Commonwealth Edison
Quad Cities Nuclear Power Station
22710 206 Avenue North
Cordova, Illinois 61242-9740
Telephone 309/654-2241

GGC-94-084

May 27, 1994

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Quad Cities Power Station Units 1 and 2;
NRC Docket Number 50-254 and 50-265;
NRC Inspection Report Numbers 50-254(265)/94008

Reference: G.C. Wright letter to R. Pleniewicz dated April 28, 1994,
transmitting Notice of Violation.
Inspection Report 50-254/94008; 50-265/94008

Enclosed is Commonwealth Edison's response to the Notice of Violations (NOV) transmitted with the referenced letter. The NOV cited two Level IV violations and a deviation concerning the IST program at Quad Cities.

The following commitments are being made by this letter:

1. Revise Procedure QCOS 2300-6 for open stroke test of 1(2)-2301-4, 5 and 1(2)-2399-40, 41 by restart of Unit 1 and as soon as possible for Unit 2.

2. Implement new procedure QCOS 2300-16 for Close Stroke Test of 1(2)-2301-39 by June 7, 1994.

3. Implement new procedure(s) for partial open test of 1(2)-2301-50 and 75 by restart of Unit 1 and as soon as possible for Unit 2.

4. Implement new procedure for Close Stroke Test of 1(2)-5741-410 by restart of Unit 1 and prior to next schedule test or October 17, 1994 whichever is sooner..

5. 1(2)-1001-142A, B, C, D will be disassembled during Q1R13 and Q2R13 in accordance with Generic Letter 89-04, Position 2. 2-1001-142A, B, C, D will be monitored using acoustical monitoring to determine if any reliable test data can be obtained.

6. Revise QCTP 130-1, Leak Rate Testing Program by July 30, 1994.

7. Repair valve 1-1101-16 by the end of Q1R13.

IE01
1/1

If there are any questions or comments concerning this letter, please refer them to Nick Chrissotimos, Regulatory Assurance at (309) 654-2241, extension 3100.

Respectfully,

for G. G. Campbell
Station Manager

GGC/db

Attachment

cc: J. Martin, Regional Administrator, RIII
C. Patel, Project Manager, NRR
C. Miller, Senior Resident Inspector, Quad Cities

ITEM (A) STATEMENT OF VIOLATION:

10 CFR 50.55A.(f)(4)(ii), states, in part, that inservice tests to verify operational readiness of pumps and valves, whose function is required for safety, must comply with the requirements of the latest edition and addenda of the ASME Boiler and Pressure Code.

1. ASME Code, Section XI, IWV-3511, "Test Frequency," states that, "Check valves should be exercised at least once every three months" (quarterly). ASME Code, Section XI, IWV-3522, "Exercising Procedure," stated that, "Check Valves should be exercised to the position required to fulfill their function. . . ."

Contrary to the above, as of March 25, 1994, the safety functions for the following check valves were not adequately exercised on a quarterly basis:

The open safety function for the residual heat removal (RHR) mini flow check valves 1(2)-1001-142A/B/C/D;

The closed safety function for service water to control room HVAC supply check valve 1/2-5799-410;

The open safety function for high pressure coolant injection (HPCI) system vacuum breaker isolation valves 1(2)-2399-40 and 1(2)-2399-41;

The partial open stroke for HPCI system check valves 1(2)-2301-50 and 1(2)-2301-75 as stated in relief request RV-00E;

The closed safety function for RHR mini flow check valves 1(2)-1001-142A/B/C/D; and

The open safety function for RHR discharge pump check valves 1(2)-1001-67A/B/C/D.

2. ASME Code, Section XI, IWV-3411, "Test Frequency," states that, "category A and B valves shall be exercised at least once every three months" (quarterly). ASME Code, Section XI, IWV-3413, "Power Operated Valves," states that "the stroke time of all power operated valves shall be measured . . . ."

Contrary to the above, as of March 25, 1994, the open safety function for Category B residual heat removal service water flow control valves 1(2)-1001-5A/B was not quarterly stroke time tested.

REASON FOR VIOLATION

Quad Cities station acknowledges the violation as stated. The cause of the violation, in part, was due to a misinterpretation of the requirements when implementing an updated IST program.

Specifically, the second ten-year IST program interval concluded on February 18, 1993 for Unit 1 and on March 10, 1993 for Unit 2. The Spring 1993, Unit 2 refuel outage (Q2R12), was the final refuel outage of the second ten year interval and was scheduled to be completed on May 29, 1993. Due to the rescheduling of previous refueling outages, the completion date for Q2R12 was extended beyond the end of the second ten-year interval. Based on these outage schedule extensions, a tele-conference on 11/24/92 was held between CECo Licensing and NRR. CECo requested and received NRC concurrence to allow the current revision of the Unit 2 IST program, which ended during Q2R12, to extend into the third ten year interval. In addition, based upon the significant procedural changes necessary for implementation of the third ten year interval IST program, CECo requested and received NRC concurrence to allow the current revision of the Unit 1 IST program to also extend into the third ten year interval concurrent with the extension of the Unit 2 IST program. In order to avoid confusion during pre-service testing at the end of Q2R12, the station's intent was to begin revising the surveillance procedures on the implementation date (end of Q2R12) with an interim period for program transition. The IST program implementation process had not yet been completed at the time of the March IST Audit.

