

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-254/84-11(DRP); 50-265/84-10(DRP)

Docket No. 50-254; 50-265

License No. DPR-29; DPR-30

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Quad-Cities Nuclear Power Station, Units 1 and 2

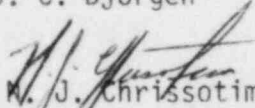
Inspection At: Quad-Cities Site, Cordova, IL

Inspection Conducted: June 24 through August 5, 1984

Inspectors: A. L. Madison

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Approved By:  W. J. Chrissotimos, Chief
Projects Section 2C

8-17-84
Date

Inspection Summary

Inspection on June 24 through August 5, 1984 (Reports No. 50-254/84-11(DRP); 50-265/84-10(DRP))

Areas Inspected: Routine, unannounced inspection by the resident inspectors of previous inspection findings; operational safety; maintenance; surveillance; Licensee Event Reports; IE bulletin followup; IE information notice followup; TMI action plan followup; review of licensee's monthly performance report; followup on regional requests, followup on 10 CFR Part 21 reports; and independent inspection. The inspection involved a total of 242 inspector-hours onsite by three NRC inspectors including 49 inspector-hours onsite during off-shifts. Results: Of the 15 areas inspected, two items of noncompliance were identified (failure to perform calibration of safety related instruments - paragraph 5.b; inadequate fire barrier - paragraph 15.c).

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DETAILS

1. Persons Contacted

- *N. Kalivianakis, Superintendent
- T. Tamlyn, Assistant Superintendent for Operations
- D. Bax, Assistant Superintendent for Maintenance
- *L. Gerner, Assistant Superintendent for Administration
- *D. Gibson, Quality Assurance Supervisor
- *G. Spedl, Technical Staff Supervisor
- *D. Rajcevich, Master Instrument Mechanic
- R. Roby, Senior Operating Engineer

The inspector also interviewed several other licensee employees, including shift engineers and foremen, reactor operators, technical staff personnel and quality control personnel.

*Denotes those present at the exit interview on August 3, 1984.

2. Action on Previous Inspection Findings

(Closed) Open Item (265/79-10-01(DPRP)): Three persons were promoted who did not meet the requirements of Repairman, per ANSI 18.1. The inspector has verified that the licensee has instituted adequate measures to prevent recurrence.

(Closed) Open Item (254/84-04-05(DPRP); 265/84-03-02(DPRP)): Revise QAP 300-3 to reflect Generic letter 82-12. This issue was submitted to NRR for resolution. It has been determined that an exemption granted prior to issuance of Generic Letter 82-12 still applies and, therefore, no revisions are required.

No items of noncompliance or deviations were identified in this area.

3. Operational Safety Verification

- a. The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of July. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of Unit 1 and 2 reactor buildings and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During

the months of June, July, and August, the inspector walked down the accessible portions of the Standby Gas Treatment System of Unit 1 and 2 to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

- b. During this report period, Unit 1 remained in cold shutdown for a refueling outage. Unit 2 was in operation at the beginning of the report period and, except for minor reductions in power to accommodate testing and load dispatcher requests, remained at full power until August 5, 1984, when an automatic reactor scram was experienced. This is discussed in paragraph 9 of this report. On August 6, 1984, Unit 2 returned to power operation.
- c. As part of a modification to the Standby Gas Treatment System (SBGT), a heater isolation switch was jumpered out of the circuit on August 1, 1984.

On August 2, 1984, electrical maintenance was returning a battery charger to service. When the feed breaker to the charger was closed, the bus tripped due to a fault in the charger. This led to an isolation of the normal reactor building ventilation. One train of the SBGTS auto started and tripped; the second train was started and also tripped. An Unusual Event was declared at 9:25 a.m. The cause of the SBGTS failing was that power to the heaters was lost. The power was lost because the jumpers shorted out the heater control transformer rather than the heater isolation switch. While the jumper request was filled out properly and the terminals were correctly identified from the prints, the prints did not correspond to the breaker wiring as it existed in the plant.

