DCD-016

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Docket No. 50-293

AUG 5 - 1982

Mr. A. Victor Morisi, Manager
Nuclear Operations Support Department
Boston Edison Company
25 Braintree Hill Park
Rockdale Street
Braintree, MA 02184

Dear Mr. Morisi:

The Commission has issued the enclosed Amendment No. 62 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 March 19, 1982.

These changes to the Technical Specifications pertain to:
1) Clarification of the present limiting conditions for operation concerning the alternate rod insertion system
2) Changes to the tables of hydraulic and mechanical snubbers
3) Clarification of testing requirements associated with the core spray and low pressure coolant injection subsystems and
4) Clarification of testing requirements related to starting and loading of the diesel generators from the alternate shutdown station.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

ORIGINAL SIGNED BY

Kenneth T. Eccleston, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 62 to DPR-35
2. Safety Evaluation
3. Notice

cc w/enclosures
See next page

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NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY USGPO: 1981—335-960

Mr. A. Victor Morisi
Boston Edison Company

cc:

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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. 62
License No. DPR-35

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Boston Edison Company (the licensee) dated March 19, 1982 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:

   B. Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 62 , 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 its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Vernon L. Rooney, Acting Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 5, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 62

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 page is identified by Amendment Number and contains a vertical line indicating the area of change.

Remove	Replace
44a	44a
59a	59a
103	103
104	104
137g	137g
137h	137h
137i	137i
194	194

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
G. Recirculation Pump Trip/Alternate Rod Insertion Initiation This system is only required when the reactor mode switch is in the RUN mode. The recirculation pump trip system causes a pump trip and the alternate rod insertion system provides for initiating control rod insertion on a signal of high reactor pressure or low-low reactor water level when the mode select switch is in the RUN mode. The limiting conditions for operation for the instrumentation are listed in Table 3.2-G.	G. Recirculation Pump Trip/ Alternate Rod-Insertion Surveillance for instrumentation which initiates Recirculation Pump Trip and Alternate Rod Insertion shall be specified in Table 4.2-G.

TABLE 3.2-G

INSTRUMENTATION THAT INITIATES RECIRCULATION PUMP TRIP
AND
ALTERNATE ROD INSERTION

Minimum Number of Operable or Tripped Instrument Channels Per Trip System (1)	Trip Function	Trip Level Setting
2	High Reactor Dome Pressure	1175 ± 15 PSIG
2	Low-Low Reactor Water Level	≥ 78.5" above the top of the active fuel

Actions (1) There shall be two (2) operable trip systems for each function.

(a) If the minimum number of operable or tripped instrument channels for one (1) trip system cannot be met, restore the trip system to operable status within 14 days or be in at least hot shutdown within 24 hours.

(b) If the minimum operability conditions (1.a) cannot be met for both (2) trip systems, be in at least hot shutdown within 24 hours.

LIMITING CONDITIONS FOR OPERATION

3.5 CORE AND CONTAINMENT COOLING SYSTEMS

Applicability

Applies to the operational status of the core and suppression pool cooling subsystems.

Objective

To assure the operability of the core and suppression pool cooling subsystems under all conditions for which this cooling capability is an essential response to station abnormalities.

Specification

A. Core Spray and LPCI Subsystems

1. Both core spray subsystems shall be operable whenever irradiated fuel is in the vessel and prior to reactor startup from a Cold Condition, except as specified in 3.5.A.2 below.

SURVEILLANCE REQUIREMENT

4.5 CORE AND CONTAINMENT COOLING SYSTEMS

Applicability

Applies to the Surveillance Requirements of the core and suppression pool cooling subsystems which are required when the corresponding Limiting Condition for operation is in effect.

Objective

To verify the operability of the core and suppression pool cooling subsystems under all conditions for which this cooling capability is an essential response to station abnormalities.

Specification

A. Core Spray and LPCI Subsystem

1. Core Spray Subsystem Testing.

	Item	Frequency
a.	Simulated Automatic Actuation test.	Once/Operating Cycle
b.	Pump Operability	Once/month
c.	Motor Operated Valve Operability	Once/month and Once/cycle from the Alternate Shutdown Panel
d.	Pump flow rate Each pump shall deliver at least 3600 gpm against a system head corresponding to a reactor vessel pressure of 104 psig.	
e.	Core Spray Header Δp Instrumentation	

