor's review of the technicians' abilities to perform procedures corresponding to their job assignments. The inspector determined that the training record for the environmental technician was incomplete because his supervisor's review had not been documented on the appropriate form. The licensee stated that this individual is not qualified as a health physics technician and is not covered by the training program for health physics technicians. The licensee has no job description or training program specifically for the position of environmental technician.

The licensee stated that it will document the training for the environmental technician and will provide a specific training program and job description for this position. This item will be reviewed in a subsequent inspection (50-244/84-20-04).

6. Meteorological Monitoring

The licensee's meteorological monitoring program had been reviewed in depth as part of inspection 50-244/84-08 during the period April 23-27, 1984. This area will be reviewed during a future inspection.

7. Unresolved Item

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during this inspection is discussed in Paragraph 4.

8. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection at the site on July 13, 1984. The inspector summarized the purpose and the scope of the inspection and findings. At no time during this inspection was written material provided to the licensee by the inspector.