

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Inspection Report 50-244/95-20

License: DPR-18

Facility: R. E. Ginna Nuclear Power Plant
Rochester Gas and Electric Corporation (RG&E)

Inspection: October 22, 1995 through December 2, 1995

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12/29/95
Date

Inspection Summary:

Core, regional initiative, and reactive inspections performed by the resident inspectors and the regional staff are documented in the areas of plant operations, maintenance, engineering, and plant support.

Results:

See Executive Summary.

EXECUTIVE SUMMARY

R. E. Ginna Nuclear Power Plant

Inspection Report No. 50-244/95-20

Operations: The plant operated at full power (approximately 97 percent) throughout the inspection period. The facility was operated safely and in accordance with licensee procedures. Except for surveillance tests not performed on one PORV block valve, the plant was operated in conformance with technical specifications (see Engineering). Operating logs and records accurately identified equipment status or deficiencies. No operational inadequacies or concerns were identified.

Maintenance: During the previous inspection period, the licensee identified a short circuit in the C-service water (SW) pump motor windings. The motor was sent to an offsite repair facility to be rewound. During this inspection period, the refurbished C-SW pump motor was received from the vendor and was reinstalled. The inspector concluded that the licensee's decision to refurbish the C-SW pump motor, as opposed to procuring a new motor, resulted in timely restoration of the pump to service.

In recent months, the C-charging pump discharge relief valve has lifted and stuck open on three separate occasions. The cause may be related to abnormal vibrations in the pump suction piping. Piping vibration apparently caused a weld in the C-charging pump plunger hood vent line to crack. In response to the repeated problems with the C-charging pump, the licensee developed an extensive diagnostic procedure to determine the cause of the abnormal suction line vibrations. This test will be performed after the C-charging pump is returned to service.

Engineering: In response to the Individual Plant Evaluation determination that the largest initiating event contributor to core damage frequency was loss of instrument air (IA), the licensee initiated several modifications to improve IA system reliability. During this inspection period, the licensee replaced one of the three IA system reciprocating air compressors and desiccant dryers with a two-stage rotary screw type air compressor and heat-of-compression dryer. Two reciprocating air compressors were previously required for normal instrument air system operation, but the replacement unit alone has sufficient capacity to supply all normal system loads. The inspector considered the licensee's decision to install a higher capacity unit to be a positive measure to increase IA system reliability.

The licensee currently operates with both pressurizer power operated relief valves (PORV) block valves closed due to PORV leakage: The Technical Specifications require stroking the block valves through one full cycle quarterly, unless the block valves are already closed. The licensee considered that the provision to suspend operability testing on these valves also exempted them from the ASME Section XI quarterly inservice tests. However, based on the inspector's questions, the licensee determined that the inservice tests are required when the valves are closed. The licensee did

successfully stroke test both block valves. Both performed within their maximum closing time limits, with adequate available margin. The block valves were closed on different dates such that only one of the block valves was not tested during the previous two quarters; this will be reported to the NRC. This item is unresolved pending further licensee and NRC review (50-244/95-20-01).

RG&E's project to replace both steam generators during the next refueling outage is currently on schedule and preliminary construction activities are in progress. The major construction activities now completed or currently in progress are 1) the excavation of a full-scale steam generator access port in the containment dome mock-up; 2) installation of the equipment support and work platform around the containment dome; 3) modification of the containment facade structure to support a material storage enclosure and a personnel comfort station; 4) construction of a containment access facility (approximately 90% complete); 5) reinforcement of a portion of the underground 34.5 kilovolt power line duct bank and modification of the site perimeter fence to support passage of the Lampson crane and steam generators; 6) upgrades to the main site parking lot to support assembly and load test of the Lampson crane; and 7) dredging the barge slip at Bear Creek harbor.

Plant Support: The licensee implemented a very good radiological environmental monitoring program and an effective meteorological monitoring program. The plant computer modem for the secondary meteorological monitoring tower experienced intermittent failures since February 1995, and was unable to collect data during those times. However, efforts to replace the modem have been good. The licensee expects to have the modem replaced and operable by the end of December 1995. The licensee collected water from the onsite northeast environmental well to sample for potential leakage from the spent fuel pool. The licensee's continuing efforts to assess potential leakage from the spent fuel pool appear to be satisfactory.

