



**Commonwealth Edison**  
One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

May 9, 1983

Director, Office of Inspection  
and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Quad Cities Station Units 1 and 2  
Response to Notice of Violation  
NRC Docket Nos. 50-254 and 50-265

- References (a): Notice of Violation letter dated April 11,  
1983, from J. G. Keppler to J. J. O'Connor.
- (b): NRC I.E. Inspection Report Nos. 50-254/82-26  
and 50-265/82-26, letter dated April 11,  
1983, from J.J. Keppler to J.J. O'Connor.

Dear Sir:

This letter is in response to the inspection conducted by Messrs. N. J. Chrissotimos and S. G. DuPont on November 18 through 22 and December 13 through 16, 1982 of activities at Quad Cities Station. References (a) and (b) indicated that certain activities appeared to be in noncompliance with NRC requirements. The Commonwealth Edison Company response to the Notice of Violation is provided in the enclosure.

Our review of the event which was assessed a civil penalty for the inoperative Reactor Protection System subchannel B1 found that it indeed violated sections of the Technical Specification (3.1.A and 3.1.C).

Nevertheless, this violation was of a minor safety significance as the Generator Load Reject and Stop Valve Closure Scram functions were always operable. Only the redundancy of the trip logic was compromised by having the B1 subchannel inoperative. The remaining B2 and A1 or A2 subchannel were sufficient to cause a reactor trip had the need arisen. Therefore, this occurrence had no effect on safe operation of the plant.

To the best of my knowledge and belief the statements contained herein and in the attachment are true and correct. In some respects these statements are not based upon my personal knowledge but upon information furnished by other Commonwealth Edison employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

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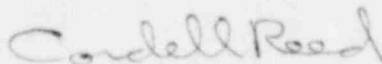
Director of Insp. & Enf.

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May 9, 1983

If you have any further questions on this matter, please direct them to this office.

Very truly yours,



Cordell Reed  
Vice-President

BR/lm

cc: Region III Inspector - Quad Cities  
J. G. Keppler - Region III

6539N

ATTACHMENT

COMMONWEALTH EDISON COMPANY

Response to Notice of Violation

1. Technical Specification 3.1.A requires that two instrument channels for each trip system in the Reactor Protection System (RPS) be either operable or tripped to fulfill the Turbine stop valve closure and Turbine control valve fast closure scram functions while the Reactor is in the RUN mode and steam flow is greater than 45 percent of rated steam flow. If this requirement is not met in one trip system, Technical Specification 3.1.c requires that the affected trip system shall be tripped immediately and the other RPS instrument channels fulfilling the same functions shall be functionally tested within eight hours.

Technical Specifications 6.2.A.1 and 6.2.A.3 require that detailed written procedures shall be adhered to covering normal startup and operation of the Reactor and other systems involving nuclear safety and covering actions to be taken in response to alarms. Normal unit startup procedure, QGP 1-1r(1), requires that the operator verify that the Turbine generator load reject and stop valve scram bypass alarm clears at approximately 40 percent as Reactor power increases. If the alarm does not clear, the alarm response procedure, QOA 900-5-H-4(56), requires that the operator check for a faulty relay or alarm circuit. Shift change procedures for the Shift Engineer, Station Control Room Engineer/Shift Technical Advisor, and Nuclear Station Operators, QAP 300-3, QAP 300-21, and QAP 300-4, respectively, require that those persons be cognizant of abnormal plant conditions following each shift turnover.

Contrary to the above:

- A. RPS trip system "B" did not have two operable or tripped instrument channels to fulfill the Turbine stop valve closure and Turbine control valve fast closure scram functions for approximately 40 hours between October 13 and 15, 1982, while Unit 2 was in the RUN mode and steam flow was greater than 45 percent of rated steam flow. While this requirement was not met, the licensee did not trip RPS trip system "B" and test the other RPS instrument channels that fulfill the same functions.
- B. On October 13, 1982, when Unit 2 Reactor power was increased above 40 percent, the licensee did not adhere to the startup procedure, QGP 1-1, by failing to verify that the Turbine pressure generator load reject and stop valve scram bypass alarm cleared.

