May 23, 1988

Docket No.: 50-293

Mr. Ralph G. Bird
Senior Vice President - Nuclear
Boston Edison Company
800 Boylston Street
Boston, Massachusetts 02199

SUBJECT: ISSUANCE OF AMENDMENT NO. 117 TO FACILITY OPERATING LICENSE NO. DPR-35 (TAC #67524) PILGRIM NUCLEAR POWER STATION

Dear Mr. Bird:

The Commission has issued the enclosed Amendment No. 117 to Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station. This amendment consists of changes to the Technical Specifications in response to your application dated January 25, 1988.

This amendment removes references to an average power range monitor down scale scram functions.

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

/S/

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

Enclosures:
1. Amendment No. 117 to DPR-35
2. Safety Evaluation

cc: w/enclosures:
See next page

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w/additions as noted to SE

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

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Daniel G. McDonald, Senior Project Manager
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AMENDMENT NO. 117 TO FACILITY OPERATING LICENSE DPR-35-
PILGRIM NUCLEAR POWER STATION

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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. 117
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 January 25, 1988 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:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 117 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 30 days after the date of issuance.

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: May 23, 1988

ATTACHMENT TO LICENSE AMENDMENT NO.117
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. The corresponding overleaf pages are provided to maintain document completeness.

Remove Pages	Insert Pages
27	27
29	29
30	30

TABLE 3.1.1 REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT

Minimum Number Operable Inst. Channels per Trip(1) System	Trip Function	Trip Level Setting	Modes in Which Function Must Be Operable			Action(1)
			Refuel (7)	Startup/Hot Standby	Run	
1	Mode Switch in Shutdown		X	X	X	A
1	Manual Scram		X	X	X	A
	IRM					
3	High Flux	≤120/125 of full scale	X	X	(5)	A
3	Inoperative		X	X	(5)	A
	APRM					
2	High Flux	* (14) (15)	(17)	(17)	X	A or B
2	Inoperative	(13)	X	X(9)	X	A or B
2	High Flux (15%)	≤15% of Design Power	X	X	(16)	A or B
2	High Reactor Pressure	≤1085 psig	X(10)	X	X	A
2	High Drywell Pressure	≤2.5 psig	X(8)	X(8)	X	A
2	Reactor Low Water Level	≥9 In. Indicated Level	X	X	X	A
2	High Water Level in Scram Discharge Tank	≤39 Gallons	X(2)	X	X	A
2	Turbine Condenser Low Vacuum	≥23 In. Hg Vacuum	X(3)	X(3)	X	A or C
2	Main Steam Line High Radiation	≤7X Normal Full Power Background (18)	X	X	X(18)	A or C
4	Main Steam Line Isolation Valve Closure	≤10% Valve Closure	X(3)(6)	X(3)(6)	X(6)	A or C
2	Turb. Cont. Valve Fast Closure	≥150 psig Control Oil Pressure at Acceleration Relay	X(4)	X(4)	X(4)	A or D
4	Turbine Stop Valve Closure	≤10% Valve Closure	X(4)	X(4)	X(4)	A or D

*APRM high flux scram setpoint ≤(.58W + 62%) $\left[\frac{FRP}{MFLPD}\right]$ Two recirc. pump operation

NOTES FOR TABLE 3.1.1 (CONT'D)

10. Not required to be operable when the reactor pressure vessel head is not bolted to the vessel.

11. Deleted

12. Deleted

13. An APRM will be considered inoperable if there are less than 2 LPRM inputs per level or there is less than 50% of the normal complement of LPRM's to an APRM.

14. W is percent of drive flow required to produce a rated core flow of 69 Mlb/hr. Trip level setting in percent of design power (1998 MWt).

15. See Section 2.1.A.1.

16. The APRM (15%) high flux scram is bypassed when in the run mode.

17. The APRM flow biased high flux scram is bypassed when in the refuel or startup/hot standby modes.

18. Within 24 hours prior to the planned start of hydrogen injection test with the reactor power at greater than 20% rated power, the normal full power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

