

May 16, 1994

Docket No. 50-293

Mr. E. Thomas Boulette, Ph.D  
Senior Vice President - Nuclear  
Boston Edison Company  
Pilgrim Nuclear Power Station  
RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

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Dear Mr. Boulette:

SUBJECT: ISSUANCE OF AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-35, PILGRIM NUCLEAR POWER STATION (TAC NO. M88843)

The Commission has issued the enclosed Amendment No. 153 to Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station. This amendment is in response to your application dated February 9, 1994.

This amendment changes the Technical Specifications and the License. These changes consist of revised wording for the License, clarifying wording to aid operators in selecting the correct pressure/temperature curve during startup and shutdown operations, and removal of certain obsolete mechanical snubber acceptance criteria.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register Notice.

Sincerely,

Original signed by  
Ronald B. Eaton, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 153 to License No. DPR-35
2. Safety Evaluation

cc w/enclosures:  
See next page

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NAME	SLittle	JHarold	REaton	<i>K. MANOLY</i>	C. marco	WButler <i>LB</i>
DATE	5/2/94	5/3/94	5/3/94	5/4/94	5/9/94	5/16/94

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Document Name: PIM88843.AMD

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 16, 1994

Docket No. 50-293

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Senior Vice President - Nuclear  
Boston Edison Company  
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Sincerely,

A handwritten signature in black ink, appearing to read "Ronald B. Eaton", is written over the typed name.

Ronald B. Eaton, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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1. Amendment No. 153 to  
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cc w/enclosures:  
See next page

Mr. E. Thomas Boulette

Pilgrim Nuclear Power Station

cc:

Mr. Edward S. Kraft,  
Vice President of Nuclear  
Operations & Station Director  
Pilgrim Nuclear Power Station  
RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

Resident Inspector  
U. S. Nuclear Regulatory Commission  
Pilgrim Nuclear Power Station  
Post Office Box 867  
Plymouth, Massachusetts 02360

Chairman, Board of Selectmen  
11 Lincoln Street  
Plymouth, Massachusetts 02360

Office of the Commissioner  
Massachusetts Department of  
Environmental Protection  
One Winter Street  
Boston, Massachusetts 02108

Office of the Attorney General  
One Ashburton Place  
20th Floor  
Boston, Massachusetts 02108

Mr. Robert M. Hallisey, Director  
Radiation Control Program  
Massachusetts Department of  
Public Health  
305 South Street  
Boston, Massachusetts 02130

Regional Administrator, Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Mr. Paul J. Hamilton  
Licensing Division Manager  
Boston Edison Company  
600 Rocky Hill Road  
Plymouth, Massachusetts 02360-5599

Mr. H. Vernon Oheim  
Manager, Reg. Affairs Dept.  
Pilgrim Nuclear Power Station  
RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

Mr. David F. Tarantino  
Nuclear Information Manager  
Pilgrim Nuclear Power Station  
RFD #1, Rocky Hill Road  
Plymouth, Massachusetts 02360

Mr. Thomas Rapone  
Secretary of Public Safety  
Executive Office of Public Safety  
One Ashburton Place  
Boston, Massachusetts 02108

Mr. David Rodham, Director  
Massachusetts Emergency Management  
Agency  
400 Worcester Road  
P.O. Box 1496  
Framingham, Massachusetts 01701-0317  
Attn: James Muckerheide

Chairmen, Citizens Urging  
Responsible Energy  
P. O. Box 2621  
Duxbury, Massachusetts 02331

Citizens at Risk  
P. O. Box 3803  
Plymouth, Massachusetts 02361

W. S. Stowe, Esquire  
Boston Edison Company  
800 Boylston St., 36th Floor  
Boston, Massachusetts 02199

Chairman  
Nuclear Matters Committee  
Town Hall  
11 Lincoln Street  
Plymouth, Massachusetts 02360



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

BOSTON EDISON COMPANY

DOCKET NO. 50-293

PILGRIM NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 153  
License No. DPR-35

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Boston Edison Company (the licensee) dated February 9, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-35 is hereby amended to read as follows:

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P PDR

Technical Specifications

The Technical Specifications contained in Appendix A, as revised by NRC approved and docketed Amendments, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 16, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 153

FACILITY OPERATING LICENSE NO. DPR-35

DOCKET NO. 50-293

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

License Page 3

Appendix A Page 123

Appendix A Page 137c

Insert

License Page 3

Appendix A Page 123

Appendix A page 137c

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised by NRC approved and docketed Amendments, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Records

Boston Edison shall keep facility operating records in accordance with the requirements of the Technical Specifications.

D. Equalizer Valve Restriction - DELETED

E. Recirculation Loop Inoperable

The reactor shall not be operated with one recirculation loop out of service for more than 24 hours. With the reactor operating, if one recirculation loop is out of service, the plant shall be placed in a hot shutdown condition within 24 hours unless the loop is sooner returned to service.

## LIMITING CONDITION FOR OPERATION

### 3.6 PRIMARY SYSTEM BOUNDARY

#### Applicability:

Applies to the operating status of the reactor coolant system.

