U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-244/88-16

License No. DPR-18 Priority -- Category C

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

Facility: R. E. Ginna Nuclear Power Plant

Location: Ontario, New York

Inspection Conducted: August 8 through September 11, 1988

Inspectors: C. S. Marschall, Senior Resident Inspector, Ginna
N. S. Perry, Resident Inspector, Ginna
A. Sidpara, Resident Inspector, Three Mile Island

Approved by: _____ 10/4/88
C. J. Cowgill Chief, Reactor Projects Section 1A Date

Summary:

Areas Inspected: Routine inspection by the resident inspectors of station activities including plant operations, Engineered Safety Feature system walkdown, operational safety verification, surveillance testing, maintenance, radiological protection, physical security, written reports, periodic and special reports, action on previous inspection findings, and surveillance activity review.

Results: One violation with three examples of failure to follow procedures was identified (section 4.a). During subsequent investigation, the inspectors identified several concerns related to a lack of awareness of the significance of procedure steps, lack of a questioning attitude, inadequate surveillance results review, lack of timely corrective action, lack of worker awareness of Technical Specifications and failure to communicate deficiencies to the Shift Supervisors in a timely manner. An unresolved item dealing with the use of written maintenance work instructions without prior PORC review was identified (section 2.e). A review of PORC minutes revealed inadequate review of procedure changes to comply with 10 CFR 50.59 (section 3). Sixteen previously identified inspection items were closed and two items were updated (section 3).

DETAILS

1. Persons Contacted

During this inspection period, inspectors held discussions with and interviewed operators, technicians, engineers and supervisory level personnel. The following people were among those contacted:

J. C. Bodine, Nuclear Assurance Manager
*D. L. Filkins, Chemistry & Health Physics Manager
R. W. Kober, Senior Vice President, Production and Engineering
R. A. Marchionda, Training Manager
*T. A. Marlow, Maintenance Manager
*R. C. Mecredy, General Manager Nuclear Production
*T. A. Meyer, Superintendent Ginna Support Services
J. T. St. Martin, Station Engineer
*T. R. Schuler, Operations Manager
L. F. Smith, Operations Supervisor
R. E. Smith, Vice President, Production and Engineering
*S. M. Spector, Superintendent Ginna Station
*J. A. Widay, Technical Manager
*R. E. Wood, Supervisor Nuclear Security

*Denotes persons present at exit meeting on September 14, 1988.

2. Functional or Program Areas Inspected

a. Review of Plant Operations (71707)

At the beginning of the inspection period, the plant was operating at approximately 100 percent power. Reductions to approximately 80 percent power were conducted on August 20, 21, and 31, 1988 for preventive maintenance of 4160 volt output breaker 1G. A turbine runback to approximately 70 percent power occurred on August 25, 1988, due to a failure of the dropped rod rod stop bistable in channel N44 of the power range Nuclear Instrumentation (NI). The bistable was replaced and the NI channel was restored to normal operation. On September 3, 1988, the B Emergency Diesel Generator automatically started when a failure occurred in one of four devices sensing degraded voltage on Emergency Safeguards Bus 16. Operators transferred loads to the diesel, the undervoltage sensing device was repaired and returned to service, and the normal supply to bus 16 was restored on September 4, 1988.

On September 8, 1988, an Unusual Event was declared when licensee security was notified by the Wayne County Sheriff's department that a bomb threat had been received. Although security management did not consider the threat credible, perimeter patrols were increased, site access was closed, and a search was conducted. Nothing unusual was discovered dur-

ing the search; based on information from the Rochester Police Department, the licensee concluded the bomb threat was not credible and terminated the Unusual Event at 12:33 a.m. on September 9, 1988.