The SBGTS was restored at 5:35 p.m., August 2 and a 10-hour functional test was initiated. The Unusual Event was terminated at 6:35 p.m., August 2.

The resident inspectors were investigating the root causes of this event at the close of this inspection period. The completion of this investigation will be tracked as an open item (265/84-10-01(DRP)).

No items of noncompliance or deviations were identified in this area.

4. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

Unit 1

Repairs to main steam isolation valves
Repairs to RHR service water pumps
Repairs to condensate/condensate booster pumps

Unit 2

Repairs to 2'B' feedwater pump

No items of noncompliance or deviations were identified in this area.

5. Monthly Surveillance Observation

- a. The inspector observed portions of the monthly surveillance on Unit 2 emergency diesel generator, core spray logic testing, and calibration of portable friskers, and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following activities associated with the Unit 1 refueling outage:

Hydrostatic testing
Rod insertion time testing

- b. The inspectors started a special indepth review to ascertain whether the surveillance of safety related systems and components was being conducted in accordance with approved procedures as required by Technical Specifications, inservice inspection (ISI) and inservice testing (IST) programs for pumps and valves, and NRR-approved fire protection/prevention programs.

The inspectors reviewed procedures in the following areas to verify that they were properly approved and that they contained prerequisites, preoperations, acceptance criteria, and instructions to ensure systems or components were restored to operation following testing:

- (1) Reactivity control and power distribution
- (2) Instrumentation
- (3) Reactor coolant system
- (4) Emergency core cooling system
- (5) Containment systems
- (6) Plant and electrical power systems
- (7) Fire protection/prevention systems
- (8) IST program

In the tests reviewed, many of the instruments used to obtain data were not identified by instrument number. This lack of identification becomes an item of concern when personnel may choose an instrument which is not calibrated.

No specific examples were found of uncalibrated instruments being relied upon for data in a safety related surveillance. The licensee has acted in an aggressive manner to eliminate this concern by performing a complete review of all safety related surveillance and providing positive identification of instruments used for data-taking where there is a choice.

The inspectors also found that two pressure switches (1/2 7541 32A and B) which actuate to place the fan inlet damper, of the Standby Gas Treatment System (SBGTS) in its fail-safe position (open) upon loss of instrument air, had not been calibrated since 1978 in violation of station procedures requiring annual calibration of safety related instruments. While these switches had always been designated as safety related, they had never been placed on the safety related calibration list. Upon further investigation, the licensee determined that eight similar switches (1-5741-195 A and B, 1-5741-249 A and B, 2-5741-195 A and B, and 2-5741-249 A and B) associated with the reactor

building ventilation isolation valves had also not been placed on the safety related calibration list and no calibration data existed other than original installation. This failure to perform calibration of safety related components is an item of noncompliance (254/84-11-01(DRP); 265/84-10-02(DRP)).

Upon notification the licensee immediately calibrated all 10 pressure switches and added them to the safety related calibration list for annual calibration. Also, at the close of this inspection period, the licensee was continuing an indepth review of the surveillance program to identify any similar weaknesses.

No other items of noncompliance or deviations were identified.

6. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

a. Unit 1

- (i) RO 84-02, dated March 7, 1984, Leak rate from all valves and penetrations in excess of Technical Specifications.

While performing refueling outage local leak rate testing, the measured combined leakage rate for all penetrations and valves, except main steam isolation valves, was found to leak in excess of 293.75 SCFH (0.61 La). A detailed analysis of the safety implication of the valve leakages will be included in a supplemental report. The probable cause of excessive leakage in the valves that caused the total measured leakage to exceed the limit (Technical Specification 4.7.A.2) is not known at this time. A supplemental report will be submitted listing the necessary repairs and corrective actions taken to reduce the total leakage below the limits. This LER will remain open pending submittal of supplemental report.

- (ii) RO 84-06, dated April 1, 1984, Secondary Containment potential problem.

