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SUPERINTENDENT
NUCLEAR OPERATIONS DEPARTMENT

November 21, 1979

BECo. Ltr. #79-235

Proposed Change No. 79-7

Mr. Thomas A. Ippolito, Chief
Operating Reactors Branch #3
Division of Operating Reactors
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

License No. DPR-35
Docket No. 50-293

Technical Specification Change Concerning
Multiple Control Rod Removal

Reference (a) Meeting on October 12, 1979 with members of BECo Staff and NRC Staff at Washington, concerning proposed Technical Specification Change on Multiple Control Rod Removal

Dear Sir:

Introduction

Pursuant to Section 50.90 of the Commission's Rules and Regulations, Boston Edison Company hereby proposes the following modification to Appendix A of Operating License No. DPR-35.

Proposed Change

Reference is made to Pilgrim Station Operating License No. DPR-35 Appendix A, Section 3.10 "Refueling". The desired change would consist of adding sections (as attached) to the Technical Specifications to make provisions for Multiple Control Rod Removal during Refueling Operations.

Reason for Change

During Pilgrim Nuclear Power Station's next refueling outage, part of the scheduled maintenance to be performed will consist of rebuilding or replacing certain Control Rods or Control Rod Drive mechanisms. Our current restrictive wording of Technical Specifications prohibits removal of more than one control rod at a time when the mode switch is in the "refuel" position, and also prohibits operation of the refueling platform when one rod is out of position. The change would allow for more than one rod to be

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removed at a time by bypassing the "one rod out circuitry", when the reactor mode switch is in the "refuel" position. As such, it would be possible to repair more than one rod at a time which would substantially reduce maintenance outage time, and in turn lower personnel radiation exposures associated with such maintenance.

Safety Considerations

These specifications ensure that maintenance or repair of control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The operation is performed with the mode switch in the "Refuel" position to provide the refueling interlocks normally available during refueling as explained in the Bases for Specification 3.10.A. In order to withdraw more than one control rod, it is necessary to bypass the refueling interlock on each withdrawn control rod which prevents more than one control rod from being withdrawn at a time. The requirement that the fuel assemblies in the cell controlled by the control rod be removed from the reactor core before the interlock can be bypassed insures that withdrawal of another control rod does not result in inadvertent criticality. Each control rod essentially provides reactivity control for the fuel assemblies in the cell associated with the control rod. Thus, removal of an entire cell (fuel assemblies plus control rod) results in a lower reactivity potential of the core.

The methodology utilized in the determination that removal of one or mulitple controlled cells during cold shutdown conditions leads to a less reactive state was discussed with NRC staff personnel on October 12, 1979 (Reference (a)). A report on this subject is in process and it is anticipated it will be submitted separately on or about December 1, 1979.

These changes have been reviewed by the Nuclear Safety Review and Audit Committee and reviewed and approved by the Operations Review Committee.

Schedule of Change

Boston Edison Company intends to make modifications during the January 1980 refueling outage whose duration could be minimized by use of this Technical Specification Change. Thus Boston Edison would like this proposed Technical Specification Change to be effective upon NRC approval. As previously mentioned, this letter is being sent with a report to follow, in order to initiate this change into the Commission's Technical Specification Amendment process without delay.

Fee Consideration

In accordance with Section 170.12 of the Commission's Regulations, Boston Edison proposes this license change as Class III. Accordingly a check for Four Thousand Dollars ($4,000) is enclosed.

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Should you have any further questions on this subject, please do not hesitate to contact us.

Very truly yours,

J Edward Howard

Attachments

3 signed originals and 37 copies

Commonwealth of Massachusetts)
County of Suffolk)

Then personally appeared before me J. Edward Howard, who, being duly sworn, did state that he is Vice President - Nuclear of Boston Edison Company, the applicant herein, and that he is duly authorized to execute and file the submittal contained herein in the name and on behalf of Boston Edison Company and that the statements in said submittal are true to the best of his knowledge and belief.

My commission expires: July 6, 1984

Dorothy M. Lopes
Notary Public

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