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Docket No. 50-293  
EA 81-63

Boston Edison Company M/C Nuclear  
ATTN: Mr. F. M. Staszsky  
President  
800 Boylston Street  
Boston, Massachusetts 02199



Gentlemen:

Based on the results of NRC inspections conducted at the Pilgrim Nuclear Power Station between June 15 and September 30, 1981, and information supplied by Boston Edison Company, we conclude that insufficient review and attention is being given by Boston Edison Company management to the operation of the Pilgrim facility. You are responsible for the safe operation of the facility and are responsible for developing policies, practices and guidance sufficient to ensure that full attention is given to safety considerations raised by plant design, maintenance and operating practices. The fact that the matters described below occurred at the Pilgrim facility demonstrates that more aggressive involvement of higher management of the Boston Edison Company in the regular operation of the Pilgrim facility is necessary to assure the safety of these operations.

During the period of November 27, 1978 to June 5, 1981, the requirements of NRC regulation 10 CFR 50.44 were not met at the Pilgrim facility. This regulation establishes requirements for systems needed to prevent the buildup of combustible gas mixtures inside the containment structure after a serious loss of coolant accident (LOCA). Our probe into the circumstances surrounding this noncompliance disclosed serious problems in the management and control of safety-related activities. Furthermore, numerous occasions arose during the period whereby design changes and modifications associated with the installed containment atmosphere control system presented the opportunity to correct the deficiencies in the design, maintenance, and station procedures to achieve the required capability for control of post-LOCA combustible gases. However, a series of errors and management decisions prevented obtaining this control capability which demonstrated an unacceptable breakdown in the management and control of safety-related activities for the Pilgrim facility.

These included errors in procedure changes, corrective actions, maintenance, modifications and design reviews. For example, the operating procedure for the containment atmosphere control system was revised when plant management decided to close certain valves during plant operation. However, these closed valves precluded remote operation of the system which was necessary for this

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system to meet the requirements for post-LOCA control of combustible gases. Management safety reviews of this change failed to disclose the error. These reviews also did not disclose the fact that the closed valve positions were not reflected in the station drawings nor the emergency procedures. Later, in response to an NRC-identified item of noncompliance regarding the mispositioning and status of such valves, you stated that corrective actions were taken and that all safety systems had been checked and indicated that all such valve positions were in accordance with station drawings. Hindsight shows that this was not so; these containment atmosphere control system valves remained shut while the drawings showed them to be open. Subsequently, after you made hardware modifications to provide additional capability for remote operation of the containment atmosphere control system, certain pipes were cut and capped and selected components removed to provide parts for use elsewhere. This resulted in a loss of system capability that the previous modification was intended to provide. Neither the management reviews nor controls of this activity prevented or promptly corrected this error. This latter item was the subject of a prior enforcement action but is discussed here to point out that it was not an isolated mistake. It reflects the serious nature of the failures associated with the control of licensed activities. It further demonstrates that the series of noncompliances addressed by this enforcement action can be identified with a lack of management attention over a prolonged period.

Further, although Boston Edison Company, on the basis of information in Amendment 35 to the FSAR, should have known that the Pilgrim facility did not meet the requirements of 10 CFR 50.44, the Boston Edison Company informed the NRC in a letter dated October 19, 1979 that the Pilgrim facility did meet these requirements. Thereafter, when Boston Edison Company confirmed that these requirements were not met, you did not so inform the NRC. Our continuing investigation into the circumstances surrounding these matters may result in further action.

Another event occurred between September 12 and September 16, 1981, when improper maintenance procedures were followed resulting in a loss of the required redundancy for assuring that containment isolation valves would close automatically in the event of certain accidents. This reduction in safety was corrected after it was discovered and identified to the Pilgrim staff by the NRC resident inspector at the site. This was another example of a failure to properly review and control safety-related activities at the Pilgrim facility.

The circumstances surrounding these events and the need to initiate prompt and substantive corrective actions at the Pilgrim facility were discussed with your corporate officers, Messrs. Corry and Howard, and members of their staff by Mr. R. C. Haynes, Regional Administrator, Region I, during an enforcement conference held at the Region I office on October 15, 1981.

We view the failures in the management and control of safety-related activities at the Pilgrim facility as very serious matters requiring extraordinary regulatory actions to assure that you will put forth a set of actions that will correct the problems described in this letter. Therefore, we are taking the actions

set forth in the enclosures to this letter. Appendix A is a Notice of Violation and Proposed Imposition of Civil Penalties. Appendix A also presents a discussion of the application of NRC's enforcement policies, including the relevance of these policies to this case. Appendix B presents a calculation of the time period during which the Pilgrim facility operated while not in compliance with NRC regulations. Also enclosed is an Order imposing conditions on your license to operate the Pilgrim Nuclear Power Station, effective immediately. These actions are in accordance with the "Criteria for Determining Enforcement Action," sent to NRC licensees on December 31, 1974, and the Interim Enforcement Policy published in the Federal Register, 45 FR 66754 (October 7, 1980).

Item I of Appendix A refers to the several unacceptable breakdowns in the management and control of safety-related activities which resulted in your failure to provide a combustible gas control system capable of performing its safety function in accordance with 10 CFR 50.44. Pilgrim's containment atmosphere control system, which you relied on to perform this function, could not have been operated successfully if the postulated accident had occurred because the system was not properly designed or maintained, nor were appropriate procedures provided to the plant operators. Moreover, these conditions were identified by you only after the NRC required you to provide an analysis demonstrating that you met this regulation. In view of the circumstances of this case we are proposing a total penalty of \$250,000 for Item I.

Item II of Appendix A refers to the submittal of false information to the NRC and the delay in notifying the NRC after this was identified by you. In view of the circumstances of this case, we are proposing a total penalty of \$250,000 for Item II.

The event involving the violation of a Technical Specification limiting condition for operation (Item III of Appendix A) has been categorized in accordance with the Interim Enforcement Policy. This item refers to the loss of redundancy in certain protection circuits as a result of improperly planned maintenance activities. This is another example of a lack of adequate management control. Normally a civil penalty of \$40,000 is assigned for events of this nature. Because your management controls could have reasonably been expected to prevent occurrences of this nature we are proposing an increase of 25% in this penalty, for a penalty of \$50,000. The cumulative penalties proposed for all of these events are \$550,000.

You are requested to meet with me in my office to explain the cause of the lack of control of licensed activities and to discuss those actions that you have taken or plan to take in response to the enclosed Order Modifying License Effective Immediately that will provide continuing assurance that the NRC licensed activities at the Pilgrim facility are conducted in compliance with the Commission's regulations for protection of the public health and safety. This meeting will be held at your convenience but no later than 30 days from the date of this letter.

In addition to the above, we are continuing to review the circumstances surrounding the operation of your facility with elevated drywell temperatures and the associated safety-related significance of such operation. In this

regard you should be prepared to address this matter during the upcoming meeting in my office.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC Public Document Room.

The responses directed by this letter, including Appendix A and the Order, are not subject to the clearance procedures of the Office of Management and Budget, as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

"Original Signed By  
R. C. DeYoung"

Richard C. DeYoung, Director  
Office of Inspection and Enforcement

Enclosures:

1. Appendix A - Notice of Violation and Proposed Imposition of Civil Penalties
2. Appendix B - Calculation of Pilgrim Operating Days at Power
3. Order Modifying License

cc w/encls:

- A. F. Corry, Senior Vice President
- J. E. Howard, Vice President-Nuclear
- A. V. Morisi, Nuclear Operations Support Management
- R. D. Machon, Nuclear Operations Manager - Pilgrim Station

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