A cement block shield wall around the refueling water storage tank was removed before the licensee recognized that it constituted part of the basis for an exemption from a 10 CFR 50 appendix R fire barrier. The shield wall was not initially recognized as an appendix R component. The licensee subsequently declared the fire barrier inoperable and stationed an hourly fire watch. A temporary fire barrier was installed, however this action was not completed within the seven days allowed by the Updated Final Safety Analysis Report. Accordingly, the licensee will submit a thirty day special report to the NRC outlining the cause of the inoperability and their plans for restoring the barrier to operable status. Although this event was a violation of 10 CFR 50 Appendix R, Section III.G.2, it was of minor significance and is being treated as a Non-Cited Violation.

Safety Assessment/Quality Verification:

The Nuclear Safety Audit Review Board (NSARB) held a quarterly board meeting on October 25-26, 1995, to review recent issues related to plant safety. The board reviewed written reports of plant incidents and events, and the findings of various audits and assessments conducted by NSARB subcommittees and Quality Assurance groups. The issues were contained in recent LERs,

10CFR21 reports, and included a variety of other subjects such as human performance issues, the licensee's conversion to improved technical specifications, the steam generator replacement project, and the status of ongoing pressure vessel integrity issues. The board held in-depth discussions on all agenda items and confirmed that the actual root causes were properly identified, that the appropriate corrective actions were initiated, and that the important safety consequences and potential generic issues were fully evaluated. The NSARB also held a special meeting on November 27, 1995 to review a pending License Amendment Request (LAR) to the NRC related to the improved technical specification changes and the implementation of 10 CFR 50, Appendix J. All NSARB activities observed during this inspection period were effective in assuring an independent oversight of plant activities.

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DETAILS

1.0 OPERATIONS (71707)

1.1 Operations Overview

The plant operated at full power (approximately 97 percent) throughout the inspection period. There were no significant operational events or challenges during the inspection period.

1.2 Control of Operations

The inspectors observed plant operation and verified that the facility was operated safely and in accordance with licensee procedures and regulatory requirements. This review included tours of the accessible areas of the facility, verification of engineered safeguards features (ESF) system operability, verification of proper control room and shift staffing, verification that the plant was operated in conformance with technical specifications and that appropriate action statements for out-of-service equipment were implemented, and verification that logs and records were accurate and identified equipment status or deficiencies. No operational inadequacies or concerns were identified.

2.0 MAINTENANCE (62703, 61726)

2.1 Maintenance Activities

2.1.1 Routine Observations

The inspector observed portions of plant maintenance activities to verify that the correct parts and tools were utilized, the applicable industry code and technical specification requirements were satisfied, adequate measures were in place to ensure personnel safety and prevent damage to plant structures, systems, and components, and to ensure that equipment operability was verified upon completion of post maintenance testing. The following maintenance activities were observed:

- C-Service Water Pump Motor Replacement - The inspector observed portions of the C-service water pump motor installation following motor rewind. No deficiencies were observed. This activity is further discussed in section 2.4 of this report.
- Reactor Coolant System Average Temperature Instrument Defeat Switch Replacement - An intermittent problem developed in the automatic rod control system that produced occasional unnecessary inward rod motion. Troubleshooting determined that the cause was signal noise in one channel of reactor coolant system average temperature (Tavg) instrumentation, and localized the source to a channel defeat switch. The inspector observed portions of the switch replacement. The instrument and control (I&C) technicians were well prepared to perform the maintenance; for example, a stand had been constructed to support the associated panel during work. The technicians were very knowledgeable about job-specific requirements, and the requirements for quality assurance verifications.



The inspector concluded that the above activities were successfully performed in a well controlled manner.

2.2 Surveillance and Testing Activities

2.2.1 Routine Observations

Inspectors observed portions of surveillances to verify proper calibration of test instrumentation, use of approved procedures, performance of work by qualified personnel, conformance to limiting conditions for operation (LCOs), and correct post-test system restoration. The following surveillances were observed:

- Periodic Test (PT)-32A, "Reactor Trip Breaker Testing - "A" Train," observed October 30, 1995
 - Spurious spiking was observed on radiation monitor R-29 during the test. The problem was noted in the comments section of the test package, and a work order (19504559) was initiated to troubleshoot the problem.
- PT-2.7.1, "Service Water Pumps," observed November 13, 1995
 - Performed for acceptance testing of the C-service water pump motor following motor rewind.