TABLE 4.1.1

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION FUNCTIONAL TESTS

MINIMUM FUNCTIONAL TEST FREQUENCIES FOR SAFETY INSTR. AND CONTROL CIRCUITS

	Group (2)	Functional Test	Minimum Frequency (3)
Mode Switch in Shutdown	A	Place Mode Switch in Shutdown	Each Refueling Outage
Manual Scram	A	Trip Channel and Alarm	Every 3 Months
RPS Channel Test Switch (5)	A	Trip Channel and Alarm	Each Refueling Outage
IRM			
High Flux	C	Trip Channel and Alarm (4)	Once Per Week During Refueling and Before Each Startup
Inoperative	C	Trip Channel and Alarm	Once Per Week During Refueling and Before Each Startup
APRM			
High Flux	B	Trip Output Relays (4)	Once/Week (7)
Inoperative	B	Trip Output Relays (4)	Once/Week
Flow Bias	B	Calibrate Flow Bias Signal	Once/Month (1)
High Flux (15%)	B	Trip Output Relays (4)	Once Per Week During Refueling and Before Each Startup
High Reactor Pressure	D	Trip Channel and Alarm (4)	(1)
High Drywell Pressure	D	Trip Channel and Alarm (4)	(1)
Reactor Low Water Level (6)	D	Trip Channel and Alarm (4)	(1)
High Water Level in Scram Discharge Tanks	D	Trip Channel and Alarm (4)	Every 3 Months
Turbine Condenser Low Vacuum	D	Trip Channel and Alarm (4)	(1)
Main Steam Line High Radiation	B	Trip Channel and Alarm (4)	Once/Week
Main Steam Line Isolation Valve Closure	A	Trip Channel and Alarm	(1)
Turbine Control Valve Fast Closure	A	Trip Channel and Alarm	(1)
Turbine First Stage Pressure Permissive	D	Trip Channel and Alarm (4)	Every 3 Months
Turbine Stop Valve Closure	A	Trip Channel and Alarm	(1)
Reactor Pressure Permissive	D	Trip Channel and Alarm (4)	Every 3 Months

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 117
TO FACILITY OPERATING LICENSE NO. DPR-35
BOSTON EDISON COMPANY
PILGRIM NUCLEAR POWER STATION
DOCKET NO. 50-293

1.0 INTRODUCTION

By letter dated January 25, 1988, Boston Edison Co (BECo), the licensee, proposed to amend operating license DPR-35 for the Pilgrim Nuclear Power Station. The amendment would revise the Technical Specifications to remove misleading references to an average power range monitor (APRM) downscale scram function.

2.0 EVALUATION

Specifically the licensee proposed the deletion of 3 APRM downscale scram function requirements as follows:

1. Revise (TS) Table 3.1.1, Reactor Protection System (Scram) Instrumentation Requirement, to delete the requirement for an APRM downscale scram.

2. Delete Footnotes 11 and 12 of Technical Specification Table 3.1.1 to remove references to an APRM downscale trip.

3. Delete functional testing requirement for an APRM downscale scram from TS Table 4.1.1.

Technical Specification section 3.1.1 alludes to an APRM scram function by including, in Table 3.1.1, a downscale trip setting and by requiring an APRM downscale scram in TS Table 4.1.1. The APRM downscale contact only acts to bypass the intermediate range monitor (IRM) scram trips when the reactor is in the run mode and the APRMs are not downscale. Once the IRM detectors are removed from the core in the run mode, the IRM Hi Hi and IRM Inop contacts remain closed. If an APRM downscale condition then occurs, no scram trip would result. Thus the APRM downscale contact only acts to provide a bypass of the IRM scram trips in the run mode when the APRMs are not downscale. Footnote 5 of TS Table 3.1.1 states:

"IRM's are bypassed when APRM's are onscale and the reactor mode switch is in the run position."

Therefore the APRM downscale contacts only provide a bypass function and not a scram function. In addition, TS Table 4.1.1 currently requires that the APRM downscale feature of the RPS be functionally tested to a half-scram condition on a weekly basis when in the run mode. The removal of the Technical Specification requirement for weekly testing of the APRM downscale contact to a half-scram is justified because this contact provides no RPS safety function considered in the PNPS safety analysis. Therefore, the proposed changes will not involve a significant increase in the probability or consequences of any accident previously evaluated as stated in the Federal Register (53 FR 13012) on April 20, 1988.

3.0 SUMMARY

Based on the above discussion, the revisions will not impact the configuration of any plant safety system, operating procedures or the original safety analysis, and provides no RPS safety function considered in the PNPS safety analysis. In addition, these deletions can improve the clarity of the TS by deleting misleading statements and can reduce the potential for spurious trips by deleting the functional test to a half-scram condition on a weekly basis. Therefore we find the proposed deletions acceptable.

4.0 ENVIRONMENTAL CONSIDERATIONS

This amendment involves a change in requirements with respect to installation or use of a facilty 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 issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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 this amendment.

5.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: G. Requa

Dated: May 23, 1988