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

October 18, 1982

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Quad Cities Station Unit 1
Proposed Technical Specification
Change Concerning Safety/Related
Valve Setpoints
NRC Docket No. 50-254

Dear Mr. Denton:

Pursuant to 10 CFR 50.59, Commonwealth Edison proposes to amend the Appendix A Technical Specifications to Facility Operating License DPR-29 for Quad Cities Station Unit 1. The requested amendment changes the safety/relief actuating setpoint of the Target Rock valve to 1135 psig and changes the setpoint of two Electromatic Relief (EMR) valves to 1115 psig.

In analyses associated with the Mark I Containment Program, it was discovered that excessive loads could be subjected to the torus if a relief valve actuation occurs shortly after it closes. This loading is the result of a water leg entrapped in the relief valve discharge line from the vacuum caused by the condensed steam in this line. To prevent such loading, a modification to the EMR valve logic is currently being installed which will delay automatic opening of two EMR valves up to ten seconds from the last closure of the valve. In order to maintain very similar overall Target Rock and EMR valve performance with this logic change and prevent excessive loading, the two affected (EMR) valves Techical Specification pressure setpoints must be lowered so that they are the first to actuate and the setpoint of one valve (Target Rock) will be raised.

General Electric has evaluated this modification and has determined that it will have an insignificant impact on transient and ECCS evaluations:

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w/check #4,000

Transients

For the limiting transient (Load Rejection w/o Bypass) the pressurization is estimated to be milder because there is a net relief valve setpoint decrease, thus slightly lowering the peak pressure and power for the transient. This change is expected to have no impact on the increased subcooling events.

Overpressure

The ASME overpressurization event (no credit for EMR valve actuation) is estimated to have a slightly increased peak pressure (no more than 5 psi) because the Target Rock Safety/ Relief valve setpoint is slightly increased. This peak pressure increase is insignificant compared to the calculated margin for QC 1 Cycle 7 (about 50 psi margin to peak vessel allowable pressure of 1375 psig).

ECCS

No impact is expected on the PCT for the limiting break (i.e. large break LOCA). The impact on the worst case small break LOCA). The impact on the worst case small break LOCA is expected to be less than $\pm$ 20^{o}F. This increase is not significant, and cannot make the SBLOCA more limiting than the LBLOCA. Also, the ten second delay is not expected to have any impact on peak pressure as the steam generation is much reducted after the seram.

Although the net effect on transients and accidents is insignificant for the reasons described above, future cycle specific reload analyses will explicitly account for the actual setpoints in place. Because these changes do not affect the design basis LOCA (large break), no explicit ECCS reanalyses are necessary.

The attached changes have received On-Site and Off-Site review and approval. Installation of this modification is required in the current Unit 1 outage by the Mark I orders; your approval of this request is therefore necessary prior to startup (early December 1982).

We have determined that this request is a Class III 10 CFR 170 amendment request. As such, a fee remittance of $4,000 is enclosed.

Please direct any questions you may have concerning this matter to this office.

Three (3) signed originals and thirty-seven (37) copies of this transmittal are provided for your use.

Very truly yours,

Thomas J. Rausch
Nuclear Licensing Administrator

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Attachment

cc: Region III Inspector - Quad Cities

SUBSCRIBED and SWORN to
before me this 19th day
of October, 1982

Rosalie A. Puenta
Notary Public

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