The inspector determined through observing the above surveillance tests that operations and test personnel adhered to procedures, that test results and equipment operating parameters met applicable acceptance criteria, and that redundant equipment was available during testing for emergency operation.

On October 23, 1995, the licensee attempted to perform PT-16M-T, "Auxiliary Feedwater Turbine Pump - Monthly." The test could not be completed because operation of the recirculation flow control valve (AOV-4291) could not be demonstrated due to inability of the B-steam generator flow control valve (AOV-4298) to adequately reduce flow. A problem with the main control board controller for AOV-4298 had been identified earlier (see inspection report 50-244/95-17). As a result, a work package had already been prepared for replacement of the valve position controller on the main control board. The controller was replaced and PT-16M-T was successfully completed on October 24, 1995.

2.3 Licensee Review of Foreign Material Exclusion Controls

As a result of recent concerns within the site maintenance organization over foreign material exclusion (FME) controls, the licensee formed a task group to review the current FME practices and controls at the Ginna station. The group met on several occasions to discuss the concerns at Ginna and to examine potential parallels they may have had with several significant industry events in recent years that involved foreign material intrusion into plant systems and components. The task group compiled most of RG&E's administrative and procedural guidance on FME controls to evaluate their effectiveness and to make comparisons with guidance at other nuclear utilities. On October 13, 1995, the group issued an FME Action Plan that provided an overview of the FME strengths and weaknesses at Ginna, and made recommendations for enhancing the

existing practices prior to the next refueling outage (April 1996). Most of the recommended enhancements focused upon work controls in and around open plant systems; improving FME training for all plant personnel; highlighting FME concerns within the engineering organizations; fully documenting and tracking FME deficiencies; and communicating management expectations for FME to all personnel.

In late October 1995, the licensee initiated ACTION Reports on two recent incidents where loosely controlled FME practices allowed significant amounts of concrete dust to enter into a safety-related pump area, and a Class B quality assurance (QA) storage area. As a result of these incidents, the Ginna Production Superintendent directed the FME Task Group to develop comprehensive and formal administrative requirements for FME controls within all site organizations. The task group examined various means to proceduralize and implement improved FME standards within the maintenance, operations, engineering, construction services, refueling, and training organizations at Ginna. Additional special actions were developed to reduce the potential for foreign objects to enter the spent fuel pool, and to identify specific quality control (QC) inspection points for FME controls during work on plant equipment and structures. As of this inspection, the task group had developed a draft administrative procedure (IP-HSE-2) and was preparing a plan for special FME training for plant personnel. The inspector considered the efforts of this task group to be good initiatives and very timely for strengthening the FME practices at Ginna prior to the next refueling outage. The effectiveness of improvements in this area will be evaluated in future inspections.

2.4 (Update) C-Service Water Pump Motor Replacement

On October 4, 1995, while preparing to perform a service water (SW) system surveillance test, a Results and Test (R&T) technician noted an acrid odor in the vicinity of the C-SW pump. Subsequent troubleshooting determined the cause to be a turn-to-turn short circuit in the motor windings. The motor was sent to an offsite motor refurbishment facility to be rewound. Additional details of this event are presented in inspection report 50-244/95-17.

During this inspection period, the refurbished C-SW pump motor was returned to the plant and reinstalled. Acceptance testing was completed on November 13, 1995, and the C-SW pump was returned to service on November 15, 1995. The inspector observed portions of the acceptance testing and considered it to be well controlled. The inspector concluded that the licensee's decision to refurbish the C-SW pump motor, as opposed to procuring a new motor, had resulted in timely restoration of the pump to service. The licensee is examining various options to improve long term reliability of the SW pump motors, including procurement of new motors.

2.5 C-Charging Pump Maintenance and Testing

The chemical and volume control system at Ginna uses three high head positive displacement charging pumps for reactor coolant system inventory control and chemical addition. These pumps are not part of the emergency core cooling system, but are safety significant in that at least one pump is required to



maintain injection flow to the reactor coolant pump shaft seals. During normal operations, two pumps are operated. A minimum of one pump is required to be operable by technical specifications.