Performance of maintenance on turbine isolation valves (TISV) and main steam isolation valves (MSIV), requiring valve disassembly, resulted in a communication via the main steam piping between the reactor building and turbine building. Although both units were in cold shutdown and secondary containment was not required at the time, a review of this event, in light of secondary containment valve disassembly during single unit outages, revealed a

potential for secondary containment problems. Since station procedures did not address secondary containment concerns with valve maintenance procedures, a procedure assuring secondary containment during valve disassembly and pipe removal was implemented. This was a voluntary report.

- (iii) RO 84-07, dated April 30, 1984, RHR service water vault penetrations were found to leak.

While performing leak rate tests on the RHR service water vault penetrations, 11 penetrations were found to be leaking. The leak rates encountered were small. The RHR service water vault sump pumps would have adequately discharged any water which might have leaked into the vaults had a condensate pump area flood occurred. Piping vibration is attributed as the cause of these leaks due to loosening of the seals. The two seals on the 'B' RHR service water vault, containing the 1/2 diesel generator cooling water pump, were tightened immediately. The remaining seal bolts will be tightened and the penetrations retested before unit startup. This LER will remain open pending completion of above repairs and tests.

- (iv) RO 84-08, dated May 11, 1984, 125 volt DC battery capability re-evaluations.

In light of experience gained during performance of the 125 VDC battery discharge test on Unit 1, the station raised a concern about the adequacy of the design of the 125 VDC battery. The NRC shared the concern, and issued a confirmatory action letter to the company to, in part, demonstrate safe operation based on a battery load profile analysis which demonstrated actual battery capabilities for assumed accident analysis. For the scenario of a loss of off-site power with loss of AC to the battery chargers, and with the unit at full power with no other accident present, it was recommended to the station that a procedure be prepared to shed battery loads within 30 minutes to reduce total load on the battery to less than 62 amperes, and require the plant to reach cold shutdown within four hours. Corrective action taken was to implement the above mentioned procedure with long term corrective action encompassing the replacement of existing battery chargers with larger capacity chargers and replace existing station 125 volt batteries with batteries of greater capacity.

This was reported in inspection reports 254/84-04(DRP) and 265/84-03(DRP) and remains an unresolved item (50-254/84-04-01(DRP); 50-265/84-03-01(DRP)) pending NRR review.

- (v) RO 84-09, dated May 19, 1984, Reactor scram while shutdown.

The scram took place while performing an instrument scram response test. The test initiated a one-half scram on reactor

protection system channel 'A' and, simultaneously, a one-half scram on reactor protection system channel 'B' was received from a spurious IRM Hi-Hi signal. Unit 1 was in a refueling outage with no fuel in the vessel at the time. The channel 'B' IRM scram signal is attributed to workers bumping an IRM signal cable under the reactor vessel while performing CRD maintenance.

- (vi) RO 84-10, dated May 30, 1984, Reactor scram while shutdown.

A trip of the reactor protection system (RPS) was experienced on Unit 1 due to IRMs 11, 14, 15 and 17 going Hi-Hi. There was no apparent root cause for the trip. There was no fuel in the vessel at the time of the occurrence.

- (vii) RO 84-11, dated June 15, 1984, Reactor scram while shutdown.

Unit 1 was in the shutdown mode with no fuel in the vessel. At 1200 hours Bus 13-1 tripped. This caused a channel 'A' half-scram due to the fact that the main feed to the 1A RPS MG set was now lost. An equipment operator was sent to transfer the 1A RPS MG set to its reserve feed so that the half-scram signal could be cleared. Instead, the equipment operator transferred the 1B RPS MG set to its reserve feed, giving a channel 'B' half-scram and causing an RPS system trip. Immediate corrective action was to restore power to the 1B RPS MG set and put the 1A MG set on its reserve feed so that the scram signal could be cleared. Further action was to more clearly label the respective normal and reserve feed breakers '1A RPS' and '1B RPS' respectively.

b. Unit 2

- (i) RO 84-03, dated February 11, 1984, Loss of 480v essential service buses 28 and 29 while shutdown.

