

September 8, 1988

Docket No. 50-293

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

Dear Mr. Bird:

SUBJECT: ISSUANCE OF AMENDMENT NO. 121 TO FACILITY OPERATING
LICENSE NO. DPR-35, PILGRIM NUCLEAR POWER STATION

Reference: TAC No. 65493, ATWS RPT/ARI Instrumentation Test
Frequency Change

The Commission has issued the enclosed Amendment No. 121 to Facility Operating License No. DPR-35 for Pilgrim Nuclear Power Station. This amendment consists of changes to the Technical Specifications regarding the surveillance test frequency for ATWS RPT/ARI instruments. This is in response to your letter of May 20, 1987, in which you requested our consideration and attendant analysis of such a change.

The staff has completed its analysis of your request and found the proposed changes to be acceptable. (A copy of the Safety Evaluation is provided as Enclosure 2). Please be advised that the staff is preparing a generic letter regarding the Technical Specifications for the ATWS systems. Requirements arising from the generic letter will supersede current Technical Specification requirements - including those addressed by this amendment.

The Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Daniel G. McDonald, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects I/II

Enclosures:

- 1. Amendment No. 121 to DPR-35
- 2. Safety Evaluation

cc w/enclosures:
See next page

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

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Sincerely,

A handwritten signature in black ink that reads "Daniel G. McDonald".

Daniel G. McDonald, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 121 to DPR-35
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Ralph G. Bird
Boston Edison Company

Pilgrim Nuclear Power Station

cc:

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AMENDMENT NO. 121 TO FACILITY OPERATING LICENSE NO. DPR-35

Docket File ←

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Hubert Li, NRB/SICB, 7E-12
cc: Licensee/Applicant Service List

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

BOSTON EDISON COMPANY
DOCKET NO. 50-293
PILGRIM NUCLEAR POWER STATION
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 121
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 May 20, 1987 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; 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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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 121, 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 the date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard H. Wessman, Director
Project Directorate I-3
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 8, 1988

ATTACHMENT TO LICENSE AMENDMENT NO.121
FACILITY OPERATING LICENSE NO. DPR-35
DOCKET NO. 50-293

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove Pages

66b

77

Insert Pages

66b

77

Table 4.2.G

Minimum Test and Calibration Frequency for
ATWS RPT/ARI Instrumentation

Instrument Channel	Instrument Functional Test (2)	Calibration (2)	Instrument Check (2)
1. Reactor High Pressure	(1) (7)	(7)	Once/day
2. Reactor Low-Low Water Level	(1) (7)	(7)	Once/day

4.2 BASES (Cont'd)

The automatic pressure relief instrumentation can be considered to be a 1 out of 2 logic system and the discussion above applies also.

The instrumentation which is required for the recirculation pump trip and alternate rod insertion systems incorporate analog transmitters. The transmitter calibration frequency is once per refueling outage, which is consistent with both the equipment capabilities and the requirements for similar equipment used at Pilgrim. The Trip Unit Calibration and Instrument Functional Test is specified at monthly, which is the same frequency specified for other similar protective devices. An instrument check is specified at once per day; this is considered to be an appropriate frequency, commensurate with the design applications and the fact that the recirculation pump trip and alternate rod insertion systems are backups to existing protective instrumentation.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 121 TO FACILITY OPERATING LICENSE DPR-35

BOSTON EDISON COMPANY

PILGRIM NUCLEAR STATION

DOCKET NO. 50-293

1.0 INTRODUCTION

By application dated May 20, 1987, Boston Edison Company (the licensee) requested an amendment to the Technical Specifications for Facility Operating License No. DPR-35 for the Pilgrim Nuclear Station. The Amendment would change the Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip/Alternate Rod Insertion (RPT/ARI) system analog trip unit calibration procedure, which consists of injecting a simulated electrical signal into the measurement channels without physically "valving-out" the transmitter. The BASES wording on page 77 is modified to reflect the proposed changes.

2.0 EVALUATION

The Pilgrim Station ATWS RPT/ARI system uses Rosemount transmitters to monitor reactor vessel high pressure and low water level. Technical Specifications Table 4.2.G currently specifies that the instrument functional test should be performed according to Note (1). Note (1) states that functional testing should be done initially once per month until exposure hours reach 2.0×10^5 ; thereafter, according to Figure 4.1.1, at an interval not less than one month nor more than three months. The transmitters should be calibrated once per operating cycle and the trip units should be calibrated once every three months. The proposed change would add a reference to Note (7), in addition to Note (1), to the column headed "Instrument Functional Test," and would also substitute Note (7) for the current wording found in the "calibration" column.

Note (7) states:

Calibration of analog trip units will be performed concurrent with functional testing. The functional test will consist of injecting a simulated electrical signal into the measurement channel. Calibration of associated analog transmitters will be performed each refueling outage.

GE topical report NEDO-21617 "Analog Transmitter/Trip Unit System for Engineered Safeguard Sensor Trip Inputs" provides the basis for Rosemount Transmitter performance reliability. The staff SER dated June 27, 1978 accepted the once per cycle functional test frequency for this type of analog transmitter.

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The proposed Technical Specification will allow the licensee to perform the analog trip unit functional test without valving-out the transmitter. The simulated electrical test signal will be injected at the trip unit, rather than at the transmitter. The trip units are located in the instrument room, but the transmitters are located in a higher radiation environment. This change will minimize radiation exposure on testing personnel while performing the instrument surveillance test.

This method of testing trip units has been implemented on Pilgrim's Reactor Protection System and Engineered Safeguard System trip units. The introduction of Note (7) on Table 4.2.G will make the ATWS RPT/ARI system consistent with other Pilgrim technical specifications that involve analog transmitter/trip units.

Accordingly, the staff has determined that the proposed test procedure does not affect plant safety and is acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. 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.

4.0 CONCLUSION

Based on our review, the staff finds that the proposed changes to Technical Specification Table 4.2.G and the modified BASES wording on page 77 are acceptable on an interim basis. The staff is preparing a generic letter regarding implementation of the Technical Specification for the ATWS mitigation systems required by 10 CFR 50.62. The requirements developed from that generic letter will supersede current requirements in the Pilgrim Technical Specifications, including those affected by this amendment.

5.0 ACKNOWLEDGEMENT:

Principal Contributor: H. Li

Dated: September 8, 1988