During hot weather in this inspection period, thermal efficiency was reduced due to elevated lake water temperature resulting in reduced condenser vacuum. Licensee action to combat elevated temperatures consisted mainly of the addition of temporary fans to aid cooling of motor-driven equipment, including the Main Feedwater Pumps and Station Air Compressors.

b. Engineered Safety Feature (ESF) System Walkdown (71710)

A complete walkdown of accessible portions of the Refueling Water Storage Tank (RWST) system was performed to verify its operability. The inspectors verified the licensee's lineup matched plant drawings and as-built configurations. System components were checked for labeling, cleanliness, and state of repair. No conditions adverse to safety were identified.

c. Operational Safety Verification (71707)

On a daily basis, inspectors observed shift turnover and conduct of operations in the control room. Proper control room staffing was maintained and control room access was controlled. Operators were attentive and responsive to plant parameters and conditions. A failure to adhere to plant procedures was identified and is discussed in section 4.a.

d. Monthly Surveillance Observation (61726)

Inspectors observed portions of surveillance test procedures to verify test instrumentation was properly calibrated, approved procedures were used, work was performed by qualified personnel, Limiting Conditions for Operation were met, and the system was correctly restored following testing. The following surveillance activities were observed:

-- Periodic Test (PT)-2.8, Revision 18, "Component Cooling Water Pump System", effective date July 24, 1986, observed August 8, 1988.

-- PT-12.2, Revision 41, "Emergency Diesel Generator 1B", effective date August 10, 1988, observed August 17, 1988.

Programmatic deficiencies in surveillance testing are discussed in section 4.

e. Monthly Maintenance Observations (62703)

The inspectors observed portions of various safety-related maintenance activities to determine that redundant components were operable, activities did not violate Limiting Conditions for Operation, required administrative approvals and tagouts were obtained prior to initiating work, approved procedures were used or the activity was within the "skills

of the trade", appropriate radiological controls were implemented, ignition/fire prevention controls were properly implemented, and equipment was properly tested prior to returning it to service.

PT-21, Revision 8, "Cleaning Boric Acid Tank Level Sensing Lines", effective date October 15, 1986, observed September 2, 1988. Step 6.0 instructs maintenance personnel: "Note: Steps may be marked N/A if not performed." This could be interpreted to allow sensing lines to be left isolated, omitting notification of the control room and "N/A" to be marked in the signature blocks for these steps. The Station Superintendent indicated the intent of step 6.0 was to allow portions of the procedure to be performed on an as-needed basis and indicated the step would be rewritten to clarify its intent. During a plant tour on September 7, 1988, the inspectors identified several deficiencies; the details were provided to the maintenance manager and the maintenance supervisor - mechanical. Numerous valves, many safety-related, were found without stems lubricated. The maintenance manager indicated that although no formal lubrication program presently exists, one will be developed and implemented as it is developed, with high priority safety-related valves first. The program is expected to be fully developed by the end of 1990. Other deficiencies include: inconsistent mounting of base plates for the service water and safety injection pumps; lack of requirements, such as type/grade or torque values, for safety-related pump bolts and washers; safety-related valves painted in a sloppy manner; and loose valve packing nuts and conduits in safety-related systems. Based on the deficiencies identified, the inspectors questioned the effectiveness of maintenance supervision as well as management plant tours. The inspectors will review the licensee's actions for dealing with the deficiencies identified.

Review of PORC minutes and maintenance records revealed use of Maintenance Work Instructions (MWIs) to control safety related maintenance without PORC approval. Inspectors informed the licensee that Technical Specifications 6.8.1 and 6.8.2 require PORC approval of controls over safety related maintenance not within the skills normally possessed by qualified personnel. Although the licensee does not agree that PORC approval is required for MWIs, they committed to use PORC approved procedures for control of safety related maintenance until a more effective means for review of safety related maintenance controls can be determined or an interpretation can be obtained from NRR. This will remain an unresolved item pending NRC review. UNRESOLVED ITEM (50-244/88-16-01).

f. Radiological Protection Review (71709)

During this inspection period, the resident inspectors verified on a random basis: health physics management conducted periodic plant tours and was aware of current plant conditions; RWPs were implemented properly; dosimetry was properly worn in controlled areas; dosimeter readings were recorded properly; access control at entrances to high radiation areas was adequate; personnel use contamination monitors as required when exiting controlled areas; and postings and labeling were in compliance

with regulations and procedures. The licensee plans to open major areas of the Auxiliary and Intermediate Buildings by November 1, 1988 to access with street clothes; currently protective clothing is required. The cleanup program began in early August and is currently on schedule. The inspectors have observed the cleanup activities and will continue to monitor activities during the cleanup process.

