



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

BOSTON EDISON COMPANY

DOCKET NO. 50-293

PILGRIM NUCLEAR POWER STATION UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 35
License No. DPR-35

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The submittals by Boston Edison Company (the licensee) dated March 6, May 4, July 10, and September 22, 1978, comply 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.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by changing paragraph 3.B and adding paragraph 3.F to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 35, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3.F Fire Protection

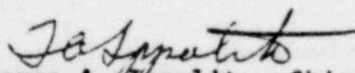
The licensee may proceed with and is required to complete the modifications identified in Paragraphs 3.1.1 through 3.1.19 of the NRC's Fire Protection Safety Evaluation (SE), dated December 21, 1978 for the facility. These modifications will be completed in accordance with the schedule in Table 3.1.

In addition, the licensee shall submit the additional information identified in Table 3.2 of this SE in accordance with the schedule contained therein. In the event these dates for submittal cannot be met, the licensee shall submit a report, explaining the circumstances, together with a revised schedule.

The licensee is required to implement the administrative controls identified in Section 6 of the SE. The administrative controls shall be in effect by December 31, 1978.

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 #3
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 21, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 35

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 area of change.

PAGES

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206a

206c

206d

206e

Add page 206e-1

206f

206h

3.12 FIRE PROTECTIONA. Fire Detection Instrumentation

The fire detection instrumentation for each fire detection zone shown in Table 3.12-1 shall be OPERABLE.

APPLICABILITY:

At all times when equipment in that fire detection zone is required to be OPERABLE.

ACTION:

With the number of OPERABLE fire detection instruments less than required by Table 3.12.1;

- a. Within 1 hour, establish a fire watch patrol to inspect the zone with the inoperable instrument(s) at least once per hour; and
- b. Restore the inoperable instrument(s) to OPERABLE status within 14 days, or prepare and submit a report to the Commission within the next 30 days outlining the action taken, the cause of the malfunction and the plans for restoring the instrument(s) to OPERABLE status.

B. Fire Suppression Water System

The FIRE SUPPRESSION WATER SYSTEM shall be OPERABLE with:

1. Two (2) fire system pumps with their discharge aligned to the fire suppression header.
2. Separate water supplies containing a minimum of 240,000 gallons each.
3. An OPERABLE flow path capable of taking suction from Tank 107A and Tank 107B and transferring the water through distribution

4.12 FIRE PROTECTIONA. Fire Detection Instrumentation

1. Each of the fire detection instruments noted in Table 3.12-1 including the NFPA Code 72A supervised circuitry shall be demonstrated OPERABLE by a functional test at least once per 6 months.
2. The fire detection instrumentation supervised circuitry associated with detector alarms, shall be demonstrated OPERABLE at least once per 2 months.

B. Fire Suppression Water System

1. The FIRE SUPPRESSION WATER SYSTEM shall be demonstrated OPERABLE:

- a. at least once per 7 days by verifying the water supply volume.
- b. at least once per month
 - 1) on a staggered test basis by starting each pump and operating it for 20 minutes on recirculation flow.

pipng with OPERABLE section-
alizing control or isolation
valves to the hydrant post
indicator valves and the
front valve ahead of the
water flow alarm device on
each sprinkler, hose stand-
pipe or spray system riser.

4. Automatic initiation logic
for each fire pump.

APPLICABILITY: At all times.

ACTION:

- a. With less than the above re-
quired equipment, restore the
inoperable equipment to
OPERABLE status within 7 days
or prepare and submit a
report to the Commission
within the next 30 days
outlining the plans and pro-
cedures to be used to provide
for the loss of redundancy in
this system.
- b. With no FIRE SUPPRESSION WATER
SYSTEM OPERABLE, within 24 hrs.
 1. Establish the backup Fire
Suppression Water System.
 2. If the requirement of b.1
above cannot be met, an
orderly shutdown of the
reactor shall be initi-
ated and the reactor
shall be in the cold
shutdown condition with-
in 24 hours.
 3. Notify the Commission
and prepare and submit
a report to the
Commission within the
next 14 days outlin-
ing the cause of the mal-
functions, the action
taken, and the plans
for restoring the
system to OPERABLE
status.