The main feed breaker to 480 volt essential service bus 29, from 4000 volt bus 24-1, tripped while 480 volt bus 28 was being fed from bus 29 through the bus 28-bus 29 crosstie. The bus cross-ties are only used during outages for performing maintenance on the normal feed breakers. During operation, the 480 volt buses are fed from different sources so that a loss of one feed would result in a loss of only one bus. The reason for this trip was an overcurrent condition through the crosstie. Loads were stripped from the buses which were re-energized. Loads were limited so the overcurrent condition would not occur again.

A review will be performed of breaker trip settings and crosstie configurations which could be encountered by the operator during outages. This review will result in new procedure precautions pointing out the current-limiting aspects of operation with certain electrical configurations, and this LER will remain open pending completion of procedure revisions.

- (ii) RO 84-06, dated June 1, 1984, Tardy weekly surveillance.

The cause of this event is personnel error. The surveillance interval was exceeded due to an oversight by the instrument maintenance scheduler/planner. The instrument mechanic originally scheduled to perform the test was unable to complete his assignment before the end of the day and there was a failure to re-schedule the test for the next day.

The immediate corrective action was to perform the surveillance test. This was completed within 30 minutes of discovery. Since the method of discovery was a review of the weekly summary sheet, the corrective action has been to prominently display the summary sheet at the entrance to the instrument maintenance foreman's office, so that a casual review will be performed daily to remind the foreman of the need to perform this weekly surveillance.

- (iii) RO 84-07, dated June 10, 1984, Unit scram caused by No. 4 turbine control valve fast closure.

Unit 2 was at 86 percent core thermal power and the weekly turbine test, QOS 5600-1, was in progress. Control valves 1 through 3 operated properly, but when the test switch for control valve No. 4 was depressed the valve immediately fast closed. The resulting pressure spike collapsed the voids in the vessel and a trip of the reactor protection system was received due to high neutron flux. It has been determined that the 90 percent closed limit switch is remaining engaged, causing contacts in the valve test circuit to remain closed, and thereby fast closing the No. 4 control valve in the test mode. This line and switch will be examined at the next opportunity. Until then, a wire in the test circuit of the No. 4 control valve has been lifted to prevent this fast closure in the test mode. A temporary procedure was instituted to enable the weekly turbine test to be performed without a recurrence of this incident. This LER will remain open pending completion of repairs noted above.

- (iv) RO 84-08, dated July 4, 1984, HPCI cooling water return valve failure. After performing the HPCI monthly and quarterly surveillances, the normal HPCI cooling water return valve, MO 2-2301-48, could not be re-opened from the control room. HPCI was declared inoperable. The valve was then manually opened and HPCI was declared operable. The electrical maintenance department investigated the failure but could not duplicate the problem. The valve was cycled several times without any problems. This event is considered an isolated occurrence.

- (v) RO 83-13 (Revision 1), June 18, 1984, Unit 2 CRD overtravel. This is a supplemental report.

The most probable cause of this event was the accumulation of dirt on the inner filter of the control rod drive. If the inner filter becomes embedded with dirt, it can lift off its seat because of the increase in differential pressure in the area of the filter. When the filter lifts up it can push up against the uncoupling rod assembly causing the control rod drive to uncouple itself.

The control rod drive disassembly and inspection checklist (QMP 600-s4) for this drive indicates that one-half of the inner filter was filled with dirt. Also, the radiation level at the filter area before disassembly was high (6-R) indicating an accumulation of dirt in the filters. During the overhaul of the drives, all parts are thoroughly cleaned, including the filters, before the reassembly process.

After this control rod drive was removed from the reactor vessel, it was overhauled and returned to the storeroom. A new drive was then installed in the reactor vessel.

- (vi) RO 82-04, dated February 24, 1982, Failure of RCIC differential pressure switch. The cause of this occurrence was setpoint drift.

No items of noncompliance or deviations were identified in this area.

7. IE Bulletin Followup

For the IE Bulletins listed below the inspector verified that the written response was within the time period stated in the bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presentation in the bulletin and the licensee's response, that licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response.