#### Objective:

To assure the integrity and safe operation of the reactor coolant system

#### Specification:

##### A. Thermal and Pressurization Limitations

1. The average rate of reactor coolant temperature change during normal heatup or cooldown shall not exceed 100°F/hr when averaged over a one-hour period except when the vessel temperatures are above 450°F. The reactor vessel flange to adjacent reactor vessel shell temperature differential shall not exceed 145°F.
2. The reactor vessel shall not be pressurized for hydrostatic and/or leakage tests, and subcritical or critical core operation shall not be conducted unless the reactor vessel temperatures are above those defined by the appropriate curves on Figures 3.6.1, 3.6.2, and 3.6.3. (Linear interpolation between curves is permitted). At stated pressure, the reactor vessel bottom head may be maintained at temperatures below those temperatures corresponding to the adjacent reactor vessel shell as shown in Figures 3.6.1 and 3.6.2.

## SURVEILLANCE REQUIREMENTS

### 4.6. PRIMARY SYSTEM BOUNDARY

#### Applicability:

Applies to the periodic examination and testing requirements for the reactor cooling system.

#### Objective:

To determine the condition of the reactor coolant system and the operation of the safety devices related to it.

#### Specification:

##### A. Thermal and Pressurization Limitations

1. During heatups and cooldowns, with the reactor vessel temperature less than or equal to 450°F, the temperatures at the following locations shall be permanently logged at least every 15 minutes until the difference between any two readings at individual locations taken over a 45 minute period is less than 5°F:
  - a. Reactor vessel shell adjacent to reactor vessel flange
  - b. Reactor vessel shell flange
  - c. Recirculation loops A and B
2. Reactor vessel shell temperatures, including reactor vessel bottom head, and reactor coolant pressure shall be permanently logged at least every 15 minutes whenever the shell temperature is below 220°F and the reactor vessel is not vented.

Test specimens of the reactor vessel base, weld and heat affected zone metal subjected to the highest fluence of greater than 1 Mev neutrons shall be installed in the reactor vessel adjacent to the vessel wall at the core midplane level. The specimens and sample program shall conform to the



4.6.I Sho Suppressors (Snubbers)

Specification 4.6.I.2.B, or 4.6.I.2.C, as applicable, an additional 10% of that type of snubber shall be functionally tested.

B. General Snubber Functional Test Acceptance Criteria (Hydraulic and Mechanical)

The general snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber release, or bleedrate, as applicable, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

C. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

3. Snubber Service Life Monitoring

A. A record of the service life



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 153 TO FACILITY OPERATING LICENSE NO. DPR-35  
BOSTON EDISON COMPANY  
PILGRIM NUCLEAR POWER STATION  
DOCKET NO. 50-293

1.0 INTRODUCTION

By letter dated February 9, 1994, the Boston Edison Company (the licensee) requested an amendment to Technical Specifications (TSs) to Facility Operating License No. DPR-35 for Pilgrim Nuclear Power Station (PNPS). The requested changes would: (1) revise wording for page 3 of License DPR-35, (2) add clarifying words to aid operators in selecting the correct pressure/temperature curve during startup and shutdown operations, and (3) remove an obsolete mechanical snubber acceptance criterion.

A discussion of the proposed changes and the NRC staff evaluation and findings relative to each addressed are stated below.

2.0 EVALUATION

The licensee is proposing the following three administrative changes to the TSs:

- (1) Revise wording on page three to License DPR-35 to eliminate the need for the License to reference the latest approved amendment.
- (2) Add a clarifying phrase to TS section 3.6.A.2 as an aid to operators when selecting the correct pressure/temperature curve during startup and shutdown operations.
- (3) Remove an obsolete surveillance requirement for increased mechanical snubber functional testing after a 50% increase in drag force since the last functional test.

The first request is to reword Section 3.B of License DPR-35 to eliminate reference to the last amendment number issued for the License. Currently for every TS Amendment issued, page 3 of the Operating License must be changed to signify the latest amendment. The licensee is proposing to modify the paragraph to eliminate the need to issue this page with every amendment. This change is acceptable because the License does not need to identify the latest amendment in effect, as the licensee is required to operate in accordance with the TS as amended. This amendment change will reduce the possibility of an error if the correct number is not updated with every change issued.

The second request is to TS Section 3.6 paragraph 3.6.A.2 "Primary System Boundary." The change would correct an omission made in an earlier amendment by adding the words "subcritical or" to the list of operational phases referenced in the paragraph. This will enhance the reference to the appropriate pressure/temperature curves presented in Figures 3.6.1, 3.6.2, and 3.6.3. Figure 3.6.1 provides a set of pressure/temperature curves used during hydrostatic and/or leakage testing. Figure 3.6.2 is used during startup and shutdown operations with the reactor subcritical. Figure 3.6.3 is used when the reactor is critical. Adding a reference to subcritical operations within paragraph 3.6.A.2 will aid operators when they are in startup or shutdown mode of operation, by ensuring they are aware of the need to use these curves during "subcritical" operations.

The third change would modify TS Section 4.6.1.2 paragraph C.1 "Mechanical Snubbers Functional Test Acceptance Criteria," by removing the following sentence; "Drag Force shall not have increased more than 50% since the last functional test." Correspondence with the vendor for the mechanical snubbers in use at PNPS, Pacific Scientific, indicates they do not require this acceptance criterion for their snubbers and they recommend removal of this TS requirement. The requirement to monitor the increase in drag force from the last functional test has no meaningful engineering basis, therefore this change is acceptable.

In addition, functional testing of mechanical snubbers at PNPS will continue to include drag force testing in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Subsection IWF-5000.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Massachusetts State Official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 12359). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR

51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Harold

Date: May 16, 1994