- 2) by verifying that each
valve (manual, power
operated or automated)
in the flow path is in
its correct position.
- c. at least once per year by
cycling each testable valve
in the flow path through
at least one complete
cycle of full travel.
- d. at least once per operating
cycle
 - 1) by performing a system
functional test which
includes simulated
automatic actuation of
the system throughout its
operating sequence and
verifying that the fire
pump diesel engine starts
from ambient conditions
on the auto-start signal
and operates for at
least 20 minutes while
loaded with the fire
pump.
 - 2) by verifying that each
pump starts and delivers
at least 2000 gpm while
maintaining a system
pressure of at least
125 psig.
 - 3) by verifying that each
automatic (deluge) valve
in the flow patch actuates
to its correct position.
 - 4) by cycling each valve in
the flow path that is not
testable during plant
operation through at
least one complete cycle
of full travel.

C. Spray and/or Sprinkler Systems

The spray and/or sprinkler systems located in the following areas shall be OPERABLE:

1. Diesel Generator Day Tanks
2. Diesel Fire Pump Day Tank
3. Auxiliary Boiler Room
4. Recirc. Pump MG Set Room
5. Standby Gas Treatment System
6. Hydrogen Supply Oil Unit
7. Turbine Basement Addition

APPLICABILITY:

At all times when equipment in the spray/sprinkler protected area is required to be OPERABLE.

- 2) at least once per 3 months by verifying that the specific gravity is appropriate for continued service of the battery.
- 3) at least once per operating cycle by verifying that the batteries, all plates, and battery racks show no visual indication of physical damage or abnormal deterioration and the battery-to-battery and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material.

C. Spray and/or Sprinkler Systems

The spray and/or sprinkler systems shall be demonstrated to be OPERABLE:

1. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
2. At least once per cycle:
 - a. By performing a system functional test which includes simulated automatic actuation of the system and verifying that the automatic (deluge) valves in the flow path actuate to their correct positions.
 - b. By inspection of spray headers to verify their integrity.
 - c. By inspection of each nozzle to verify no blockage.
 - d. By cycling each valve in the flow path that is not testable during plant operations through at least one complete cycle.
3. At least once per 3 years by performing a flow test through each

ACTIONS:

- a. With a spray and/or sprinkler system inoperable, establish a continuous fire patrol with backup fire suppression equipment for the unprotected area(s) within 1 hour.
- b. Restore the system to OPERABLE status within 14 days or prepare and submit a report to the Commission within the next 30 days outlining the action taken, the cause of inoperability and the plans for restoring the system to OPERABLE status.

D. CO₂ SYSTEM

The following CO₂ systems shall be OPERABLE with a minimum level of 60% and a minimum pressure of 275 psig in the associated storage tank(s).

1. Cable Spreading room
2. 37' elevation switchgear room
3. 23' elevation switchgear room

APPLICABILITY:

At all times when the equipment in the area is required to be OPERABLE.

ACTION:

- a. With a CO₂ system inoperable, establish a continuous fire patrol with backup fire suppression equipment for the unprotected area(s) within 1 hour.
- b. Restore the system to OPERABLE status within 14 days or prepare and submit a report to the Commission within the next 30 days outlining the action taken, the cause of inoperability and the plans for restoring the system to OPERABLE status.

open head spray/sprinkler header and verifying each open head spray/sprinkler nozzle is unobstructed.

D. CO₂ SYSTEM

The CO₂ System shall be demonstrated OPERABLE:

1. At least once per 7 days by verifying the CO₂ storage tank level and pressure.
2. At least once per cycle by verifying the system valves and associated ventilation dampers actuate automatically and manually to a simulated actuation signal. A brief flow test shall be made to verify flow from each nozzle. ("Puff Test").

E. Fire Hose Stations

The interior fire hose stations shown in Table 3.12-2 shall be OPERABLE.

APPLICABILITY:

At all times when the equipment in the area protected by the fire hose station is required to be operable.

ACTION:

With a hose station inoperable, route an additional equivalent capacity hose to the unprotected area from an OPERABLE hose station within 1 hour.

F. Penetration Fire Barrier

All fire barrier penetration fire seals protecting safety related areas shall be functional.