Amendment No. 42, 62

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE EQUIPMENT
3.5.A Core Spray and LPCI Subsystems (cont'd)	4.5.A Core Spray and LPCI Subsystems (cont'd)
2. From and after the date that one of the core spray subsystems is made or found to be inoperable for any reason, continued reactor operation is permissible during the succeeding seven days, provided that during such seven days all active components of the other core spray subsystem and active components of the LPCI subsystem and the diesel generators are operable.	Check — Once/day Calibrate — Once/3 months Test — Once/3 months 2. When it is determined that one core spray subsystem is inoperable, the operable core spray subsystem, the LPCI subsystem and the diesel generators shall be demonstrated to be operable immediately. The operable core spray subsystem shall be demonstrated to be operable daily thereafter.
3. The LPCI Subsystems shall be operable whenever irradiated fuel is in the reactor vessel, and prior to reactor startup from a Cold Condition, except as specified in 3.5.A.4, 3.5.A.5 and 3.5.F.5.	3. LPCI Subsystem Testing shall be as follows: a. Simulated Automatic Actuation Test — Once/Operating Cycle b. Pump Operability — Once/month c. Motor Operated valve operability — Once/Month and Once/cycle from the Alternate Shutdown Panel d. Pump Flow — Once/3 months Three LPCI pumps shall deliver 14,400 gpm against a system head corresponding to a vessel pressure of 20 psig

Amendment No. 42, 62

Table 3.6.I(a)

SAFETY RELATED HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
SS-6-10-1	Feedwater System	42'			X (Drywell)	
SS-6-10-2	Feedwater System	42'			X (Drywell)	
SS-6-10-3	Feedwater System	42'			X (Drywell)	
SS-6-10-4	Feedwater System	42'			X (Drywell)	
SS-6-10-5	Feedwater System	42'			X (Drywell)	
SS-13-3-1	RCIC	38'			X (Drywell)	
SS-13-3-2	RCIC	38'			X (Drywell)	
SS-14-3-1	Core Spray	65'			X (Drywell)	
SS-14-3-2	Core Spray	65'			X (Drywell)	
SS-14-3-3	Core Spray	65'			X (Drywell)	
SS-14-3-4	Core Spray	65'			X (Drywell)	
SS-23-10-1	H.P.C.I.	42'			X (Drywell)	
SS-23-10-2	H.P.C.I.	42'			X (Drywell)	
SS-23-3-30	H.P.C.I.	-3'09"				X H.P.C.I. Quadrant
SS-23-20-31	H.P.C.I.	-3'09"				X H.P.C.I. Quadrant
SS-23-10-32	H.P.C.I.	-3'09"				X H.P.C.I. Quadrant
SS-23-10-34	H.P.C.I.	-6'				X H.P.C.I. Quadrant
SS-23-10-35	H.P.C.I.	-6'				X H.P.C.I. Quadrant
SS-23-20-36	H.P.C.I.	-3'09"				X H.P.C.I. Quadrant
SS-23-20-37	H.P.C.I.	-3'09"				X H.P.C.I. Quadrant
SS-10-3-43	RHR	-3'06"				X RHR Pump Room
SS-10-20-44	RHR	-3'06"				X RHR Pump Room
SS-30-3-45	RBCCW	83'5"				X Reactor Building
SS-10-10-46	RHR	6"				X Torus Compartment
SS-23-10-38	HPCI	-3'09"				X HPCI Quadrant
SS-23-10-39	HPCI	-3'09"				X HPCI Quadrant

Modifications to this Table due to changes in high radiation areas should be submitted to the NRC as part of the next license amendment.

Table 3.6.1(b)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
SS-1-10-13	M.S. Relief Line A				X (Drywell)	
SS-1-10-14	M.S. Relief Line A				X (Drywell)	
SS-1-10-15	M.S. Relief Line A				X (Drywell)	
SS-1-10-16	M.S. Relief Line A				X (Drywell)	
SS-1-10-17	M.S. Relief Line A				X (Drywell)	
SS-1-10-18	M.S. Relief Line A				X (Drywell)	
SS-1-10-19	M.S. Relief Line A				X (Drywell)	
SS-1-10-20	M.S. Relief Line A				X (Drywell)	
SS-1-10-21	M.S. Relief Line B				X (Drywell)	
SS-1-10-22	M.S. Relief Line B				X (Drywell)	
SS-1-10-23	M.S. Relief Line B				X (Drywell)	
SS-1-10-24	M.S. Relief Line B				X (Drywell)	
SS-1-10-25	M.S. Relief Line B				X (Drywell)	
SS-1-10-26	M.S. Relief Line B				X (Drywell)	
SS-1-10-27	M.S. Relief Line B				X (Drywell)	
SS-1-10-28	M.S. Relief Line B				X (Drywell)	
SS-1-10-29	M.S. Relief Line C				X (Drywell)	
SS-1-10-30	M.S. Relief Line C				X (Drywell)	
SS-1-10-31	M.S. Relief Line C				X (Drywell)	
SS-1-10-32	M.S. Relief Line C				X (Drywell)	
SS-1-10-33	M.S. Relief Line C				X (Drywell)	
SS-1-10-34	M.S. Relief Line C				X (Drywell)	
SS-1-10-35	M.S. Relief Line C				X (Drywell)	
SS-1-10-36	M.S. Relief Line C				X (Drywell)	
SS-1-10-37	M.S. Relief Line C				X (Drywell)	

