

JUN 24 1975

Docket No. 50-293

Boston Edison Company  
ATTN: Mr. Maurice J. Feldmann  
Vice President - Operations  
& Engineering  
800 Boylston Street  
Boston, Massachusetts 02199

Gentlemen:

The Commission has issued the enclosed Amendment No. 11 to Facility License No. DPR-35 for the Pilgrim Nuclear Power Station, Unit 1. This amendment includes Change No. 13 to the Environmental Technical Specifications, Appendix B, and is in response to your request dated November 11, 1974.

This amendment increases limits on the pH range of chemical discharges from 6.8-8.5 to 5.8-8.5 and will allow station use and discharge of fresh water as supplied by the Town of Plymouth without subsequent treatment of this water to meet allowable pH limits.

We have concluded that the change authorized by this amendment does not involve an environmental impact or a significant hazards consideration. The staff evaluation supporting this change is enclosed for your use.

A copy of the related Federal Register Notice is also enclosed.

Sincerely,

Dennis L. Ziemann, Chief  
Operating Reactors Branch 2  
Division of Reactor Licensing

Enclosures:

1. Amendment No. 11  
w/Change No. 13
2. Negative Declaration &  
Environmental Impact  
Appraisal
3. Federal Register Notice

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cc w/enclosures:

Mr. W. M. Sides, Jr.  
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Mr. J. E. Larson  
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Boston Edison Company  
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Plymouth, Massachusetts 02360

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Boston Edison Company  
800 Boylston Street  
Boston, Massachusetts 02199

Henry Kolbe, M.D. (w/cy of inc)  
Acting Commissioner of Public  
Health  
Massachusetts Department of  
Public Health  
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Boston, Massachusetts 02111

Mr. Arthur W. Bromwell  
Commissioner of Natural Resources  
Department of Natural Resources  
100 Cambridge St.  
Boston, Massachusetts 02202

Mr. David F. Tarantino  
Chairman, Board of Selectmen  
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ATTN: Jack Anderson  
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bcc: H. J. McAlduff, ORO  
J. R. Buchanan, HNL  
T. B. Abernathy, DTIE  
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Nuclear Engineering Department  
Boston Edison Company  
800 Boylston St.  
Boston, Massachusetts

Plymouth Public Library  
North Street  
Plymouth, Massachusetts 02360

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BOSTON EDISON COMPANY

DOCKET NO. 50-293

PILGRIM NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 11  
License No. DPR-35

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Boston Edison Company (the licensee) dated November 11, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - 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.
2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility License No. DPR-35 is hereby amended to read as follows:

"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised, are hereby incorporated in the license. The licensee

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shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 13."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief  
Operating Reactors Branch 2  
Division of Reactor Licensing

Attachment:  
Change No. 13 to the  
Technical Specifications

Date of Issuance: JUN 24 1975

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ATTACHMENT TO LICENSE AMENDMENT NO. 11  
CHANGE NO. 13 TO THE TECHNICAL SPECIFICATIONS  
FACILITY OPERATING LICENSE NO. DPR-35  
BOSTON EDISON COMPANY  
PILGRIM NUCLEAR POWER STATION, UNIT 1  
DOCKET NO. 50-293

Revise Appendix B as follows:

Remove page 8 and insert the attached page. The revised page has marginal lines indicating the changes.

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OPERATIONAL OBJECTIVES

SURVEILLANCE REQUIREMENTS

1.3 CHEMICAL DISCHARGES

Applicability:

Applies to all chemicals discharged to Cape Cod Bay other than chlorine, routine chemical laboratory wastes, and minor quantities of chemical decontamination wastes.

Intent:

To ensure that chemical releases in any discharges to Cape Cod Bay are not harmful to marine organisms.

Specification:

- A. All chemical discharges shall be diluted by the plant cooling water during release. No release will be made without at least one circulating cooling water pump in operation.
- B. The hydrogen ion concentration of discharges into the cooling water system shall be controlled within pH limits of 5.8 to 8.5.

