



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

BOSTON EDISON COMPANY

DOCKET NO. 50-293

PILGRIM NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 45
License No. DPR-35

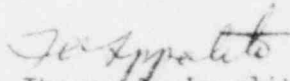
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Boston Edison Company (the licensee) dated September 1, 1980, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 45, 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



Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 10, 1980

TABLE OF CONTENTS

			<u>Page No.</u>
1.0	DEFINITIONS		1
	<u>SAFETY LIMITS</u>	<u>LIMITING SAFETY SYSTEM SETTINGS</u>	
1.1	FUEL CLADDING INTEGRITY	2.1	6
1.2	REACTOR COOLANT SYSTEM INTEGRITY	2.2	22
	<u>LIMITING CONDITIONS FOR OPERATION</u>	<u>SURVEILLANCE REQUIREMENT</u>	
3.1	REACTOR PROTECTION SYSTEM	4.1	26
3.2	PROTECTIVE INSTRUMENTATION	4.2	42
3.3	REACTIVITY CONTROL	4.3	80
	A. Reactivity Limitations	A	80
	B. Control Rods	B	81
	C. Scram Insertion Times	C	83
	D. Control Rod Accumulators	D	86
	E. Reactivity Anomalies	E	86
	F. Alternate Requirements		86
3.4	STANDBY LIQUID CONTROL SYSTEM	4.4	95
	A. Normal System Availability	A	95
	B. Operation with Inoperable Components	B	96
	C. Sodium Pentaborate Solution	C	97
	D. Alternate Requirements		97
3.5	CORE AND CONTAINMENT COOLING SYSTEMS	4.5	103
	A. Core Spray and LPCI Subsystems	A	103
	B. Containment Cooling Subsystem	B	106
	C. HPCI Subsystem	C	107
	D. RCIC Subsystem	D	108
	E. Automatic Depressurization System	E	109
	F. Minimum Low Pressure Cooling System and Diesel Generator Availability	F	110
	G. (Deleted)	G	111
	H. Maintenance of Filled Discharge Pipe	H	112
3.6	PRIMARY SYSTEM BOUNDARY	4.6	123
	A. Thermal and Pressurization Limitations	A	123
	B. Coolant Chemistry	B	124
	C. Coolant Leakage	C	125
	D. Safety and Relief Valves	D	126
	E. Jet Pumps	E	127
	F. Jet Pump Flow Mismatch	F	127
	G. Structural Integrity	G	127
	H. High Energy Piping (Outside Containment)	H	127B
	I. Shock Suppressors (Snubbers)	I	137a

	<u>Surveillance</u>	<u>Page No.</u>
3.7	CONTAINMENT SYSTEMS	152
	A. Primary Containment	152
	B. Standby Gas Treatment System	158
	C. Secondary Containment	159
	D. Primary Containment Isolation Valves	160
3.8	RADIOACTIVE MATERIALS	177
	A. Liquid Effluents	177
	B. Airborne Effluents	179
	C. (Deleted)	
	D. Environmental Monitoring Program	182
	E. Mechanical Vacuum Pump	184
3.9	AUXILIARY ELECTRICAL SYSTEMS	194
	A. Auxiliary Electrical Equipment	194
	B. Operation with Inoperable Equipment	195
3.10	CORE ALTERATIONS	202
	A. Refueling Interlocks	202
	B. Core Monitoring	202
	C. Spent Fuel Pool Water Level	203
3.11	REACTOR FUEL ASSEMBLY	205A
	A. Average Planar Linear Heat Generation Rate (APLHGR)	205A
	B. Linear Heat Generation Rate (LHGR)	205A-1
	C. Minimum Critical Power Ratio (MCPR)	205B
3.12	FIRE PROTECTION	206
	A. Fire Detection Instrumentation	206
	B. Fire Suppression Water System	206
	C. Spray and/or Sprinkler Systems	206c
	D. CO ₂ System	206d
	E. Fire Hose Stations	206e
	F. Penetration Fire Barrier	206e
	G. Dry Chemical Systems	206e-1
	H. Yard Hydrants and Exterior Hose Houses	206e-1
4.0	MISCELLANEOUS RADIOACTIVE MATERIALS SOURCES	206k
	4.1 Sealed Source Contamination	206k
	4.2 Surveillance Requirements	206k
	4.3 Reports	2061
	4.4 Records Retention	2061

	<u>Page No.</u>
5.0 MAJOR DESIGN FEATURES	206m
5.1 Site Features	206m
5.2 Reactor	206m
5.3 Reactor Vessel	206m
5.4 Containment	206m
5.5 Fuel Storage	207
5.6 Seismic Design	207
6.0 ADMINISTRATIVE CONTROLS	208
6.1 Responsibility	208
6.2 Organization	208
6.3 Facility Staff Qualifications	208
6.4 Training	208a
6.5 Review and Audit	212
6.6 Reportable Occurrence Action	216
6.7 Safety Limit Violation	216
6.8 Procedures	216
6.9 Reporting Requirements	217
6.10 Record Retention	224
6.11 Radiation Protection Program	226
6.12 (Deleted)	
6.13 High Radiation Area	226
6.14 Fire Protection Program	227
6.15 Environmental Qualification	228

5. Records of gaseous and liquid radioactive material released to the environs.
6. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
7. Records of training and qualification for current members of the plant staff.
8. Records of in-service inspections performed pursuant to these Technical Specifications.
9. Records of Quality Assurance activities required by the QA Manual.
10. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
11. Records of meetings of the ORC and the NSRAC.
12. Records for Environmental Qualification which are covered under the provisions of paragraph 6.15.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 (Deleted)

6.13 HIGH RADIATION AREA (OPTIONAL)

6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a present integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the unit Health Physicist in the Radiation Work Permit.

 *Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the RWP issuance requirement during the performance of this assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

6.13.2 The requirements of 6.13.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Foreman on duty and/or the unit Health Physicist.

6.14 FIRE PROTECTION PROGRAM

The following inspections and audits shall be performed:

1. An independent fire protection inspection and audit shall be performed annually utilizing either qualified off-site licensee personnel or an outside fire protection firm.
2. An inspection and audit by an outside qualified fire consultant shall be performed at intervals no greater than 3 years.