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Docket File

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION
COMMONWEALTH EDISON COMPANY
DOCKET NOS. 50-254 AND 50-265
NOTICE OF ENVIRONMENTAL ASSESSMENT AND FINDING
OF NO SIGNIFICANT IMPACT

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

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would grant certain plant specific exemptions from the requirements for "Fire Protection of Safety Shutdown Capability" prescribed in Section III.G of Appendix R to 10 CFR Part 50. More specifically, CECo requested exemptions from: (1) Subsection III.G.1 - fire protection features shall be provided to assure at least one train of equipment necessary for hot shutdown would be undamaged by fire, and systems necessary for cold shutdown could be repaired within 72 hours; (2) Subsection III.G.2.a - cables and equipment, and associated non-safety circuits, of redundant trains shall be separated by a 3-hour rated fire barrier; and (3) Subsection III.G.3 - where provisions of subsection III.G.2 cannot be met, then alternative or dedicated shutdown capability shall be provided, including installation of a fire detection and fixed-fire suppression system.

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The Need for the Proposed Action:

Since it is not possible to predict all conditions or plant configurations under which a fire can occur and propagate, the Appendix R rule only prescribes general fire protective measures. As such, there will be instances where plant specific configurations or system features could safely allow for a different kind of protection from fire damage than specified in the rule (i.e., Section III.G).

For these situations, strict compliance may not be required to meet the underlying purpose of the rule. Whereupon for special circumstances identified in 10 CFR §50.12, the licensee can be permitted to forego unnecessary plant modifications. For the particular instances in this proposed action, the licensee has demonstrated by detailed fire hazards analysis that existing protection and/or other proposed modifications will provide a level of safety for certain plant areas and zones which is equivalent to the technical requirements in sub-sections III.G.1, III.G.2, and III.G.3 of Appendix R.

Environmental Impact of the Proposed Action:

The proposed exemptions are intended to provide a level of safety equivalent to the technical requirements of Section III.G of Appendix R. These exemptions will not change the types, or allow an increase in the amounts, of effluents that may be released offsite. Nor would they 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 exemptions.

With regard to potential nonradiological impacts, the proposed exemptions involve features located entirely within restricted areas as defined by 10 CFR Part 20. They do not affect nonradiological plant effluents and have no

other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed exemptions.

Alternative Use of Resources:

This action does not involve the use of resources which were 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.

Alternative to the Proposed Action:

Since the Commission has concluded there are no measurable environmental impacts associated with the proposed exemptions, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemptions would be to require rigid compliance with the requirements of Section III.G in Appendix R of 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 Person Consulted:

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

FINDING OF NO SIGNIFICANT IMPACT

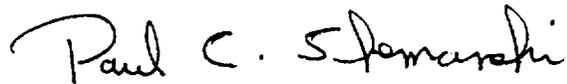
The Commission has determined not to prepare an environmental impact statement for the proposed exemptions.

Based upon the aforementioned 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 licensee's letter requesting exemptions dated December 18, 1984, and as supplemented by letters dated December 4, 1985, June 25, 1986, July 22, 1986, January 12, 1987, September 30, 1987, October 1, 1987, November 20, 1987, November 23, 1987 and November 30, 1987. These letters are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. 20555; and at the Dixon Public Library, 221 Hennepin Avenue, Dixon, Illinois 61021.

Dated at Bethesda, Maryland this 24th day of July 1989.

FOR THE NUCLEAR REGULATORY COMMISSION



Paul C. Shemanski, Acting Director
Project Directorate III-2
Division of Reactor Projects III,
IV, V, and Special Projects

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