g. Physical Security Review (71881)

During this inspection period, the resident inspectors verified on a random basis: x-ray machines and metal and explosive detectors were operational; Protected Area (PA) and Vital Area (VA) barriers were well maintained; access control during security turnover was adequate; personnel were properly badged for unescorted or escorted access; and the minimum guard compliment was maintained with a director for onsite security activities over at least one 24 hour period. Additionally, no obstructions to or hiding places near the PA were identified, and illumination in the PA was adequate.

h. Review of Written Reports of Nonroutine Events (90712)

Written reports submitted to the NRC were reviewed to determine whether details were clearly reported, causes properly identified and corrective actions appropriate. The inspectors also determined whether assessment of potential safety consequences had been properly evaluated, generic implications were indicated, events warranted onsite follow-up, reporting requirements of 10 CFR 50.72 were applicable, and requirements of 10 CFR 50.73 had been properly met.

The following LERs were reviewed (Note: dates indicated are event dates):

-- 88-006, 7/16/88, Loss of Offsite Power Due to a Main Substation Fault Causes Both Emergency Diesel Generators to Automatically Start and Accept Load.

-- 88-006, (Revision 01), 7/16/88, Loss of Offsite Power Due to a Main Substation Fault Causes Both Emergency Diesel Generators to Automatically Start and Accept Load.

Revision 01 was issued due to an error in 88-006 identified by the inspectors. The B S/G steamline isolation reset pushbutton was referred to; the word 'reset' was correctly deleted in revision 01.

-- 88-007, 8/4/88, Containment Particulate Radiation Monitor Deenergizes Due to an Open AC Fuse Causing an Inadvertent Containment Ventilation Isolation.

No unacceptable conditions were identified.

i. Review of Periodic and Special Reports (90713)

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.3 were reviewed by the inspectors. This review included the following considerations: reports contained information required by the NRC; test results and/or supporting information were consistent with design predictions and performance specifications; and reported information was valid. Within this scope, the following report was reviewed by the inspectors:

-- Monthly Operating Report for July 1988.

The report was considered adequate to meet regulatory requirements.

3. Action on Previous Inspection Findings (92701)

(Closed) Inspector Follow-up Item (78-CI-18). Circular 78-18 discussed the effectiveness of area sprinklers and cable tray fire barriers constructed of ceramic fiber blankets in preventing damage to cables as a result of exposure to flammable liquid fires. Licensee review determined that no cable trays of the type discussed in the Circular are used at Ginna. This item is closed.

(Closed) Inspector Follow-up Item (79-CI-05). Circular 79-05 addressed interstitial communication of fluid in stranded conductors exposed to differential pressure. Licensee review of cable applications within containment at Ginna indicated that the configurations used are not subject to this problem. This item is closed.

(Closed) Inspector Follow-up Item (79-BU-01). Bulletin 79-01, Revision A addresses Environmental Qualification (EQ) of Class IE equipment. The requirements contained in the Bulletin have been superseded by the regulatory requirements contained in 10 CFR 50.49. This item is administratively closed.

(Closed) Inspector Follow-up Item (79-BU-1). Bulletin 79-01, Revision B also addresses EQ of Class IE equipment, and has been superseded by 10 CFR 50.49. This item is administratively closed.

(Closed) Inspector Follow-up Item (79-BU-6C). Licensee actions in response to Bulletin 79-06, Revision C, were reviewed in Inspection Report 50-244/79-13. The item was inadvertently left open due to administrative error. This item is closed.

(Closed) Inspector Follow-up Item (81-23-01), Review Licensee's Sampling Frequency of Nonradioactive Systems. Various procedures were reviewed to verify the sampling frequencies specified in the open item have been incorporated into station procedures. This item is closed.