Table 3.6.1(b)

SAFETY RELATED MECHANICAL SHOCK SUPPRESSORS (SNUBBERS)

Snubber No.	Location	Elevation	Snubber in High Radiation Area During Shutdown	Snubbers Especially Difficult to Remove	Snubbers Inaccessible During Normal Operation	Snubbers Accessible During Normal Operation
SS-1-10-38	M.S. Relief Line D				X (Drywell)	
SS-1-10-39	M.S. Relief Line D				X (Drywell)	
SS-1-10-40	M.S. Relief Line D				X (Drywell)	
SS-1-10-41	M.S. Relief Line D				X (Drywell)	
SS-1-10-42	M.S. Relief Line D				X (Drywell)	
SS-1-10-43	M.S. Relief Line D				X (Drywell)	
SS-1-10-44	M.S. Relief Line D				X (Drywell)	
SS-1-10-45	M.S. Relief Line D				X (Drywell)	
SS-1-10-46	M.S. Relief Line D				X (Drywell)	

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.9 AUXILIARY ELECTRICAL SYSTEM	4.9 AUXILIARY ELECTRICAL SYSTEM
Applicability:	Applicability:
Applies to the auxiliary electrical power system.	Applies to the periodic testing requirements of the auxiliary electrical systems.
Objective:	Objective:
To assure an adequate supply of electrical power for operation of those systems required for safety.	Verify the operability of the auxiliary electrical system.
Specification:	Specification:
A. Auxiliary Electrical Equipment	A. Auxiliary Electrical Equipment Surveillance
The reactor shall not be made critical unless all of the following conditions are satisfied:	1. Diesel Generators
1 At least one offsite transmission line and the startup transformer are available and capable of automatically supplying auxiliary power to the emergency buses.	a. Each diesel generator shall be manually started and loaded once each month to demonstrate operational readiness. The test shall continue for at least a one hour period at rated load. During the monthly generator test the diesel generator starting air compressor shall be checked for operation and its ability to recharge air receivers. The operation of the diesel fuel oil transfer pumps shall be demonstrated, and the diesel starting time to reach rated voltage and frequency shall be logged.
2. An additional source of offsite power consisting of one of the following:	Once per operating cycle the diesel generator control circuits shall be isolated from the cable spreading room and the diesel generator started and loaded.
a. A transmission line and shutdown transformer capable of supplying power to the emergency 4160 volt buses.	
b. The main transformer and unit auxiliary transformer available and capable of supplying power to the emergency 4160 volt buses.	
3. Both diesel generators shall be operable. Each diesel generator shall have a minimum of 19,800 gallons of diesel fuel on site.	b. Once per operating cycle the condition under which the diesel generator is required will be simulated and a test conducted to demonstrate that it will start and accept the emergency load within the specified time sequence. The results shall be logged.

Amendment No. 42, 62

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 62 TO FACILITY LICENSE NO. DPR-35

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293

Author: Kenneth T. Eccleston

1.0 Introduction

By letter dated March 19, 1982, Boston Edison Company (the licensee) requested changes to the Pilgrim Nuclear Power Station Technical Specifications (TS) to: 1) clarify present limiting conditions for operation (LCOs) concerning the alternate rod insertion (ARI) system, 2) revise the tables of hydraulic and mechanical snubbers, 3) clarify testing requirements associated with the core spray and low pressure coolant injection systems, and 4) clarify testing requirements related to starting and loading of the diesel generators from the alternate shutdown station.