(Closed) 80-24 (Unit 2 only), "Prevention of Damage Due to Water Leakage Inside Containment."

(Closed) 83-07, "Apparently Fraudulent Products Sold by Ray Miller, Inc." In a response dated March 20, 1984, the licensee reported that these products were not used in safety related applications or had been tested to verify conformance to requirements where applicable.

No items of noncompliance or deviations were identified in this area.

8. IE Information Notice Followup

For the IE Information Notices (IEN) listed below, the inspector verified that the information notice was received by licensee management, that a review for applicability was performed, and that if the information notice were applicable to the facility, appropriate actions were taken or were scheduled to be taken.

- a. IEN 84-14: Highlights of Recent Transport Regulatory Revisions of DOT and NRC. A copy was sent to the Rad-Chemistry Supervisor for information and use.
- b. IEN 84-16: Failure of Automatic Sprinkler System Valves to Operate. An in-plant inspection revealed that the model in question is not used at Quad-Cities.
- c. IEN 84-17: Problems with Liquid Nitrogen Cooling Components Below the NIL Ductility Temperature. This notice was closed under IEB 84-01 in previous reports (84/02-84/02; 84/04-84/03).
- d. IEN 84-13: Potential Deficiency In Motor-operated Valve Control Circuits and Annunciation. Safety related motor operated valves have been modified to lose indication when a thermal overload device has operated. No key bypass switches for thermal overloads are used.
- e. IEN 84-19: Two Events Involving Unauthorized Entries into PWR Reactor Cavities. While not applicable to Quad-Cities, it was routed to the Rad-Chemistry Supervisor for information.
- f. IEN 84-20: Service Life of Relays in Safety-related Systems. The response to IEB 84-02 will address HFA relays. The agastats installed in safety related systems were manufactured after 1977.
- g. IEN 84-21: Inadequate Shutdown Margin. Not applicable to Quad-Cities.
- h. IEN 84-23: Results of the NRC-Sponsored Qualification Methodology Research Test on ASCO Solenoid Valves. Since all environmental qualification applications of ASCO solenoids are enveloped by ASCO report AQS 21678/TR, Rev. A, no further action is necessary.
- i. IEN 84-24: Physical Qualification of Individuals to Use Respiratory Protective Devices. This notice was provided to the Rad-Chemistry Supervisor, Personnel Administrator, and the training supervisor for information.
- j. IEN 84-29: General Electric Magne-Blast Circuit Breaker Problems. None of these type breakers are used in safety related buses: The notice was forwarded to electrical maintenance for further action as deemed necessary.

- k. IEN 84-30: Discrepancies in Record Keeping and Material Defects in Bahnson Heating, Ventilation, and Air Conditioning Units. Bahnson units are not used at Quad-Cities.
- l. IEN 84-31: Increased stroking time of Bettis Actuators because of Swollen Ethylene-Propylene Rubber Seals and Seal Set. Bettis actuators are not used at Quad-Cities.
- m. IEN 84-32: Auxiliary Feedwater Sparger and Pipe Hanger Damage. Not applicable to Quad-Cities.
- n. IEN 84-33: Main Steam Safety Valve Failures Caused by Failed Cotter Pins. A copy of this notice was sent to mechanical maintenance. Dresser safety valves are inspected each refueling outage and the cotter pins are checked at that time.
- o. IEN 84-34: Respirator User Warning: Defective Self-Contained Breathing Apparatus Air Cylinders. Quad-Cities uses MSA SCBA and not Scott SCBA. A copy was routed to the Rad-Chemistry Supervisor.
- p. IEN 84-35: BWR Post-scrum Drywell Pressurization. Modifications have been completed on both units as described in the notice.
- q. IEN 84-36: Loosening of Locking Nut on Limitorque Operator. The problem described has not appeared at Quad-Cities but has been brought to the attention of mechanical maintenance. (Mechanics and foremen have been alerted to this potential problem.)

No items of noncompliance or deviations were identified in this area.