On August 22, 1995, operators determined that the C-charging pump discharge relief valve (RV-283) had lifted. This condition was indicated by flow noise and vibration in the discharge line to the volume control tank. The cause of the relief valve lifting was not apparent since there had been no system transients and no recent maintenance performed that would affect the valve. The C-charging pump was declared inoperable and RV-283 was replaced. Following its return to service, operators noted that the C-charging pump suction line, and other associated piping, continued to vibrate more than normal.

On October 21, RV-283 again lifted for no apparent reason. The valve was replaced, but then lifted a third time on November 13, 1995. The suction piping vibrations continued throughout the current inspection period. During troubleshooting, the licensee determined that the vibrations could be stopped by closing the suction valve for the C-charging pump; however, the source of the vibrations was not determined. On November 24, 1995, a weld in the C-charging pump plunger hood vent line was found to be cracked. The pump was declared inoperable and remained so, due to unavailability of repair material, for the balance of the inspection period.

In response to the repeated problems with the C-charging pump, the licensee developed an extensive procedure to determine the cause of the abnormal suction line vibrations. Maintenance procedure EM-788, "Testing Charging System Suction Line Vibrations," measures parameters such as vibration, flow, pressure, and temperature with various combinations of charging pumps in operation. This test will be performed after the C-charging pump is returned to service.

The inspector will continue to monitor the licensee's troubleshooting of the C charging pump suction line vibration and corrective actions for other recent mechanical problems with the charging pumps as discussed in Inspection Report 50-244/95-17.

3.0 ENGINEERING (71707, 37551)

3.1 In-Service Testing Requirements for PORV Block Valves

On November 14, 1995, the licensee performed quarterly surveillance test PT-2.3, "Safeguard Valve Operation," in accordance with the ASME Code Section XI inservice test (IST) requirements for safety-related valves. PT-2.3 normally includes a stroke test of the pressurizer power-operated relief valve (PORV) block valves MOV-515 and MOV-516, and measures the valves' stroke time in the closing (i.e., safety) direction. However, the licensee did not perform a closing stroke test of these valves on November 14th because both valves were already closed. MOV-515 was closed on April 28, 1995, and MOV-516 on October 10, 1995, to isolate minor leakage that existed in both PORVs (see inspection report 50-244/95-17). The test procedure contains a note indicating that the block valves need not be stroke tested if they are already

closed. The note is based upon a provision in the plant Technical Specifications (TS), Section 4.3.4.2, which states that the PORV block valves need to be demonstrated operable every 92 days (during plant operation) by operating the valves through one full cycle unless the valves are already closed. The licensee considered that TS Section 4.3.4.2 provided an exemption from the Section XI tests when the valves are closed during plant operation. The licensee did not declare the PORVs or the block valves inoperable because the PORV leakage is minor, and the block valves can still function if the PORVs are needed for emergency operation.

The inspector considered that the TS surveillance requirements in Section 4.3.4.2 appeared to exempt the licensee only from the normal periodic operability testing of these valves when they are closed, but did not exempt them from the stroke tests required by ASME Code Section XI. Technical Specification Section 4.2.1 states that the IST program at the Ginna Station shall be in accordance with the Quality Assurance Manual, which in turn stipulates that MOV-515 and -516 must be exercised and stroke time tested in the closed direction once per quarter. The IST program does not contain a formal exemption from the Section XI stroke tests when these valves are closed.

The inspector discussed these concerns with the licensee and with NRC staff personnel in the NRR Mechanical Engineering Branch to resolve the apparent conflict between the TS allowance to suspend operability testing, but to still continue IST stroke testing when the block valves are closed. The licensee concluded that TS section 4.3.4.2 does not exempt the licensee from the ASME Section XI requirements and that both valves should be stroke tested. Valves MOV-515 and -516 were subsequently tested on November 15, 1995. Both valves were successfully stroked within their maximum time limits, with approximately 18% and 19% available margin in each valve, respectively.