(Closed) Inspector Follow-up Item (82-21-02) Residual Heat Removal (RHR) Subbasement Flood Protection. Rochester Gas and Electric (RG&E) Engineering Work Request (EWR) 4788 provides a modification to correct the problem of standing water in the RHR subbasement, scheduled to be installed during the 1989 refueling outage. The modification will be reviewed as part of the routine inspection program. This item is closed.

(Closed) Inspector Follow-up Item (82-23-02). A licensee commitment to review ANSI 15.8 and notify Region I concerning application of the guidelines into the Special Nuclear Material Control and Accounting Program was documented by this open item. Licensee review and comments on incorporating ANSI 15.8 were documented in a letter from RG&E to Region I dated February 15, 1983. This item is closed.

(Closed) Unresolved Item (83-12-02), Leaking Steam Generator Plugs. This item documented problems with leaking Westinghouse explosive plugs. The inspector noted the industry and the NRC had not determined what actions were required to deal with the plugs identified. The licensee has embarked on a program to recover tubes in which the plugs are installed, or when this is not possible, replace the plugs. This program will be conducted on a prioritized basis considering potential safety significance, exposure to workers, technological advances and budgetary constraints. This item is administratively closed.

(Open) Inspector Follow-up Item (83-17-04), Inservice Testing of Safety Injection (SI) Pump Bearing Temperatures. EWR 3881 has been generated to upgrade the SI pump recirculation line from 3/4 inches to 1 inch. The modification is scheduled for completion during the 1989 refueling outage and will be reviewed as part of the routine inspection program. This item remains open.

(Closed) Inspector Follow-up Item (83-23-02), Weaknesses in Modification processes. Concerns identified in this item will be addressed in reviews of modifications installed during the 1989 refueling outage. This item is administratively closed.

(Closed) Inspector Follow-up Item (84-06-01), Effectiveness of Quality Control (QC) Organization. Concerns with the effectiveness of the QC organization are documented under open item 88-05-01. These concerns will be addressed in reviewing corrective action for the more current item. This item is closed.

(Closed) Inspector Follow-up Item (84-20-04), Document Training and Job Description for Environmental Technician. A certificate of training completion and a job description were reviewed by the inspector. This item is closed.

(Closed) Inspector Follow-up Item (85-01-04), QC Oversight of Non-radwaste Shipments. Procedure RD-10, revision 16, effective 5/6/88, was reviewed to insure that QC hold points had been added to the control of non-radwaste shipments. This item is closed.

(Closed) Inspector Follow-up Item (85-01-06), QC Department to Receive Necessary Training to Verify Health Physics Classification of Radwaste. Licensee lesson plans and attendance sheets were reviewed to determine the required training was being conducted for QC inspectors. This item is closed.

(Closed) Inspector Follow-up Item (85-04-04), Weakness in Maintenance Record Keeping, Machinery History, Maintenance Work Request Completion, and QC Surveillance Reports. The concerns identified in this item are also the subject of Noncompliance Item 88-05-01. This item is administratively closed.

(Closed) Violation (87-04-03), Failure to Perform 10 CFR 50.59 Review of Lead Shielding. Inspection Report 50-244/87-04 documented the removal of the lead shielding; lack of reviews to meet the requirements of 10 CFR 50.59 is addressed by Unresolved Item 88-08-01. This item is administratively closed.

(Open) Unresolved Item (88-08-01), Lack of Reviews to Meet the Requirements of 10 CFR 50.59. In addition to the lack of reviews associated with two Nonconformance Reports (NCRs) documented in this item, a lack of 10 CFR 50.59 reviews associated with procedure changes was identified in this reporting period. In response to concerns expressed by the inspectors, the licensee partially implemented a program to perform the required reviews prior to the end of the reporting period. This item remains open pending review of a fully implemented program to satisfy the requirements of 10 CFR 50.59 for NCRs and procedure changes. This issue was also addressed in a recent NRC team inspection (50-244/88-15) for future NRC Region I review.

