



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

December 20, 1993

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

SUBJECT: Quad Cities Nuclear Power Station Unit 1 and 2 Application for
Amendment for Facility Operating Licenses DPR-29 and DPR-30,
Technical Specifications
NRC Docket Nos. 50-254 and 50-265.

Dr. Murley:

Pursuant to 10 CFR 50.90, Commonwealth Edison (CECo) proposes to amend Appendix A, Technical Specifications, of Facility Operating Licenses DPR-29 and DPR-30 to increase the MCPR Safety Limit from 1.06 to 1.07 for Quad Cities Units 1 and 2 as a result of the planned implementation of GE8X8NB-3 (GE10) fuel for Cycle 14 of each unit.

This proposed amendment request is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes in this amendment.
2. Attachment B includes the marked-up Technical Specifications pages for Quad Cities with the requested change indicated.
3. Attachment C describes CECo's evaluation performed in accordance with 10 CFR 50.92 (c), which confirms that no significant hazards consideration is involved.
4. Attachment D provides the Environmental Assessment Applicability Review.

This proposed amendment has been reviewed and approved by CECo On-Site and Off-Site Review in accordance with Commonwealth Edison procedures.

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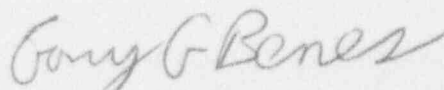
Issuance of this dual-unit amendment is requested prior to the Unit 1 Cycle 14 beginning of cycle startup which is scheduled to occur June 20, 1994. However CECO requests that the effective date for Unit 2 be stated as "upon completion of Cycle 13 operations" so that the new limit does not prematurely become effective necessitating inappropriate procedure changes and a mid-cycle Core Operating Limits Report (COLR) revision during the remainder of the Unit 2 current operating cycle.

To the best of my knowledge and belief, the statements contained above are true and correct. In some respect these statements are not based on my personal knowledge, but information furnished by other Commonwealth Edison employees and consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

Commonwealth Edison is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated state official.

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

Sincerely,



Gary G. Benes
Nuclear Licensing Administrator

Attachments:

- A. Description and Safety Analysis for the Proposed Changes
- B. Marked-Up Technical Specification Pages
- C. Evaluation of Significant Hazards Considerations
- D. Environmental Assessment Applicability

cc: J. B. Martin - Regional Administrator, RIII
Senior Resident Inspector - QCNPS
C. P. Patel - Project Manager, NRR
Office of Nuclear Facility Safety - IDNS

Signed before me on this 20 day
of December, 1993
by Maryellen D. Long
Notary Public



ATTACHMENT A

DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED CHANGES

This attachment describes the bases of the proposed revisions to the Quad Cities Unit 1 and Unit 2 Technical Specifications that are required to support Cycle 14 operation of both units. This evaluation is divided into three sections:

1. Description of change
2. Bases for change
3. Schedule

1. DESCRIPTION OF CHANGE

Commonwealth Edison plans to load GE8X8NB-3 (GE10) fuel in Quad Cities Units 1 and 2 for Cycle 14 of each unit. The GE10 fuel design has an interactive channel and a 40 mil offset on the lower tie plate of the fuel bundle which moves the fuel bundle closer to the control blade in the control cell. This produces the effect of making the control cell with the GE10 more similar to that of a C-lattice core relative to a standard D-lattice core used in the BWR-3 class of General Electric reactors. C-lattice cores have uniform water gaps between assemblies whereas D-lattice cores have wider gaps on the control blade sides of the assemblies. Beneficial effects of C-lattice cores include improved fuel cycle economics and reduced channel bow due to more uniform neutron flux gradients.

The proposed change to increase the Safety Limit MCPR from 1.06 to 1.07 is based on General Electric Standard Application for Reactor Fuel II (GESTAR II) NEDE-24011-P-A-10 conclusions that the GE8X8NB C-lattice safety limit MCPR of 1.07 is acceptable for GE10 fuel designs loaded in D-lattice cores. The NRC has reviewed and approved the GE10 fuel design and the associated safety limit MCPR of 1.07, and this approval is documented in (GESTAR II) NEDE-24011-P-A-10. This safety limit therefore needs to be implemented in the Quad Cities Station Units 1 and 2 Technical Specifications prior to the first use of GE10 in each unit.

2. BASES FOR CHANGE

Per GESTAR II NEDE-24011-P-A-10, the offset lower tie plate option in GE10 designs makes the D-lattice assemblies more neutronicallly similar to the C-lattice assemblies. Based on this neutronic similarity, GE justified application of the approved GE8X8NB C-lattice safety limit MCPR for GE10 fuel in D-lattice cores. Since the GE10 design in

a D-lattice core has a geometry between C-lattice and D-lattice designs and the C-lattice design has a higher safety limit MCPR than the D-lattice design, the use of C-lattice safety limit MCPR for the GE10 design is a conservative approach. This change has already been approved by the NRC for other D-lattice plants using GE10 fuel. In addition, application of the proposed 1.07 Safety Limit MCPR value to other fuel currently used in the Quad Cities units is also conservative. Therefore it is concluded that the GE8X8NB C-lattice safety limit MCPR (1.07) is acceptable for both GE10 and currently loaded fuel designs.

3. SCHEDULE

GE10 fuel shall be loaded in Quad Cities Unit 1 during refueling prior to operation of Cycle 14. Startup for Cycle 14 is scheduled to begin June 20, 1994. Approval of this amendment is requested prior to startup.