



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. 136  
License No. DPR-35

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Boston Edison Company (the licensee) dated February 6, 1991, 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 set forth in 10 CFR Chapter I;
  - 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:

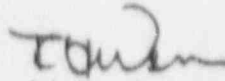
Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 136, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard Wessman, Director  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 22, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 136

FACILITY OPERATING LICENSE NO. DPR-35

DOCKET NO. 50-293

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

155  
155a  
160  
161-164  
168

Insert

155  
155a  
160  
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168

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.7.A Primary Containment (Con't)4.7.A Primary Containment (Con't)Primary Containment IntegrityPrimary Containment Integrity

2.a Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing "open vessel" physics test at power levels not to exceed 5 Mw(t).

2.a The primary containment integrity shall be demonstrated by performing Primary Containment Leak Tests in accordance with 10CFR50 Appendix J, with exemptions as approved by the NRC and exceptions as follows:

Primary containment integrity means that the drywell and pressure suppression chamber are intact and that all of the following conditions are satisfied:

- (1) All manual containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed.
- (2) At least one door in each airlock is closed and sealed.
- (3) All blind flanges and manways are closed.
- (4) All automatic primary containment isolation valves and all instrument line flow check valves are operable except as specified in 3.7.A.2.b.
- (5) All containment isolation check valves are operable or at least one containment isolation valve in each line having an inoperable valve is secured in the isolated position.

- (1) The main steam line isolation valves shall be tested at a pressure  $\geq 23$  psig, and normalized to a value equivalent to 45 psig each operating cycle.
- (2) Personnel air lock door seals shall be tested at a pressure  $\geq 10$  psig each operating cycle. Results shall be normalized to a value equivalent to 45 psig.

If the total leakage rates listed below are exceeded, repairs and retests shall be performed to correct the conditions.

- (1) All double-gasketed seals:  
 $10\% L_t (x)$
- (2) All testable penetrations and isolation valves:  
 $60\% L_a (x)$
- (3) Any one penetration or isolation valve except main steam line isolation valves:  
 $5\% L_t (x)$
- (4) Any one main steam line isolation valve:  
11.5 scf/hr @ 23 psig.

where  $x = 45$  psig  
 $L_t = .75 L_a$   
 $L_a = 1.0\%$  By weight of the contained air @ 45 psig for 24 hrs.

LIMITING CONDITIONS FOR OPERATIONSURVEILLANCE REQUIREMENTS3.7.A Primary Containment (Con't)4.7.A Primary Containment (Con't)Primary Containment Isolation ValvesPrimary Containment Isolation Valves

2.b. In the event any automatic Primary Containment Isolation Valve becomes inoperable, at least one containment isolation valve in each line having an inoperable valve shall be deactivated in the isolated condition. (This requirement may be satisfied by deactivating the inoperable valve in the isolated condition. Deactivation means to electrically or pneumatically disarm, or otherwise secure the valve.)\*

2.b.1 The primary containment isolation valves surveillance shall be performed as follows:

- a. At least once per operating cycle the operable primary containment isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
- b. At least once per quarter:
  1. All normally open power operated primary containment isolation valves (except for the main steam line power operated isolation valves) shall be fully closed and reopened.
  2. Trip the main steam isolation valves individually and verify closure time.
- c. At least twice per week the main steam line power operated isolation valves shall be exercised by partial closure and subsequent reopening.
- d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.

\*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under ORC approved administrative controls.

2.b.2 Whenever a primary containment automatic isolation valve, is inoperable, the position of the isolated valve in each line having an inoperable valve shall be recorded daily.

Pages 160 through 164 are deleted

## BASES:

### 3.7.A & 4.7.A Primary Containment

The primary containment leak rate test frequency is based on maintaining adequate assurance that the leak rate remains within the specification. The leak rate test frequency is in accordance with 10CFR50 App. J.

The penetration and air purge piping leakage test frequency, along with the containment leak rate tests, is adequate to allow detection of leakage trends. Whenever a bolted double-gasketed penetration is broken and remade, the space between the gaskets is pressurized to determine that the seals are performing properly. It is expected that the majority of the leakage from valves, penetrations and seals would be into the reactor building. However, it is possible that leakage into other parts of the facility could occur. Such leakage paths that may affect significantly the consequences of accidents are to be minimized. The personnel air lock is tested at 10 psig, because the inboard door is not designed to shut in the opposite direction.

### Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment and open to the free space of the containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the pressure suppression system. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.

Group 1 - process lines are isolated by reactor vessel low-low water level in order to allow for removal of decay heat subsequent to a scram, yet isolate in time for proper operation of the core standby cooling systems. The valves in group 1 are also closed when process instrumentation detects excessive main steam line flow, high radiation, low pressure, main steam space high temperature, or reactor vessel high water level.

Group 2 - isolation valves are closed by reactor vessel low water level or high drywell pressure. The group 2 isolation signal also "isolates" the reactor building and starts the standby gas treatment system. It is not desirable to actuate the group 2 isolation signal by a transient or spurious signal.

Group 3 - isolation valves can only be opened when the reactor is at low pressure and the core standby cooling systems are not required. Also, since the reactor vessel could potentially be drained through these process lines, these valves are closed by low water level.

Group 4 and 5 - process lines are designed to remain operable and mitigate the consequences of an accident which results in the isolation of other process lines. The signals which initiate isolation of group 4 and 5 process lines are therefore indicative of a condition which would render them inoperable.