This situation has been attributed to the lack of management involvement as well as an overall weakness in the oversight activities by the Site Quality Verification department.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

As a result of the 1993 Diagnostic Evaluation Team's (DET) findings and the untimely implementation of the Third Ten Year IST program, the NRC identified that the IST program contained several weaknesses. The weaknesses were attributable to the lack of management involvement, staffing and quality verification oversight activities.

The station initiated the Problem Identification process to track the test deficiencies. As part of this process, an operability screening was conducted on each deficiency with no concerns identified.

Since line management has become aware of these weaknesses, immediate corrective actions have been taken. A designated Results Engineering Supervisor has been placed to ensure the IST Program scope, testing methodologies and implementation time frames are clearly understood by the work group. He is tasked with the responsibility for communicating any concerns related to

the IST implementation process to the upper management. The Results Engineering Supervisor has set the expectation that the IST Coordinator will ensure station compliance with Code requirements. The Results Engineering Supervisor also has the responsibility to ensure the expectations of compliance is met.

Additionally, CECo has contracted an outside consultant to perform an independent assessment of the IST program scope, testing methodologies and implementation effectiveness. This assessment will included a complete line item review of existing test procedure methodologies as compared to the IST Program and Code requirements. Any noted discrepancies will be documented in accordance with the Problem Identification Form (PIF) process and operability determinations will be made, as necessary, to ensure equipment availability. These outstanding items will be grouped and processed in a timely manner commensurate with priority as established by the Results Engineering Supervisor.

The individual component tests identified in the description of violation will have the following actions taken:

Valve EPN	Test Required	Action To be Taken
1(2)-1001-5A,B	Open Stroke Test	Revise QCOS 1000-9 **(Implemented 5/6/94)**
1(2)-1001-67A,B,C,D	Open & Closed Stroke Test	Revise QCOS 1000-6 **(Implemented 5/6/94)**
1(2)-1001-142A,B,C,D	Open & Closed	Work requests will be initiated to disassemble and inspect the Unit 1(2) valves in Q1R13 and Q2R13. Subsequent disassembly inspections will be in accordance with requirements set forth in Generic Letter 89-04, position 2. Note: 2-1001-142C was disassembled and inspected during Q2R12 (spring of '93). A "for information only" test on the Unit 2 valves using Acoustic Monitoring techniques will be conducted to see if

		any meaningful information can be obtained. Also, a information test will be performed during the pump surveillance testing to ascertain check valve opening to pump performance. **(IN PROGRESS)**
1(2)-2301-4,5	Open Stroke Test	Revise QCOS 2300-6 **(IN PROGRESS)**
1(2)-2301-39	Closed Stroke Test	New Procedure (QCOS 2300-16) **(IN PROGRESS)**
1(2)-2301-50,75	Partial Open Stroke Test	Develop Test method and incorporate into the quarterly HPCI procedure, Testing may not be able to be performed until start-up **(IN PROGRESS)**
1(2)-2399-40,41	Open Stroke Test	Revise QCOS 2300-6 **(IN PROGRESS)**
1/2-5741-410	Closed Stroke Test	Develop Test method and incorporate into quarterly procedure **(IN PROGRESS)**

Corrective Actions to Prevent Further Occurrence:

As mentioned above, the Results Engineering Supervisor has been tasked to provide management oversight to ensure that the IST Coordinator remains focused on the program scope, testing methodologies and IST program implementation schedules. Additionally, Quad Cities will develop specific guidance for the timely implementation of updated IST programs. Paragraph 3.3.3 of the Draft Report for comment on NUREG 1482 will be used for guidance, however, this guidance will have to be adapted to a method suitable for a multiple unit site using common procedures for implementation.

In the Quad Cities Course of Action (COA), the following improvements are being taken for Site Quality Verification:

1) Staffing has been increased by 50% and includes:

   (a) Senior experienced personnel to fill the position of SQV Director (reporting directly to Site VP), Audit Supervisor, ISEG Supervisor, and Integrated Analysis Administrator positions.

   (b) Senior reactor operator licensed or certified personnel have been added in each Quality Verification functional discipline.

   (c) A senior PRA experienced engineer has been added to the ISEG group.

   (d) A senior Maintenance person with INPO experience has been added to the department.

   (e) Eight additions were made to the staff. Six were individually selected for their expertise from various offsite CECo locations and the other two were proven senior line managers from the site. In addition, the SQV group is in the process of hiring additional engineers to increase its' capabilities for overviewing Site engineering activities.

2) The Site Vice President will issue an Independent Assessment Policy Statement which will describe the role of independent assessments in achieving performance improvements, as well as senior management expectation that all personnel will welcome, encourage, and cooperate with performing such audits and assessments.

3) The COA also has set forth programs to improve the effectiveness and timeliness of QV products and Processes.

In addition, the IST program is scheduled to be reviewed on a periodic basis by the SQV department.