13

2.3 CHEMICAL DISCHARGES

Applicability:

Applies to the monitoring of chemical discharges other than chlorine, routine chemical laboratory wastes, and minor quantities of chemical decontamination wastes.

Intent:

To maintain adequate records of chemical discharges.

Specification:

Records of chemical releases to Cape Cod Bay will be maintained such that compliance with the operational objectives can be readily determined.

Records will be maintained on the pH of chemical discharges into the cooling water system.

1.3 BASIS:

Expected chemical releases to Cape Cod Bay are reported in Table 1. Requiring that these chemical discharges be diluted by the plant cooling water system will insure that concentrations of chemicals released to the Bay are very low. In nearly all cases, the concentrations of added materials will be a small fraction of the concentrations in normal sea water or within allowable concentrations for drinking water.

The maximum rate of discharge of chemical wastes, based on available pumping capacity associated with the highest volume discharges is approximately 200 gpm; hence, the minimum dilution ratio associated with mixing of the chemical wastes with the sea water in the discharge canal is about 800. This dilution is more than adequate to ensure that the pH of the station discharge at its point of mixing with Cape Cod Bay will fall within the acceptable range for coastal and marine waters as stated in the Commonwealth's Water Quality Standards.

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

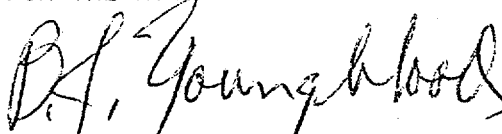
NEGATIVE DECLARATION  
REGARDING PROPOSED CHANGES TO THE  
TECHNICAL SPECIFICATIONS OF LICENSE NO. DPR-35  
PILGRIM NUCLEAR POWER STATION UNIT 1  
DOCKET NO. 50-293

The Nuclear Regulatory Commission (the Commission) has considered the issuance of a change to the Technical Specifications Appendix B of Facility Operating License No. DPR-35. This change would authorize the Boston Edison Company (the licensee) to operate the Pilgrim Nuclear Power Station Unit 1 with increased limits on hydrogen ion concentrations in chemical wastes discharged to the cooling water system.

The Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, has prepared an environmental impact appraisal for the proposed change to the Technical Specifications Appendix B, of License No. DPR-35, Pilgrim Nuclear Power Station, described above. On the basis of this appraisal, we have concluded that an environmental impact statement for this particular action is not warranted because there will be no significant environmental impact attributable to the proposed action. The environmental impact appraisal is available for public inspection at the Commission's Public Document Room, 1717 H St., N. W., Washington, D. C., and at the Plymouth Public Library, North Street, Plymouth, Massachusetts.

Dated at Rockville, Maryland, this <sup>24<sup>th</sup></sup> day of June , 1975.

FOR THE NUCLEAR REGULATORY COMMISSION



B. J. Youngblood, Chief  
Environmental Projects Branch 3  
Division of Reactor Licensing



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

ENVIRONMENTAL IMPACT APPRAISAL BY THE DIVISION OF REACTOR LICENSING

SUPPORTING AMENDMENT NO 11 TO DPR-35

CHANGE NO. 13 TO THE TECHNICAL SPECIFICATIONS

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION UNIT 1

1. Description of the Proposed Action

By letter dated November 11, 1974, the Boston Edison Company submitted a proposed change to the Technical Specifications Appendix B to License No. DPR-35. The proposed change requested relief from the operational objective specifying the lower limit on control of hydrogen ion concentration in chemical discharges to the cooling water system.

Relief was requested because the fresh water supplied to the station has a pH range of 5.9 to 7.0, whereas the operational objective specification had a chemical discharge pH range of 6.8 to 8.5. This fresh water is the principal volumetric constituent of the chemical discharge to the cooling water system, and at times is discharged directly to the cooling water system without addition of chemicals. Extending the lower pH limit for chemical discharges to the cooling water system from 6.8 to 5.8 will permit station use of this water without requiring any special treatment to adjust its pH level prior to discharge.