APPLICABILITY: At all times

ACTION:

With a penetration fire barrier not functional, a continuous fire patrol shall be established

E. Fire Hose Stations

Each interior fire hose station shall be verified to be OPERABLE:

1. at least once per month by visual inspection of the station to assure all equipment is available.
2. at least once per cycle by removing the hose for inspection, replacing degraded coupling gaskets, and re-racking.
3. at least once per 3 years by
 - a. partially opening each hose station valve to verify valve operability and no blockage.
 - b. by conducting a hydrostatic test of each hose
 - 1) at a pressure 50 psig greater than the maximum available pressure at that hose station, or
 - 2) annually at the applicable service test pressure as listed in Table 821 of the "Standard for Care, Maintenance and Use of Hose," NFPA No. 198-1972, or
 - c. by replacing each hose with a new or used hose which has been hydrostatically tested in accordance with the pressures specified in 4.12., E.3.b.

F. Fire Barrier Penetration Fire Seals

1. Penetration fire barriers shall be verified to be functional by a visual inspection at least once per operating cycle and subsequent to any installation, modification, or maintenance.

on at least one side of the affected penetration within 1 hour.

G. Dry Chemical Systems

The fixed dry chemical systems located in the following areas shall be OPERABLE:

1. Diesel Generator Room "A".
2. Diesel Generator Room "B".

APPLICABILITY:

At all times; when equipment in the protected area is required to be operable.

ACTION:

With a dry chemical system inoperable, establish a continuous fire patrol with backup fire suppression equipment for the unprotected areas within one hour; restore the system to OPERABLE status within 14 days or prepare and submit a Special Report to the Commission within the next 30 days outlining the action taken, the cause of the inoperability and the plans for restoring the system to OPERABLE status.

H. Yard Hydrants and Exterior Hose Houses

The yard hydrants and exterior hose houses shown in Table 3.12-2 shall be OPERABLE.

APPLICABILITY: At all times

ACTION:

With a yard hydrant inoperable, within one hour have a sufficient number of additional lengths of 2 1/2" diameter hose located in an adjacent OPERABLE hydrant's hose house to provide service to the area protected by the inoperable hydrant.

G. Dry Chemical Systems

Each dry chemical system shall be verified to be OPERABLE:

- A. At least once per 6 months by checking all stored dry chemical containers by pressure and weight against the required minimums.
- B. At least once per 18 months by:
 1. Verifying the system actuates manually and automatically, upon receipt of a simulated test signal, and
 2. Performance of a flow test through headers and nozzles to assure no blockage.

H. Yard Hydrants and Exterior Hose Houses

Each hydrant shall be verified OPERABLE:

1. At least once per month by a visual inspection of the hose house to assure all equipment is available.
2. At least twice per year (once in the fall and once in the spring) by inspecting each outdoor fire hydrant.
3. At least once per year by performing surveillance requirement E.3.b or c.

TABLE 3.12-1

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM INSTRUMENTS OPERABLE	
	HEAT	SMOKE
1. Cable Spreading	N/A	9
2. Computer Room	N/A	1
3. Switchgear Room		
Elevation 37'	N/A	9
Elevation 23'	N/A	11
4. Station Battery Rooms		
Elevation 37'	N/A	2
Elevation 23'	N/A	2
5. Diesel Generator		
A	1	1
B	1	1
6. Safety Related Pumps		
RCIC	N/A	1
HPCI	N/A	1
7. Recir. M. G. Sets		
A	N/A	3
B	N/A	3
8. A.O.G.	N/A	4

TABLE 3.12-2 (Cont.)FIRE HOSE STATIONSRetention BuildingSta. #

101	Retention Building, El. 23'
102	Retention Building, El. 6'

Radwaste AreaSta. #

18	Outside Radwaste Control Room, El. -1'
34	Monitor Tank Pump Area, El. -1'
35	Radwaste Area North Corner, El. -1'
45	Radwaste Stairway to Turbine Bldg., El. -1'

Warehouse #2

	North End Section -1
	Center Section
	North End Section -2

Yard Hose CabinetsSta. #

1	North Side of Screen House
2	N. E. Area at Machine Shop