4. Surveillance Activity Review (71707)

a. Review Details

Discussions with operations personnel and review of the results of surveillance procedures PT 12.1, "Emergency Diesel Generator 1A", Revision 38, effective date July 15, 1988, performed on August 8 and 9, 1988 revealed programmatic weaknesses in several areas. On August 8, 1988, the acceptance criteria for fuel oil pressure, 33 to 43 psig, was not met; actual fuel oil pressure was 29.9 psig. On August 9, 1988, measured lube oil temperature, 186 degrees Fahrenheit, was outside the procedural acceptance range of 160 to 180 degrees Fahrenheit. Although the procedure states, in part, the purpose is to demonstrate the 1A Emergency Diesel Generator is operable by verifying various electrical and mechanical parameters are monitored during performance of the test, operators failed to declare the diesel inoperable when stated acceptance criteria were not met. This is an example of a procedure nonadherence violation.

Interviews with plant personnel revealed operators were aware the diesel vendor technical representative had indicated lube oil temperatures up to 200 degrees Fahrenheit were acceptable for sustained operation. However, the procedure had not been changed to reflect the vendor information. Discussions with the Station Superintendent and Results and Test personnel resulted in a commitment to change the diesel surveillance

procedures to reflect vendor information on acceptable lube oil temperatures, and to review all surveillance procedures on safety related equipment for acceptance criteria prior to next use of the procedure. Accordingly, the inspector concluded that the diesel generator was operable in accordance with Technical Specifications (TS).

On August 17, 1988, PT-12.2, Emergency Diesel Generator 1B, Revision 41, effective date August 10, 1988, was used to verify operability of the B diesel generator. Review of the procedure prior to its completion revealed the acceptance criteria had not been changed to reflect vendor information. Operators were unaware of problems previously identified concerning acceptance criteria and made a temporary change to the procedure after discussions about operability with the inspector.

As a result of the identified violation, an audit on a sampling basis was conducted by the inspectors of surveillances performed in the last six months by plant technical disciplines. Two additional procedural implementation problems were identified:

-- On March 7, 1988, electrical maintenance personnel performing PT-11.1, Heat Trace Circuitry, Revision 9, effective October 16, 1987, failed to notify operations personnel of inoperable heat trace circuitry; although the completed procedure was reviewed by the Electrical Maintenance Supervisor, Head Control Operator (HCO), Shift Supervisor (SS), and Results and Test personnel, the inoperable heat trace circuitry was not identified. This is another example of procedural nonadherence and inadequate review of surveillance results.

-- Numerous examples of partially filled out Daily Chemical Analysis Results data sheets were found in the control room. PC-1.3, Daily Chemical Analysis Results, Revision 21, effective May 24, 1988 requires completed data sheets be submitted to the Shift Supervisor. Operators interviewed, including the SS and HCO, were unsure which portions of the data sheet are required to be completed for any given day. This is an additional example of inadequate review of surveillance results.

As a result of routine inspection, one additional example of a procedural nonadherence was discovered on September 7, 1988. Procedure HP-5.1, Area Radiation Surveys, Revision 24, effective May 12, 1988, requires specified areas of the plant will be surveyed weekly and survey maps with the most recent results and date posted at the access control area. Inspectors discovered weekly survey maps posted at the access control area were not the most recent results as required; more recent surveys had been performed and were on file.

The above noted procedural nonadherences collectively represent an apparent violation of TS 6.8.1 (VIO 50-244/88-16-02).

b. Summary of Findings

Inspection resulting from the procedural violation identified the following programmatic weaknesses: lack of procedural compliance, lack of awareness of the significance of procedural steps, lack of a questioning attitude, and inadequate surveillance results review. These weaknesses, viewed collectively, illustrate inadequate management oversight to insure maximum effectiveness of plant managers, Shift Supervisors and maintenance personnel in complying with Technical Specifications.

5. Exit Interview (30703)

At periodic intervals during the inspection, meetings were held with senior facility management to discuss inspection scope and findings. During this inspection period, one violation and one unresolved item were identified. The violation deals with the licensee's failure to declare the A Emergency Diesel Generator inoperable as required by procedure. The unresolved item deals with the use of written maintenance work instructions without prior PORC review.