Since MOV-516 was only recently closed, it was previously stroke tested by PT-2.3 during the quarterly surveillance tests performed on May 16, and August 15, 1995. However, since MOV-515 was closed on April 28, 1995, it did not receive the same quarterly tests in May or August. Not performing the quarterly IST stroke test for MOV-515 is reportable to the NRC since it represents a condition prohibited by the TS. The licensee stated that a licensee event report (LER) will be issued for the two IST tests not performed in May and August 1995 on MOV-515, and the LER will report any prior instances where the IST tests were not performed when the block valves were closed during plant operation. Pending NRC review of the LER and the licensee's corrective actions, this item is unresolved (URI 50-244/95-20-01).

3.2 C-Instrument Air Compressor Replacement

In Generic Letter No. 88-20, the NRC requested all licensees for nuclear power plants to perform plant examinations for severe accident vulnerabilities. Among the purposes of these Individual Plant Evaluations (IPEs) was to identify hardware and procedural modifications that would help prevent or mitigate severe accidents. The licensee's IPE (Level 1 and 2), based on probabilistic risk assessment (PRA), was submitted on March 15, 1994 and is currently under review by the NRC. In this assessment, the licensee

determined that the largest initiating event contributor to core damage frequency was loss of instrument air (IA). Although the licensee subsequently determined that some of the assumptions related to instrument air failures were overly conservative, several modifications were initiated to improve the reliability of the IA system. The licensee is in the process of reperforming their PRA analyses.

During this inspection period, the licensee completed replacement of one of the three existing IA system reciprocating air compressors and desiccant dryers with a two-stage rotary screw type air compressor and heat-of-compression dryer. Whereas two reciprocating air compressors were required to be in operation to supply IA loads, the replacement unit alone has sufficient capacity to supply all IA system loads.

The inspector reviewed plant change record (PCR) 95-015, "Instrument Air System Upgrade," which was the governing document for replacement of the C-IA compressor. This record included a change impact evaluation, a 10 CFR 50.59 safety review form (which determined that a safety evaluation was not required), an engineering analysis of the upgrade, drawings, and installation instructions. The inspector noted no deficiencies in this package, and considered that the decision to install a higher capacity unit was a strength. Some problems were experienced during installation and acceptance testing. These problems are currently under review by the licensee as part of an evaluation of the PCR system. The inspector will examine the results of this review during a future inspection.

3.3 (Update) Steam Generator Replacement Project

RG&E's project to replace both steam generators (SGs) during the next refueling outage (March 1996) is currently on schedule and onsite preparation activities are ongoing. Overall, the project continues to be well managed and coordinated between RG&E and Bechtel. The detailed outage schedule for SG replacement activities was completed on November 30, 1995. The major construction activities now completed or currently in progress are as follows:

- A test excavation commenced on a full-scale steam generator access port in the containment dome mock-up. Throughout December and January, the mock-up will be used to confirm the methodology for containment concrete excavation and restoration, rebar removal and reconstruction, containment liner plate removal and rewelding, radiological work controls, and personnel training.
- Installation of an equipment support and work platform ("CROWN") around the containment dome is ongoing. The platform will be used to support concrete excavation, liner plate cutting and removal, and containment restoration. The platform anchors have been set into the containment concrete and erection of the structural steel is approximately 75% complete.
- Modification of the containment facade structure is complete. Reinforcements to the steel framework support a material storage enclosure and personnel comfort station that will be installed adjacent to the containment dome work area.



- Construction of the new containment access facility (CAF) is approximately 90% complete. Work remains to complete the interior spaces for health physics and radiological protection personnel, other worker support areas, and the control point for containment access during the outage. Construction of a personnel access bridge from the CAF to the intermediate building was initiated, and modification of the intermediate building wall was begun at the end of the bridge where the new security door for containment access will be located.
- Preparations to reinforce the underground 34.5 kilovolt power line duct bank are complete. A concrete slab will be poured over the duct bank so that it will support the heavy loads passing over it. The duct bank houses the station's electrical output conductors, and lies beneath the Lampson crane and SG haul route inside the site's protected area.
- Modification of the site perimeter fence was completed to facilitate timely access for the Lampson crane and steam generators.
- Upgrades to the main site parking lot are in progress for assembly of the Lampson crane. A 100 ft X 600 ft area of the parking lot will be used to assemble and load test the Lampson crane before bringing it inside the protected area.
- Dredging of the barge slip at Bear Creek harbor is complete. The harbor is two miles east of the site and is being dredged and upgraded to provide a docking facility for arrival of the new SGs. Delivery of the new SGs are still on schedule for arrival at Bear Creek in February 1996.