Boston Edison Company is presently licensed to possess and operate the Pilgrim Nuclear Power Station Unit 1, located in Plymouth County, Massachusetts, at power levels up to 1998 Mwt. The proposed change does not result in an increase in power levels.

2. Environmental Impacts of the Proposed Action

Potential environmental impacts associated with the proposed action are those which might be expected by pH effects from any chemical discharge to a receiving body of water.



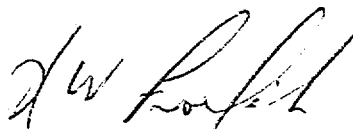


The environmental impact resulting from the proposed action would be that resulting from lowering the pH of the discharged chemicals stream from a value of 6.8 to a value of 5.8. However, the maximum flow rate of this stream is 200 gpm, and this stream will be diluted by a factor of at least 800:1 since no chemicals may be discharged unless at least one circulating pump (nominal flow 160,000 gpm) is in operation. At this level of dilution the impact due to change in pH of the coolant water discharge stream entering Cape Cod Bay will be negligible. Ocean water pH ranges from 7.4 to 8.4, with a mean of about 8.0, and the addition of the chemicals discharge stream at a pH of 5.8 results in an unmeasurable change in pH of the coolant water flow. The proposed action does not change the type of chemicals discharged from Unit 1. The environmental impact resulting from this change is not significant, and is not different than that predicted and described in the staff's Final Environmental Statement for Unit 1.

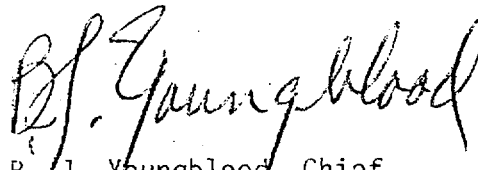
The Commonwealth of Massachusetts' Water Quality Standards for Coastal and Marine Waters Assigned to Class SA (which standards apply to Pilgrim Station) specifies an allowable pH range of discharges to the receiving body of water of from 6.8 to 8.5. The pH of the coolant water discharged to Cape Cod Bay will remain between probable limits of 7.4 to 8.4, and the proposed change will not violate these standards.

### 3. Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis and the staff evaluation, it is concluded that there will be no environmental impact attributable to the proposed action other than has already been predicted and described in the Commission's FES for the Pilgrim Nuclear Power Station Unit 1. Also, the discharge will comply with applicable Commonwealth of Massachusetts water quality standards for coastal and marine waters. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared, and that a negative declaration to this effect is appropriate.



R. W. Froelich, Project Manager  
Environmental Projects Branch 3  
Division of Reactor Licensing



B. J. Youngblood, Chief  
Environmental Projects Branch 3  
Division of Reactor Licensing

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-293

BOSTON EDISON COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 11 to Facility Operating License No. DPR-35 issued to Boston Edison Company which revised Technical Specifications for operation of the Pilgrim Nuclear Power Station, Unit 1, located in Plymouth County, Massachusetts. The amendment is effective as of its date of issuance.

The amendment revises portions of Section 1 of the Environmental Technical Specifications to reflect a change in the pH limits for chemical discharges to the plant cooling water system.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

For further details with respect to this action, see (1) the application for amendment dated November 11, 1974, (2) Amendment No. 11 to License No. DPR-35, with Change No. 13, and (3) the Commission's Negative Declaration dated June 24, 1975 (which is being published in the Federal Register), and associated environmental impact appraisal. These items are

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available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Plymouth Public Library, North Street, Plymouth, Massachusetts.

A copy of item (2) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Licensing.

Dated at Bethesda, Maryland, this *24<sup>th</sup>* day of *June* 1975.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief  
Operating Reactors Branch 2  
Division of Reactor Licensing

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