

UNITED STATES NUCLEAR REGULATORY COMMISSION

7590-01

BOSTON EDISON COMPANY

DOCKET NO. 50-293

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of exemptions from certain requirements of 10 CFR Part 50, Appendix R, to the Boston Edison Company (BECO/licensee) for the Pilgrim Nuclear Power Station located at the licensee's site in Plymouth County, Massachusetts.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action

The proposed action would grant exemptions from certain requirements of Appendix R of 10 CFR Part 50. Specifically, exemptions were requested from Section III.G.2.a to the extent that it requires:

a. Separation of redundant trains of residual heat removal (RHR), automatic depressurization system (ADS), core spray and emergency diesel generator fuel oil transfer pump cables located in Fire Zones 1.1., 1.6/1.8, and 1.30A, respectively, by 3-hour fire rated barriers.

b. Structural steel in the torus compartment forming a part of or supporting the fire barrier between redundant trains of safe shutdown components in Fire Zone 1.30A and Fire Zones 1.9 and 1.10 to be protected to provide fire resistance equivalent to that required of the barrier.

c. Structural steel in the steam tunnel forming a part of or supporting the fire barrier between Fire Zone 1.32 and Fire Zones 1.11 and 1.12 to be protected to provide fire resistance equivalent to that required of the barrier.

Need for the Proposed Action

To meet the requirements of Subsection III.G.2 of Appendix R, one train of cables and equipment necessary to achieve and maintain safe shutdown shall be maintained free of fire damage.

Subsection III.G.3 of Appendix P requires that for areas where alternative or dedicated shutdown capability is provided, fire detection and a fixed fire suppression system shall also be installed in the area, room, or zone under consideration.

The proposed action is needed to allow the licensee to complete less costly modifications, including rerouting of power cables out of the fire zones of concern, and to employ existing fire protection features. This will provide the level of fire safety which is equivalent to that achieved by compliance with the technical requirements of Section III.G of Appendix R.

#### Environmental Impacts of the Proposed Action

The proposed exemptions would provide an equivalent level of fire safety such that there is no increase in the risk of not achieving safe shutdown at the Pilgrim Station. Consequently, the probability of achieving safe shutdown has not been decreased and the post-accident radiological releases would not be greater than previously determined nor do the proposed exemptions otherwise affect radiological plant effluents. The proposed exemptions do not affect plant nonradiological effluents and will have no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or nonradiological environmental impacts associated with the proposed exemptions.

#### Alternatives to the Proposed Action

Since the Commission has concluded there is no measurable environmental impact associated with the proposed exemptions, other alternatives need not be evaluated. The principal alternative to the exemptions would be to require rigid compliance with the Section III.G.2 requirements. Such action would not enhance the protection of the environment and would result in unjustified costs for the licensee.

Alternative Use of Resources

This action does not involve the use of resources not considered previously in the Final Environmental Statement related to the operation of Pilgrim Nuclear Power Station.

Agencies and Persons Consulted

The NRC staff reviewed the licensee's requests 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 NRC staff 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 letters dated November 16, 1983 supplemented on December 27, 1984, July 28, and November 14, 1986, and April 21 and August 4, 1987. These letters are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, D.C. and at the Plymouth Public Library, 11 North Street, Plymouth County, Massachusetts.

Dated at Bethesda, Maryland this 16<sup>th</sup> day of September 1987

FOR THE NUCLEAR REGULATORY COMMISSION

*Victor Nerses*

Victor Nerses, Acting Director  
Project Directorate I-3  
Division of Reactor Regulations I/11

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FOR THE NUCLEAR REGULATORY COMMISSION

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Victor Nerses, Acting Director  
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