4.0 PLANT SUPPORT (71750, 84750)

4.1 Radiological Environmental Monitoring Program Inspection

4.1.1 Management Controls

The inspector reviewed the licensee's organization for implementing the radiological environmental monitoring program (REMP) and the meteorological monitoring program (MMP), and discussed with the licensee program responsibilities and changes made since the last inspection, conducted July 1994. There have been no significant changes in the organization regarding either the REMP or MMP and there have been no changes in the above programs since the previous inspection.

4.1.2 Quality Assurance Audits

The inspector reviewed the following Nuclear Quality Assurance audits:

- Audit Number 94-25:GFS, Audit of Ginna Station Radwaste and 10 CFR 20 Programs (July 18, 22, 1994)
- Audit Report AINT-1995-0010-GFS, Audit of Radiation Protection, Chemistry and Radwaste (June 26-July 31, 1995)

The audits had been conducted by members of Nuclear Quality Assurance and a technical specialist and covered the stated objectives of the audit scope for the REMP and the MMP. No items of safety significance were identified. The inspector noted that the audits were thorough and of sufficient technical depth to assess the REMP and MMP.

4.1.3 Annual Radiological Environmental Operating Report

The inspector reviewed the Annual Radiological Environmental Operating Report for 1994, as well as the selected analytical data for 1995. The report provided a comprehensive summary of the results of the REMP around the Ginna site and met the TS reporting requirements. The reviewed results indicated that all samples were collected and analyzed as required by the TS. The report was complete, and no obvious omissions or anomalous data were identified.

4.1.4 Direct Observations and Procedures

The inspector examined selected sampling stations to determine whether samples were being obtained from the locations designated in the TS and whether air samplers were operable and calibrated. The sampling stations included air samplers for iodines and particulates, the composite water sampling stations, milk and vegetation locations, and thermoluminescent dosimeter (TLD) stations for measurement of direct ambient radiation. All air sampling equipment at the selected locations was operational at the time of the inspection, and the water compositors were operating and taking samples. The inspector witnessed the licensee collect milk samples. The licensee collected the samples in accordance with the appropriate procedure. Environmental sampling arrangements were as specified in the TS, and TLDs were placed at locations designated in the TS. The inspector also noted that the licensee collected and analyzed more samples than required.

The inspector reviewed the licensee's implementing procedures for the REMP. The procedures contained guidance for sample collection and preparation, analysis of environmental samples, and laboratory quality control. The inspector determined that the procedures provided sufficient guidance and instruction to ensure consistency and quality in the implementation of the REMP. The inspector also reviewed the licensee's air sampler calibration procedure and records. Calibration of the vacuum gauges and orifices were performed according to the specified frequencies. All results of these calibrations were within the licensee's specified acceptance criteria.

Based on the above review, the inspector determined that the licensee continued to implement a very good REMP.

4.1.5 IE Bulletin 80-10

As part of this inspection, the inspector reviewed the licensee's monitoring program regarding IE Bulletin 80-10, "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release to Environment." The licensee does not have in place a routine sampling/monitoring program of onsite storm drains and/or wells. There were no requirements to have such a

program. However, since the licensee had taken steps to quantify leakage to the residual heat removal (RHR) pit, (see Inspection Report 95-15 for details) efforts were made to sample the northeast (NE) well onsite to validate or refute potential leakage to the groundwater and environment beyond site boundary (the licensee suspects the approximately one cup per day leakage into the RHR pit is from the SFP). The licensee's analysis of the water from the NE well indicated nothing above background. On November 16, 1995, the licensee collected and analyzed another sample from the well. No H-3 was detected above background. Based on the above, there is no indication of detectable leakage into the groundwater.

4.1.6 Quality Assurance and Quality Control for Analytical Measurements

The inspector reviewed the licensee's program for Quality Assurance (QA) and Quality Control (QC) to determine whether the licensee had adequate controls with respect to sampling, analyzing samples, and evaluating data for implementing the REMP.

