

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