- C. For approximately 40 hours on October 13 through 15, 1982, while the Turbine generator load reject and stop valve scram bypass alarm was actuated and Turbine load was greater than 40 percent, the licensee did not adhere to the alarm response procedure, QOA 900-5, by failing to check for a faulty relay or alarm circuit.
- D. Following shift turnovers during the period from October 13, 1982, at approximately 6 p.m. (CDT), to October 15, 1982, at approximately 9:45 a.m. (CDT), the Shift Engineers, Station Control Room Engineer/Shift Technical Advisors and Nuclear Station Operators failed to adhere to their respective shift change procedures, QAP 300-3, QAP 300-2i, and QAP 300-4, by not being cognizant of the annunciator indicating the degraded condition of RPS trip system "B".

#### Admission of Alleged Violation

Commonwealth Edison admits to the alleged violation.

#### Reasons for the Violation

The B1 RPS subchannel bypass relay, 2-590-123B, failed to de-energize at 45 percent of rated first stage Turbine pressure because the associated pressure switch PS-2-504B was inadvertently left valved-out. During the Maintenance Outage that took place between October 8 and October 13, 1982, the test taps for these pressure switches were replaced. The instrument isolation valve for PS-2-504B leaked sufficiently to require the rack stop valve, which is located behind the instrument rack, to be closed. When the Instrument Mechanic finished replacing the test tap, he opened the instrument isolation valve, but failed to open the rack stop valve.

Energization of relay 2-590-123B caused Control Room alarm "Turbine Pressure Generator Load Reject and Stop Valve Scram Bypass" not to clear. This condition was not noticed by the Control Room Operators at the time first stage Turbine pressure exceeded 45 percent of rated, and the alarm condition was not corrected until approximately 40 hours later.

#### Corrective Actions Taken and Results Achieved

The Unit startup procedure QGP 1-1 has been revised to include a sign-off space for verifying that the "Turbine Pressure/Generator Load Reject and Stop Valve Scram Bypass" alarm has cleared. This alarm can be cleared shortly after 40 percent power is obtained.

The Instrument Mechanics have been reminded as to the serious consequences of not returning equipment to its original status following the completion of maintenance work.

### Corrective Actions to Avoid Further Non-Compliance

The Station Control Room Engineers have developed a program for monitoring nuisance and continual alarms. When one such alarm is identified as a troublesome condition, an investigation is performed by the SCRE. If he determines a true alarm condition does not exist, a Work Request is written to rectify the situation. A synopsis report of these alarms is given to the Senior Operating Engineer on a weekly basis for further evaluation and resolution.

Procedure changes have been initiated for the shift change procedures of the Operating personnel involved in this occurrence. These procedure revisions highlight the fact that the Control Room alarms are an important parameter which requires strict attention during the panel checks at the start of each shift.

### Date When Full Compliance Will be Achieved

The procedures for shift change will be implemented by July 1, 1983. Training on these procedures will be complete by August 1, 1983.

2. 10 CFR 50, Appendix B, Criterion XI, Test Control, requires that test procedures shall include provisions for assuring adequate test instrumentation is available and used and that the test is performed under suitable environmental conditions. Commonwealth Edison Company is committed to the requirements of ANSI N45.2.8, 1974, Revision 3, Draft 3, as stated in the Quality Assurance Program Topical Report, CE-1-A, Revision 22, dated November 1, 1982. ANSI N45.2.8, 1974, Revision 3, Draft 3, Section 4.5.2, "Hydrostatic Testing," requires that checks shall be made to verify that mechanical items are being hydrostatically tested in accordance with specified requirements to assure the strength and integrity of the installed systems, and those checks shall include the control over relief devices to prevent system overpressurization.

Technical Specification 6.2.A.7 requires that detailed written procedures shall be adhered to covering surveillance and testing requirements. The hydrostatic test procedure for the Reactor vessel, QOS 201-5, Step 16, requires that vessel pressure shall not exceed 1120 psig.

Contrary to the above, during the Unit 1 Reactor vessel hydrostatic test conducted on December 12, 1982, relief devices to prevent system overpressurization were not controlled and overpressurization protection was not provided. Also, hydrostatic test procedure, QOS 201-5, was not adhered to and Reactor vessel pressure was increased to 1225 psig.

### Admission of Alleged Violation

Commonwealth Edison admits to the alleged violation.

### Reasons for the Violation

The root cause of this event was due to an inadequate test procedure which was used for the Reactor vessel hydrostatic test. The fact that this was the first time this test was performed at Quad-Cities led to a situation where the Reactor pressure exceeded the hydrostatic test pressure.

### Corrective Actions Taken and Results Achieved

The initial corrective action taken was to consult the Company's Station Nuclear Engineering Department (SNED) to analyze the effect on the Reactor vessel due to the overpressurization. A review was conducted by SNED engineers which examined Technical Specification Figure 3.6.1.

This review revealed that a vessel pressure of 1225 psig corresponds to a minimum temperature of 165°F. Therefore, it was concluded that since the minimum temperature had not been compromised the conditions reached did not exceed limits as defined in Appendix G of 10 CFR 50 nor the Technical Specifications.

### Corrective Action to Avoid Further Non-Compliance

To avoid the possibility of a recurrence of a similar nature an on-site review committee thoroughly reviewed the circumstances of the hydrostatic test and provided the following recommendations:

- 1) The flow check valve surveillance should be done after the hydrostatic pressure is reduced following the four hour hold period. Also, each instrument rack which monitors similar parameters should be done separately to ensure the Control Room has proper indication of Reactor pressure at all times.
- 2) Procedure QOS 201-5, Reactor Vessel and Class 1 Systems Hydrostatic Test for Inservice Inspection, will be revised to include the following changes:
  - (a) The valve checklists will be reviewed and clarifications to the list made as necessary.
  - (b) A prerequisite which assures an adequate water supply via available low pressure ECCS will be addressed.
  - (c) Operation of the manual Reactor vessel head vent valves will be clearly stated.

- (d) The Main Steam Electromatic Relief Valve control switches will be placed in the OFF position.
- (e) The proper steps will be taken to assure the CRD charging water header does not pressurize the Reactor vessel without use of the CRD flow control station.
- (f) A prerequisite will be added to the procedure which ensures communication between personnel at the Heise gauge and the Control Room is maintained throughout the test.
- (g) Pressure protection for the vessel will be provided during the duration of the test by utilizing the Target Rock safety/relief valve. This will be done by setting the pressure controller for this valve at 1175 psig and leaving the key-lock switch in AUTO. Then all safety valves will be gagged shut.
- (h) A precaution will be added to the procedure to remind the operator the pressure indicator on the 90X-4 panel associated with the Clean-up System is a good means of double verification since this reading is not subject to an excess flow check.

Date When Full Compliance Will be Achieved

The hydrostatic test procedure is presently being revised to reflect the aforementioned recommendations. Implementation of this procedure will be accomplished by August 1983.

DCS

### BILL FOR COLLECTION

Bill No. \_\_\_\_\_

S. Nuclear Regulatory Commission

Date May 13, 1983

(Department or Establishment and Bureau or Office)  
Washington, DC 20555

(Address)

PAYER:

Commonwealth Edison  
P.O. Box 767  
Chicago, IL 60690

*This bill should be returned by the payer with his remittance.  
SEE INSTRUCTIONS BELOW.*

Date	DESCRIPTION	Quantity	Unit Price		Amount
			Cost	Per	
5/13/83	Full payment for EA 83-19, Docket Nos. 50-254 and 50-265 for CP dated 4/11/83.				\$60,000.00
<b>AMOUNT DUE THIS BILL,</b>					<b>\$ 60,000.00</b>

*This is not a receipt*

#### INSTRUCTIONS

Tender of payment of the above bill may be made in cash, United States postal money order, express money order, bank draft, or check, to the office indicated. Such tender, when in any other form than cash, should be drawn to the order of the Department or Establishment and Bureau or Office indicated above.

Receipts will be issued in all cases where "cash" is received, and only upon request when remittance is in any other form. If tender of payment of this bill is other than cash or United States postal money order, the receipt shall not become an acquittance until such tender has been cleared and the amount received by the Department or Establishment and Bureau or Office indicated above.

Failure to receive a receipt for a cash payment should be promptly reported by the payer to the chief administrative officer of the bureau or agency mentioned above.

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Commonwealth Edison Company

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OFFICE

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