

November 29, 1990

Docket Nos. 50-254  
and 50-265

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Mr. Thomas J. Kovach  
Nuclear Licensing Manager  
Commonwealth Edison Company-Suite 300  
OPUS West III  
1400 OPUS Place  
Downers Grove, Illinois 60515

Dear Mr. Kovach:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR  
PROPOSED EXEMPTION FROM GENERAL DESIGN CRITERION 17 OF APPENDIX A  
TO 10 CFR PART 50 - QUAD CITIES (TAC NOS. 69420 AND 69421)

Enclosed is a copy of the "Environmental Assessment and Finding of No  
Significant Impact" for a proposed exemption from General Design Criterion 17  
of Appendix A to 10 CFR Part 50. The proposed Exemption deals with the Quad  
Cities Low Pressure Coolant Injection (LPCI) swing bus design.

This assessment has been forwarded to the Office of the Federal Register  
for publication.

Sincerely,

**Original Signed By:**

Leonard N. Olshan, Project Manager  
Project Directorate III-2  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosure:  
Environmental Assessment

cc w/enclosure:  
See next page

DOCUMENT NAME: [EA 69420 AND 69421]

\*SEE PREVIOUS CONCURRENCE

Office: \*LA/PDIII-2  
Surname: CMoore  
Date: 09/21/90

*LO* PM/PDIII-2  
LOlshan/tg  
11/28/90

*RB* PD/PDIII-2  
RBarrett  
11/29/90

*CP*  
\*OGC  
RBarth  
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Mr. Thomas J. Kovach  
Commonwealth Edison Company

Quad Cities Nuclear Power Station  
Unit Nos. 1 and 2

cc:

Mr. Stephen E. Shelton  
Vice President  
Iowa-Illinois Gas and  
Electric Company  
P. O. Box 4350  
Davenport, Iowa 52808

Michael I. Miller, Esq.  
Sidley and Austin  
One First National Plaza  
Chicago, Illinois 60690

Mr. Richard Bax  
Station Manager  
Quad Cities Nuclear Power Station  
22710 206th Avenue North  
Cordova, Illinois 61242

Resident Inspector  
U. S. Nuclear Regulatory Commission  
22712 206th Avenue North  
Cordova, Illinois 61242

Chairman  
Rock Island County Board  
of Supervisors  
1504 3rd Avenue  
Rock Island County Office Bldg.  
Rock Island, Illinois 61201

Illinois Department of Nuclear Safety  
Office of Nuclear Facility Safety  
1035 Outer Park Drive  
Springfield, Illinois 62704

Regional Administrator, Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road, Bldg. #4  
Glen Ellyn, Illinois 60137

Robert Neumann  
Office of Public Counsel  
State of Illinois Center  
100 W. Randolph  
Suite 11-300  
Chicago, Illinois 60601

UNITED STATES NUCLEAR REGULATORY COMMISSIONCOMMONWEALTH EDISON COMPANYDOCKET NOS. 50-254 AND 50-265ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of exemptions from the requirements of 10 CFR Part 50, Appendix A, General Design Criterion 17, to Commonwealth Edison Company (CECo or the licensee) for the Quad Cities Nuclear Power Station (Units 1 and 2) located in Rock Island County, Illinois.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action:

The proposed action would grant an Exemption from certain requirements of General Design Criterion (GDC) 17 of Appendix A to 10 CFR Part 50. More specifically, the Low Pressure Coolant Injection (LPCI) swing bus design does not meet the single failure criterion or the independence requirements of GDC 17.

The Need for the Proposed Action:

The LPCI swing bus design was found acceptable in the Quad Cities Safety Evaluation Report (SER), issued August 25, 1971. This SER acknowledged that this design did not meet GDC 17, but no Exemption was issued at that time or with the issuance of the licenses for Quad Cities, Units 1 and 2.

The staff reexamined the design and again found it acceptable in NUREG-0138, issued November 1976. NUREG-0138 states that the staff does not consider a change in the LPCI swing bus design to satisfy GDC 17 justifiable as substantial additional protection required to protect the public health and safety.

Environmental Impacts of the Proposed Action:

The proposed Exemption merely acknowledges a design that has been in place since the Quad Cities units have been operating. Thus, this Exemption will not change the types, or allow an increase in the amounts, of effluents that may be released offsite. Nor would it result in an increase in individual or cumulative occupational radiation exposure. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed Exemption.

With regard to potential nonradiological impacts, the proposed Exemption involves features located entirely within restricted areas as defined by 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed Exemption.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement (construction permit and operating license) for Quad Cities Nuclear Power Station, Units 1 and 2, dated September 1972.

Alternatives to the Proposed Action:

Since the Commission has concluded there are no measurable environmental impacts associated with the proposed Exemption, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the Exemption would be to require rigid compliance with the requirements of GDC 17 of Appendix A to 10 CFR Part 50. Such action would not enhance

the protection of the environment and would result in unwarranted licensee expenditures of engineering and construction resources, as well as associated capital costs.

Agencies and Persons Consulted:

The Commission's staff reviewed the licensee's design and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed Exemptions.

Based upon the foregoing environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this proposed action, see the Quad Cities Safety Evaluation Report, dated August 25, 1971 and NUREG-0138, "Staff Discussion of Fifteen Technical Issues Listed in Attachment to November 3, 1976 Memorandum from Director, NRR to NRR Staff," published November 1976. These documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. and at the Dixon Public Library, 221 Hennepin Avenue, Dixon, Illinois 61021.

Dated at Rockville, Maryland, this 29th day of November, 1990.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard J. Barrett, Director  
Project Directorate III-2  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation