UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 7, 1989

The Honorable John Glenn
United States Senate
Washington, D.C. 20510

Dear Senator Glenn:

This responds to your letter of October 20, 1989, which forwarded a copy of a letter from Mr. Thomas A. Vetra to the Boston Edison Company regarding the Reactor Building inner and outer access doors at the Pilgrim Nuclear Power Station. The NRC also received a copy of Mr. Vetra's letter, and has discussed related issues with him several times over the past two years. His concerns fall into three broad areas:

1. Occupational safety issues related to personnel egress,
2. Breaches of secondary containment due to simultaneous opening of the inner and outer doors, and
3. Repetitive problems and poor maintenance of the doors.

The enclosed discussion with attached inspection reports and correspondence describes the NRC actions taken in areas related to Mr. Vetra's concerns regarding the reactor building doors and provides information which should be helpful in addressing the concerns raised in his letter.

Sincerely,

James M. Taylor
Executive Director for
Operations

Enclosure: As Stated

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Distribution:
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T. Martin, RI
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Public Document Room
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Commonwealth of Massachusetts (2)
Docket No. 50-293
EDO Reading File
EDO Control No. 0004855
J. Scinto, OGC
R. Wessman, NRR
D. McDonald, NRR
CRC No. 89-1160
CA
J. Macdonald, SRI - Pilgrim

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| Kolonauski/meo<br>12/1/89 | Blough | Johnson | Kane | Martin | Russell<br>12/1/89 | Taylor<br>12/7/89 |

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## ENCLOSURE

## DISCUSSION OF REACTOR BUILDING DOOR ISSUES

1. Occupational Safety Issues Related to Personnel Egress

When Mr. Vetra discussed this matter with the NRC resident inspector in late Summer 1987, it was evaluated as a personnel safety issue rather than a nuclear or radiological safety issue. The inspector referred the matter to BECo, as the inspector had indicated to Mr. Vetra at the time. Also, after an NRC public meeting in Duxbury, Massachusetts in early Fall 1987, an NRC Region I manager discussed with Mr. Vetra his option to refer the matter to the Occupational Safety and Health Administration (OSHA).

2. Breaches of Secondary Containment Due to Simultaneous Opening of the Inner and Outer Doors

The secondary containment acts as an additional barrier, around the primary containment, to limit radioactive releases in the event of an accident. The Reactor Building doors form part of the secondary containment barrier. If both doors remained open during an accident, an increase in radioactive releases could occur. However, momentary opening of both doors during routine plant conditions is of minor safety significance due to the low probability that they would remain open during a plant event. This is particularly true when (1) the doors are not obstructed from closure, and (2) personnel are present to ensure proper closure. Stationing individuals to monitor the doors is an acceptable (albeit costly, as Mr. Vetra indicates) compensatory measure for failure of the mechanical interlock that prevents simultaneous opening of the doors. (It should be noted that the NRC staff has also approved a different secondary containment door design that uses only cautionary lights and an alarm rather than the mechanical interlocks. In this design, momentary inadvertent simultaneous opening of both doors is a more common occurrence.)

When both doors are opened, the containment is technically inoperable. Should the condition persist, license conditions would require that the plant be placed in a cold shutdown condition within 24 hours. Thus far, each time the doors were simultaneously opened, they were shut within a few seconds. This action restored the secondary containment barrier, thereby satisfying the license conditions.

NRC has followed up on these events to ensure that the licensee was responding properly. Results of NRC review are documented in routine inspection reports, which are publicly available. Examples are provided in Paragraph 2.3.3 of NRC Region I Inspection Report 50-293/89-05 and in Paragraph 2.3.4 of NRC Region I Inspection Report 50-293/89-10. These reports are enclosed as Attachments I and II, respectively.

3. Repetitive Problems and Poor Maintenance of the Doors

The licensee's maintenance program was weak prior to 1987, and substantial work order backlogs existed. Improvements and progress were made during 1987 and 1988, with the most notable improvements occurring in mid-1988. Overall, the work order backlog is now under control and the licensee typically assigns the appropriate priority to maintenance items.

The Reactor Building doors' failure rate must be viewed in light of the fact that they are heavily used and are located in a very heavily travelled area of the plant. At many other nuclear plants, corresponding doors suffer somewhat similar and frequent problems. Nonetheless, in Paragraph 2.3.3 of Report 89-05 (previously referenced), our inspectors reviewed the door failure history and determined that additional licensee evaluation of the failure rate and the root cases was warranted. (A courtesy copy of the report was sent to Mr. Vetra. See Attachment III). The licensee concluded that the doors should be replaced and has recently done so.

UNITED STATES
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REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406

ATTACHMENT I

JUN 09 1989

Docket No. 50-293

Boston Edison Company
ATTN: Mr. Ralph G. Bird
Senior Vice President-Nuclear
RFD #1 Rocky Hill Road
Plymouth, Massachusetts 02360

Gentlemen:

Subject: NRC Region I Inspection Report No. 50-293/89-05

This refers to the inspection conducted by the NRC Restart Staff on March 11 through April 10, 1989, at the Pilgrim Nuclear Power Station, Plymouth, Massachusetts. Areas examined during this inspection are described in the NRC Region I Inspection Report which is enclosed with this letter.

The Restart Staff, through selected around-the-clock shift inspections and routine program inspections, observed management controls, conduct of operations, and startup testing activities during the 5 to 25% power plateau of the licensee's Power Ascension Test Program. Based on these reviews conducted per the NRC inspection plan specifically developed to cover this period, the Restart Staff determined that licensee management provided active and effective oversight and was directly involved in assuring safe operation.

Results of the NRC Restart Staff inspections and assessments are taken into consideration by the NRC Restart Assessment Panel during ongoing licensee performance reviews and deliberations at each Power Ascension Test Program approval point.

Sincerely,

Samuel J. Collins, Deputy Director
Division of Reactor Projects

Enclosure:
NRC Region I Inspection Report No. 50-293/89-05

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REGION I
475 ALLENDALE ROAD
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ATTACHMENT II

Docket No. 50-293

NOV 2 1 1989

Boston Edison Company
ATTN: Mr. Ralph G. Bird
Senior Vice President-Nuclear
Rocky Hill Road
Plymouth, Massachusetts 02360

Gentlemen:

Subject: NRC Region I Inspection Report No. 50-293/89-10

This refers to the inspection conducted by the NRC Restart Staff on August 22 through October 1, 1989 at the Pilgrim Nuclear Power Station, Plymouth, Massachusetts. Areas examined during this inspection are described in the NRC Region I Inspection Report which is enclosed with this letter.

The Restart Staff, through selected around-the-clock shift inspections and routine program inspections, observed management controls, conduct of operations and startup testing activities of the licensee's Power Ascension Test Program. Results of the NRC Restart Staff inspections and assessments are taken into consideration by the NRC Restart Assessment Panel during ongoing licensee performance reviews and deliberations at each Power Ascension Test Program approval point.

Based on the results of this inspection, it appears that one of your activities related to locked high radiation area access control was not conducted in accordance with NRC requirements, as set forth in the Notice of Violation, Appendix A, enclosed herein. This violation has been categorized by severity level in accordance with the revised NRC Enforcement Policy (10 CFR 2, Appendix C) published in the Federal Register Notice (Enforcement Policy 1988). You are required to respond to this letter and in preparing your response, you should follow the instructions in Appendix A.

Also, lapses in strict procedural adherence continue to be noted by both your staff and the NRC Restart Staff. While the NRC Restart Staff and you have previously identified a weakness in this area, increased management attention is warranted to improve performance in this area.

The response directed by this letter and the accompanying notice 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.

Your cooperation with us in this matter is appreciated.

Sincerely,

William F. Kane, Director
Division of Reactor Projects

Enclosures:
1. Appendix A, Notice of Violation
2. NRC Region I Inspection Report No. 50-293/89-10 w/attachments

cc w/encls:
K. Highiill, Vice President, Nuclear Operations and Station Director
R. Anderson, Plant Manager
J. Dietrich, Licensing Division Manager
E. Robinson, Nuclear Information Manager
R. Fairbanks, Nuclear Engineering Department Manager
The Honorable Edward M. Kennedy
The Honorable John F. Kerry
The Honorable Edward J. Markey
The Honorable Edward P. Kirby
The Honorable Peter V. Forman
The Honorable Nicholas J. Costello
The Honorable Lawrence R. Alexander
B. McIntyre, Chairman, Department of Public Utilities
Chairman, Plymouth Board of Selectmen
Chairman, Duxbury Board of Selectmen
Plymouth Civil Defense Director
P. Agnes, Assistant Secretary of Public Safety, Commonwealth of Massachusetts
S. Pollard, Massachusetts Secretary of Energy Resources
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