9. Reactor Scrams

Unit 2

On August 5, 1984, the unit experienced an automatic reactor scram from approximately 400 MWE. Main Steam Isolation Valve closure time testing had identified 1 'D' (MSIV) as closing too fast. It was therefore shut and preparations for adjustment and drywell entry were made. The 'B' RPS MG tripped and due to faulty DC solenoids, the 'B' and 'C' MSIVs shut thus causing an APRM high reactor scram. No emergency core cooling systems were actuated and all other systems functioned normally.

Subsequent to replacement of the faulty DC solenoids, testing of all other MSIV DC solenoids on Unit 1 and 2, and setting of proper timing on 1 'D' MSIV, the unit returned to power on August 6, 1984.

No items of noncompliance or deviations were identified in this area.

10. Procedures

For the procedures listed below, the inspector verified that they were in accordance with Technical Specifications, and changes were made to reflect both licensee revisions and NRC requirements.

QGP 1-1, Rev. 32	Normal unit startup
QGP 1-2, Rev. 15	Unit startup to hot standby
QGP 1-S2, Rev. 19	Minimum startup checklist
QGP 2-1, Rev. 24	Normal unit shutdown
QIS 43-1, Rev. 4	Unit 2 quarterly functional test of SDV continuous monitoring system
QIS 43-2, Rev. 4	Unit 2 calibration of the SDV continuous monitoring system
QIS 43-S1, Rev. 4	Unit 2 scram discharge volume continuous monitoring system functional test data sheet
QIS 43-S2, Rev. 3	Unit 2 SDV continuous monitoring system calibration data sheet
QOS 1600-7, Rev. 7	Reactor coolant leakage in the drywell
QAP 200-13, Rev. 9	Station housekeeping organization
QAP 1120-11, Rev. 1	Temporary installation of lead blankets
QAP 500-3, Rev. 4	Maintenance procedures
QGP 2-S1, Rev. 6	Scram report data sheet and start-up authorization
QMS 200-27, Rev. 1	Motor lubrication
QOA 1000-4, Rev. 4	LPCI automatic initiation
QOA 1400-1, Rev. 5	Core spray system automatic initiation

No items of noncompliance or deviations were identified in this area.

11. Review of Licensee's Monthly Performance Report

The inspector reviewed the licensee's monthly performance reports of Units 1 and 2 for the month of June, 1984.

Areas covered by the report were amendments to Technical Specifications, summary of corrective maintenance performed on safety related equipment,

Licensee Event Reports, operating data tabulations, and refueling information. The report was reviewed for compliance with Technical Specification 6.6.A.3.

No items of noncompliance or deviations were identified in this area.

12. TMI Action Plan Followup

NRR has completed its review of information submitted concerning testing of safety and relief valves for Quad-Cities, Units 1 and 2. The information submitted was found to demonstrate the ability of the reactor coolant system relief and safety valves to function under expected operating conditions for design-basis transients and accidents as defined under Item II.D.1 of NUREG-0737. No further review of this item is expected; therefore, this item is considered closed.

No items of noncompliance or deviations were identified in this area.

13. Followup on Regional Requests

On April 13, 1984, the NRC received notification of a potential generic problem concerning valves manufactured by Crane Company identified at Plant Hatch.

Georgia Power Company (GPC) had ordered four replacement valve discs from Crane. Upon their arrival at Plant Hatch they were inspected by site quality control. Visual inspection, per plant procedure HNP-822, revealed unacceptable cracking in the stellite surface on the seat area of two of these discs. In addition, there were three discrepancies noted in the documentation package supplied by the vendor. All four discs were returned to the vendor for repair or replacement, along with a letter requesting that the documentation discrepancies be corrected. Repairs and corrections were allegedly effected by Crane and these four discs were reshipped to Plant Hatch where they were again subjected to a visual receipt inspection. This inspection rejected the valves for cracking similar to that found during the first inspection.

While the deficiencies were discovered during receipt inspections, it was felt that they were of such magnitude that they should have been discovered by the Crane Company.