The quality control program for analysis of environmental samples was conducted by the licensee's laboratory. The program consisted of measurements of duplicate and split samples. The laboratory participated in an interlaboratory comparison (EPA cross-check) program required by TS. The inspector reviewed the results of the QA and QC programs and noted that the results were within the acceptance criteria. The licensee aggressively investigated and identified any discrepancies, where necessary, and had made appropriate corrections.

Based on the above reviews and discussions with the licensee, the inspector determined that the licensee continues to maintain effective QA and QC programs.

4.1.7 Meteorological Monitoring Program (MMP)

The inspector examined the licensee's meteorological monitoring equipment calibration procedures and most recent calibration results to determine whether the instrumentation and equipment were operable, calibrated, and maintained. Members of the I&C Department calibrate and maintain the sensors on the primary and secondary meteorological monitoring towers, including strip chart recorders in the control room and at the towers. Calibrations were performed semiannually as required by TS. All reviewed calibration results were within the licensee's defined acceptance criteria. The inspector determined that the calibration procedures contained sufficient guidance and instruction to perform calibrations of meteorological equipment effectively.

During a review of the two most recent meteorological instrumentation calibration results, the inspector noted that the licensee identified a wiring discrepancy at the tower during a calibration performed in October 1994. Contrary to the as-built drawing, the wind speed wires, which lead from the 250-foot and 150-foot sensors on the tower to the transmitter in the equipment building had been reversed. Technicians from I&C Special Projects corrected the wiring at that time; however, an action report or similar assessment describing reasons for the discrepancy had not been conducted. The



inspector reviewed selected archived meteorological data before, during, and after the time period in question and determined that there appeared to be no obvious anomalous data as a result of the reversed wiring. The licensee stated that an ACTION report would be written, an assessment would be performed to ensure the wiring at the tower is correct, and that corrective actions to prevent recurrence would be documented. Supporting documentation would be provided to the NRC.

The inspector also noted that the modem which transmits meteorological data from the secondary tower to the Power Plant Computer System (PPCS) had experienced intermittent failures since February 1995. This does not appear to affect data collection because the licensee has the capability to retrieve data from the strip chart recorder located at the base of the secondary tower. The licensee was aware of the problem and had initiated action to replace the modem with a new unit by the end of December 1995.

Based upon assessment of the information provided by the licensee and observations of performance, the inspector determined that the above concerns were not safety-significant issues and that the licensee continued to maintain a very good MMP.

4.2 Refueling Water Storage Tank Fire Barrier

The refueling water storage tank (RWST) is a 338,000 gallon tank in the auxiliary building. The tank extends vertically from the basement, through the intermediate and operating levels of the building. There is a six-inch gap between the tank and the floors where the tank penetrates these two levels. After original construction, eight-foot high concrete block walls were built around the RWST on the intermediate and operating levels to provide radiation shielding. The current radiation levels around the RWST no longer warrant shielding, and the concrete block walls were to be removed to support a seismic upgrade of the RWST. Work was initiated under a balance-of-plant work permit and removal of the operating level shield wall was completed on October 12, 1995.

10 CFR 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," established requirements for fire protection features for fire areas that contain structures, systems, or components important to safety. Among these fire protection features are fire barriers. Ginna station was granted an exemption from the requirement for a fire barrier penetration seal in the gap between the RWST and the operating level floor (two fire zones in the auxiliary building are the basement/intermediate level and the operating level) based, in part, on the presence of the concrete block shield wall around the RWST on the operating level. On October 27, 1995, the station fire protection engineer became aware that the RWST shield wall had been removed, and that the exemption was therefore no longer valid.

The licensee responded by declaring the fire barrier inoperable and stationing an hourly fire watch. An ACTION report was initiated to enter the event into the licensee's corrective action system. A temporary fire barrier, consisting of ceramic fiber packed into the gap between the floor and the RWST, was

installed. This action was completed on November 28, 1995, which exceeded the seven days allowed by the Updated Final Safety Analysis Report, Table 9.5-2, "Fire Protection System Requirements." Accordingly, the licensee will submit a thirty day special report to the NRC outlining the cause of the inoperability and plans for restoring the barrier to operable status.