2.0 Evaluation

2.1 Limiting conditions for operation concerning the alternate rod insertion system

The licensee proposed modifying the limiting conditions for operation for the ARI system to clarify that this system need only be operable when the reactor is in the run mode. The Anticipated Transient Without Scram (ATWS) recirculation pump trip (RPT) system is provided as a means of substantially reducing maximum reactor vessel pressure in the unlikely event of a failure to scram, and the ARI system provides a diverse means for initiation of control rod insertion. The ARI system acts as a backup to the electrical portion of the current scram system, and thus serves to increase the scram reliability, thereby reducing the probability of an ATWS event.

We have reviewed the licensee's proposed TS changes for ATWS RPT/ARI and find the capacity of the safety/relief valves installed at Pilgrim is far in excess of the steam generation rate achievable in any mode other than RUN, and therefore, no potential exists for vessel overpressurization in modes other than run. In addition, the reactor is operated for only relatively short periods of time in the STARTUP mode and sufficient time is available at the power levels achievable in the STARTUP mode to take alternative action in case of an ATWS event (such as initiation of the standby liquid control systems) to shut down the reactor before excessive suppression pool temperature rise occurs. Consequently, we find the licensee's proposed TS changes acceptable.

2.2 Revisions to tables of hydraulic and mechanical snubbers

The changes proposed by the licensee to the tables of snubbers reflect upgrading of three existing hydraulic snubbers, the addition of two new hydraulic snubbers, and the changing of mechanical snubber designations to make them consistent with the designations provided in the table of hydraulic snubbers.

We have reviewed the Technical Specification changes proposed by the licensee and find them acceptable since they a) correct the list of snubbers to which the Technical Specifications apply and b) improve the quality of the Pilgrim TSs by providing for consistent snubber designations between the lists of hydraulic and mechanical snubbers.

2.3 Clarification of testing requirements associated with the core spray (CS) and low pressure coolant injection (LPCI) systems.

The licensee has proposed TS changes to eliminate the once per cycle operability testing of the core spray and low pressure coolant injection system pumps required to be performed from the alternate shutdown panel. This proposed change would reflect the fact that direct operation of the CS and LPCI pumps is not associated with any alternate shutdown panels. Spurious control signal isolation for the CS and RHR pumps in case of fire in the cable spreading room is accomplished at the 4160 V breaker for the RHR or CS pumps and not at an alternate shutdown panel as implied in the TS. Other required surveillance of these pumps and their corresponding systems would not be affected by the proposed TS changes.

We have reviewed these proposed TS changes and find that they would correct errors in the TS regarding surveillance of the CS and LPCI pumps to reflect the surveillance of these pumps which can be performed. Consequently, we find them acceptable.

2.4 Clarification of testing requirements related to starting and loading of the diesel generators from the alternate shutdown station.

The licensee has proposed changes to the Pilgrim TS to change the surveillance requirement for manually starting and loading the diesel generators from the alternate shutdown station once per cycle, to one which more accurately reflects the surveillance which can be performed. The licensee proposes to change the requirements of the existing TS to require that the diesel generator control circuits shall be isolated from the cable spreading room and the diesel generator started and loaded locally.

This change is requested because the diesel generator cannot be manually started and loaded from the alternate shutdown station as the existing TS imply. The requested change in this surveillance requirement would correct this error and modify the Technical Specifications to require the necessary surveillance of the as-installed systems. Consequently, we find this change acceptable.

3.0 Environmental Considerations

We have determined that the amendment does not involve a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR Section 51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

4.0 Conclusions

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not involve a significant decrease in a safety margin and does not create the possibility of an accident of a type different from any previously evaluated, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 5, 1982

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-293

BOSTON EDISON COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY

OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 62 to Facility Operating License No. DPR-35 issued to Boston Edison Company (the licensee) which revised the Technical Specifications for operation of the Pilgrim Nuclear Power Station (the facility) located near Plymouth, Massachusetts. The amendment is effective as of its date of issuance.

The amendment revises the Technical Specifications to 1) clarify limiting conditions for operation concerning the alternate rod insertion system 2) change the tables of mechanical and hydraulic snubbers 3) clarify testing requirements associated with the core spray and low pressure coolant injection systems and 4) clarify testing requirements related to starting and loading of the diesel generators from the alternate shutdown station.

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 was not required since it does not involve a significant hazards consideration.

The Commission has determined that the issuance of the amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement or negative declaration and

environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

For further details with respect to this action, see (1) the application for amendment dated March 19, 1982, (2) Amendment No. 62 to License No. DPR-35, and (3) the Commission's related Safety Evaluation. All of these items are 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 on North Street in Plymouth, Massachusetts 02360. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 5th day of August 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

Vernon L. Rooney, Acting Chief
Operating Reactors Branch #2
Division of Licensing