As with Plant Hatch, the normal receipt inspection at Quad-Cities should discover any similar deficiencies; however, the licensee has agreed to pay particular attention to products manufactured by Crane Company.

No items of noncompliance or deviations were identified in this area.

14. Followup on 10 CFR Part 21 Reports

- a. On October 20, 1983, the NRC was notified of a potential generic concern at Bonney Forge of Carlinsville, Illinois. On February 15, 1984, a 10 CFR Part 21 report was issued. Certain materials had been shipped which lacked the chemical overcheck required by Paragraph NCA-3867.4(3)(2) of Section III of the ASME Boiler and Pressure Vessel Code.

Upon notification, the licensee's quality assurance group performed an investigation and found that Quad-Cities station had been supplied two elbows (stainless steel socklets) from Chicago Tube and Iron which had come from the affected heats supplied by Bonney Forge. These elbows were immediately rejected to scrap. No other material affected by this report was found at Quad-Cities Station. This item (254/84-11-04(DRP); 265/84-10-03(DRP)) is considered closed.

- b. On July 11, 1984, the NRC was notified of a generic concern with Nutherm International, Inc. supplied analog trip cabinets for scram discharge volumes. It was found that 264 of 672 conductor ends were nicked as a result of jacket stripping in the cabinets supplied to Pilgrim Station.

At Quad-Cities Station, the licensee's QC group had found similar problems and corrective action was taken prior to completion of installation of the analog trip cabinets. This item (254/84-11-03(DRP); 265/84-10-04(DRP)) is considered closed.

No items of noncompliance or deviations were identified in this area.

15. Independent Inspection Effort

- a. The resident inspectors became aware through a Region I morning report that batteries supplied by Gould Company may have spacer material between cells which is flammable. Station batteries are supplied by Gould at Quad-Cities. When notified, the licensee immediately investigated and found that older batteries onsite did not have any spacer material; however, newer batteries did. The licensee is presently trying to determine the material used and its flammability. Resolution of this will be tracked as an open item (254/84-11-04(DRP); 265/84-10-05(DRP)).

- b. On July 11, 1984, while observing hydrostatic testing on Unit 1, the resident inspector noted the 2-inch drain line from the reactor vessel bottom head going to the reactor water cleanup system (RWCU) vibrating excessively. The inspector notified the licensee immediately.

A large flange had been added to this drain line during this refueling outage to facilitate decontamination of the line.

The inspector was concerned with the cyclic movement observed and the possible fatigue failure of the piping as a result. This 2-inch line is not isolatable during normal operation; however, the emergency core cooling systems could provide sufficient makeup water in the event this pipe did break.

The inspector questioned the licensee about analysis performed as part of this modification to determine if stresses due to the additional weight of the flange had been analyzed. No analyses could be produced.

Subsequent to this questioning, analyses were performed concerning seismic, thermal, and cyclic stresses, and modifications to the piping supports were recommended and completed. Based upon these results, the inspector has questioned the adequacy of the design modification review and has requested assistance of Regional-based personnel. Region III has requested that the licensee submit the above analyses for review. Any further action will await the results of this review. This issue will be tracked as an unresolved item (254/84-11-05(DRP)).

- c. During a routine tour of the turbine building on July 20, 1984, the resident inspector noted a half-inch air hose protruding through a cable penetration to the cable spreading room. The licensee was informed and questioned as to the adequacy of the fire barrier. The licensee responded by establishing a fire watch as a temporary solution and removing the hose and resealing the penetration as a permanent solution. Further investigation determined that the air hose had been in place since August 1983.

10 CFR 50 Appendix R, Paragraph M requires qualified tests to be performed on all material used in penetration fire barriers. Since no test data was available for the air hose material, this event is considered an item of noncompliance (254/84-11-06(DRP); 265/84-10-06(DRP)).

16. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in Paragraphs 3.c and 15.a.

17. Unresolved Items

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 the inspection is discussed in Paragraph 15.b.

18. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on August 3, 1984, and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors' concerns.