Date when full compliance will be achieved:

The independent component test revisions/implementations that are in progress at the time of this response will be implemented prior to Unit 2 start-up. Unit 2 will be implemented prior to the next scheduled test or October 17, 1994, whichever is sooner.

ITEM (B) Statement of Violation:

10 CFR 50.55a.(f)(4)(ii), states, in part, that inservice tests to verify operational readiness of pumps and valves, whose function is required for safety, must comply with the requirements of the edition and addenda of the ASME Boiler and Pressure Vessel Code. ASME Code, Section XI, IWV-3427 "Corrective Action", Section (a), states that valves with leakage rates exceeding the value set by the owner shall be repaired.

Quad Cities procedure QTS 100-63, "Local Leak Test Procedure for the Standby Liquid Control Check 1(2)-1101-15 and CK 1(2)-1101-16 valves," Revision 1, states that immediate corrective action is required when the measured leak rate exceeds the required action range of 10 standard cubic feet per hour (SCFH) for valve 1-1101-16.

Contrary to the above, on November 5, 1992, no immediate corrective actions were taken to repair the Standby Liquid Control (SBLC) Containment Isolation Check valve 1-1101-16 when the Local Leak Rate Test (LLRT) measured leakage rate (16 SCFH) exceeded the required action range.

Reason For Violation:

ASME Code, Section XI, IWV-3427, "Corrective Action", Section (a), states that valves with leakage rates exceeding the value set by the owner shall be repaired. The IST Coordinator's Review of LLRT results failed to identify the exceeded action limit. The LLRT Coordinator was not aware of the above ASME Code, Section XI requirement. The root cause has been attributed to the lack of oversight by the IST Coordinator, procedural deficiencies and the LLRT Coordinator not properly versed in this specific requirement of the Code.

Corrective Actions Taken and Results Achieved:

When the Error was identified, a "Problem Identification Form" (PIF# 93-0948) was generated with the following Corrective Actions:

- An Operability Determination was performed and Unit 1 was found to be operable.

- The Action Limit of 10 SCFH was evaluated and determined to be conservative. Since ASME Section XI, 1986 edition, IWV-3426 allows the station to specify permissible leakage rates for the subject valve, a temporary increase in the Action Range limit to 20 SCFH was satisfactorily evaluated and implemented until the next refueling outage.
  (Ref. Interim Procedures IP-412 and IP-413).

- Repair Plans for SBLC 1-1101-16 valve were confirmed for the Q1R13 Refuel Outage, Work Request # Q04090.

- An independent review was performed on Units 1 and 2 for similar concerns. The review verified that this situation was an isolated case.

- The IST Coordinator and the LLRT Coordinator have been instructed on the Code requirements pertaining to containment isolation valves which fall into the required action range.

Actions to Prevent Recurrence:

LLRT Program Procedure QCTP 130-1, Leak Rate Testing Program, was submitted for revision to add the requirement that valves with leakage rates exceeding station specified values shall be replaced or repair d.

Date when full compliance will be achieved:

- Repair of SBLC 1-1101-16 valve is scheduled to be completed before the end of Q1R13 in July 1994.

- Leak Rate Testing Program Procedure QCTP 130-1 will be revised and implemented by July 30, 1994.

Notice of Deviation:

During an NRC inspection conducted on March 7-25, a deviation of your response to Notice of Violation, dated March 29, 1993, was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C, the deviation is listed below:

In response to violations 254/265-93005-1 and 254/265-93005-2, the licensee committed to incorporate the closed safety function for valves 1(2)-2301-39 in the IST program by September 30, 1993.

Contrary to the above, as of March 25, 1994, the closed safety function for valves 1(2)-2301-39 was not incorporated into the IST program.

Reason for the Deviation:

CECo acknowledges the deviation. The reason for the change not being completed as of the inspection date was that the IST program was undergoing a self-assessment stemming from problems noted during the DET and that all changes were going to be submitted in one package. A deficiency in the commitment action tracking program allowed the due date of the commitment to the NRC to be changed without notification to the NRC.

Corrective Actions Taken and Results Achieved:

1. The station is in the process of developing and implementing a new procedure, QCOS 2300-16, for closed stroke testing of the 1(2)- 2301-39 check valves. This will be completed by June 7, 1994. A formal letter to update the change in commitment date for NRC Inspection Report 93-005 to reflect the above change will be sent.

Corrective Actions Taken to Prevent Further Occurrence:

1. The station has appointed a Results Engineering Supervisor to ensure the IST program scope, testing methodologies and implementation time frames are clearly understood by the work group.

2. The Results Engineering Supervisor will develop specific guidance for the timely implementation of updated IST programs.

3. Regulatory Assurance department will ensure that any date changes requested for NRC violation commitments will be approved by the department head and regulatory assurance supervisor and submitted to the NRC in writing.

4. The station through the management action plan and the station's course of action is taking aggressive steps to correct the backlog of overdue commitment actions and to ensure that

commitments do not go overdue.

Date When Full Compliance Will be Achieved:

Full compliance with this deviation will be met with the implementation of QCOS 2300-16 by June 7, 1994.