The inspector considered that one of the principle factors that contributed to this event was that the shield wall was not initially recognized as an Appendix R component, and its removal was therefore planned as a balance-of-plant work item. The planning and review required for a balance-of-plant work permit is not as extensive as for a safety related work permit, which limited the possibility that the problem would be identified during package preparation. Although this event constituted a violation of 10 CFR 50 Appendix R, Section III.G.2, the inspector considered that it was of minimal safety significance, based on the availability of other Appendix R systems in the auxiliary building. Also, it was identified by the licensee and appropriate corrective actions were taken. Accordingly, this event is being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy. The inspector will review the thirty day special report on the event it is issued.

5.0 SAFETY ASSESSMENT/QUALITY VERIFICATION (71707)

5.1 Nuclear Safety Audit and Review Board (NSARB) Meetings

On October 25-26, the NSARB held a scheduled quarterly meeting at the Ginna station to review recent issues related to plant safety. The NSARB was comprised of seven RG&E corporate and site managers, one retired RG&E operations supervisor, and two non-RG&E nuclear utility managers. The board reviewed written reports of plant incidents and events that were also presented orally by station managers. In addition, the findings of various audits and assessments conducted by NSARB subcommittees and Quality Assurance groups were presented to the board. The significant issues reviewed included recent LERs on 1) The complete loss of instrument air inside containment; 2) The loss of offsite power circuit 751 due to a lightning strike; 3) The loss of offsite power circuit 751 due to an electrical storm disturbance; and 4) The secondary plant transient and reactor trip resulting from loss of the B-circulating water pump motor. The board reviewed recent 10CFR21 reports on a improperly configured service water valve and on defective emergency diesel generator fuel oil pumps. The NSARB QA/QC Subcommittee Chairman also presented their recent evaluation of the station's new corrective action system (ACTION Reports). The NSARB reviewed and evaluated a variety of other subjects such as human performance issues related to the recent main generator hydrogen leakage and main turbine bearing failure events, an assessment of the licensee's conversion to improved technical specifications, an overview of the steam generator replacement project, and the status of ongoing pressure vessel integrity issues.

The board members conducted in-depth discussions on all of the above items to confirm that the actual root causes were properly identified, that the appropriate corrective actions were initiated, and that the important safety consequences and potential generic issues were fully evaluated. As a result



of the NSARB's deliberations, the board chairman assigned several formal follow-up action items to plant managers, and requested that they report back to the next NSARB meeting with results. The board also requested that the station perform a formal self assessment in the area of procurement.

The inspector considered that the NSARB effectively performed its fundamental responsibility for independent safety oversight of plant operations and activities. After conducting most of its business, the board chairman requested that the non-RG&E board members caucus among themselves and report on their observations of NSARB strengths and weaknesses. These members provided a very objective assessment of the board's processes and activities, and recommended areas where the board could enhance their oversight responsibilities. The recommendations were readily accepted by the board and efforts to incorporate them will be undertaken in future meetings.

On November 27, 1995, the NSARB held a special meeting to review a pending License Amendment Request (LAR) to the NRC related to the improved technical specification changes and the implementation of 10 CFR 50, Appendix J. The licensee intends to implement "Option B" to Appendix J, which permits the use of a performance-based containment leak test program if certain criteria are satisfied. The board approved and the licensee submitted this LAR to the NRC.

5.2 Periodic Reports

The inspectors routinely review periodic reports submitted by the licensee pursuant to Technical Specification 6.9.1. The inspectors verify that the reports contained information required by the NRC, that test results and/or supporting information are consistent with design predictions and performance specifications, and that reported information is accurate. During this inspection period, the following report was reviewed:

- Monthly Operating Report for October 1995

No unacceptable conditions were identified.

6.0 ADMINISTRATIVE

6.1 Exit Meetings

At periodic intervals and at the conclusion of the inspection, meetings were held with senior station management to discuss the scope and findings of inspections. The exit meeting for the radiological environmental monitoring program inspection (section 4.1 of this report, conducted October 23-27, 1995) was held by Ms. Laurie Peluso on October 27, 1995. The exit meeting for the current resident inspection report 50-244/95-20 was held on December 4, 1995.