



10CFR50.90

BOSTON EDISON

Pilgrim Nuclear Power Station
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October 30, 1992
BECO 92-126

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

License DPR-35
Docket 50-293

Proposed Change to Technical Specification
Sections 1.0, 4.3, 4.4, 4.5, 4.6, 4.7 and Associated Bases

Boston Edison Company proposes the attached change to Appendix A of Operating License No. DPR-35 in accordance with 10CFR50.90. Boston Edison considers that this change brings the Pilgrim Nuclear Power Station (PNPS) Technical Specifications into conformance with the Inservice Test (IST) Program.

The change creates a new section in the Technical Specifications to specify limiting conditions of operation and surveillance requirements for inservice code testing. The change also incorporates the term "Refueling Interval" in the definitions to specify the interval between designated ASME Code Section XI surveillances and revises the definition of surveillance interval to allow the 25% tolerance to be applied to the refueling interval period of twenty four months. Other changes have been made to provide consistency by requiring quarterly testing to be performed in accordance with the PNPS IST program.

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This change provides consistency by performing testing to a single test program and increases component availability by reducing unnecessary testing and wear on components.

These changes are being submitted as required by 10CFR50.55(a)(f)(5)(ii).

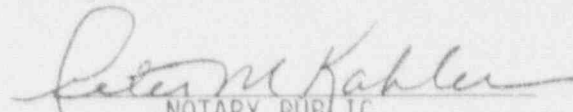

R. A. Anderson

Commonwealth of Massachusetts)
County of Plymouth)

Then personally appeared before me, Roy A. Anderson, who being duly sworn, did state that he is Senior Vice President - Nuclear of Boston Edison Company and that he is duly authorized to execute and file the submittal contained herein in the name and on behalf of Boston Edison Company and that the statements in said submittal are true to the best of his knowledge and belief.

My commission expires:

October 5, 1995
DATE


NOTARY PUBLIC

BRS/clc/ts

cc: See Page 2

Attachments: (A) Description of Change
(B) Revised Technical Specification Pages
(C) Marked-Up Pages from Current Technical Specifications

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Changes are proposed to Pilgrim Operating License No. DPR-35 Sections 1.0, 4.3, 4.4, 4.5, 4.6, 4.7 and their associated Bases. Also a new section is being added to specify the requirements for Inservice Code Testing.

Surveillance Requirements for testing of ASME Code Class 1, 2 and 3 or equivalent pumps and valves are being revised to perform testing in accordance with the PNPS IST Program. The proposed change adds the term REFUELING INTERVAL to the definitions and revises the term SURVEILLANCE INTERVAL to allow the 25% schedule tolerance to be applied to the REFUELING INTERVAL test period. The change also adds Section 3.13 to the Technical Specifications to specify Limiting Conditions of Operation and Surveillance Requirements for Inservice Code Testing.

The specific changes are identified by change bars in the margins of the affected pages in Attachment B and the marked-up current Technical Specification pages in Attachment C. To minimize the impact of the change on existing plant procedures the existing format was used where possible.

The following sections and pages are affected by this change:

<u>Section</u>	<u>Page</u>
1.0	4, 5a
4.3.G	85
4.4.A	95, 96
4.5.A	103, 104
4.5.B	106
4.5.C	107
4.5.D	108
4.6.D	126
4.7.A	155a, 156, 157

The following section and pages are being added:

<u>Section</u>	<u>Page</u>
3/4.13	205g, 205h, 205i

Reason for Change:

The Technical Specifications are being revised to conform the surveillance requirements for ASME Code Class 1, 2, and 3 pumps and valves to the IST Program as required by 10CFR50.55a(g)(5)(ii).

Presently, PNPS Technical Specification surveillance requirements are not consistent with the PNPS Inservice Test Program. When conflicts exist between a revised IST Program and Technical Specifications, 10CFR50.55a(g)(5)(ii) requires an amendment be sought to conform the technical specifications to the revised program. The PNPS IST program is being revised for its third successive 120 month inspection interval per 10CFR50.55a and complies with the 1986 edition of the ASME Boiler and Pressure Vessel Code, Section XI.

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This change also adds a new section to the technical specifications (Section 3.13) to specify Limiting Conditions of Operation and Surveillance Requirements for ASME Code Class 1, 2, and 3 or equivalent pumps and valves. Also the term refueling interval is added to the definitions to specify the period of time between designated ASME Section XI surveillances, normally performed during refueling outages, and allows the 25% schedule tolerance to be applied to the refueling interval period of 24 months.

This change conforms the technical specification to the IST program, provides consistency by performing testing to a single test program, uses test methods approved by the NRC, and increases component availability by reducing unnecessary testing and wear on equipment.

Another proposed administrative change removes Section 4.6.D.5. This section is obsolete and was applicable only during Cycle 6 and Cycle 7.

The following is a description of the specific changes being made delineated by Technical Specification section:

Section 3/4.4.G REACTIVITY CONTROL

The Surveillance Requirement for cycling the scram discharge volume vent and drain valves is being revised to test the valves quarterly in accordance with section 3.13 "1. VICE CODE TESTING". The requirement to verify the valves are open on a monthly basis is not being changed. Testing in accordance with the IST Program requires cycling these valves on a quarterly basis and does not change the intended surveillance requirement. Performing testing to a single NRC approved test program simplifies compliance while ensuring the intended surveillances are performed.

Additionally, the requirement to stroke time test the Scram Discharge Volume Drain and Vent valves closed during each refueling outage is revised to require performing this test during each refueling interval. This change conforms this surveillance requirement to the PNPS IST Program and limits the interval between tests to that specified in Section 3.13 (i.e., once every 24 months). The current interval (each refueling outage) does not provide a limit to the time period between tests. This change conforms the Technical Specifications to the IST Program, and prescribes a test frequency consistent with ASME, B&PV Code, Section XI requirements.

Section 3/4.4.A STANDBY LIQUID CONTROL SYSTEM (SBLCS)

The Technical Specification requirement to perform monthly pump testing is being revised to quarterly. This change conforms the surveillance requirements to the IST Program and provides assurance of normal system availability. The quarterly test ensures pump performance meets established operational criteria and provides trending information on flow rate, tank level, vibration, lubrication levels and verifies the technical specification specified flow and system head acceptance criteria are met. The existing technical specification monthly testing requirement results in excessive testing of the components and corresponding wear. Increased equipment wear and the potential for increased unavailability of equipment due to frequent

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testing tend to offset the added assurance of operability that monthly functional pump tests may provide. The quarterly test provides comprehensive test data points and a more conclusive assessment of operational readiness. Industry experience and a review of PNPS procedures and surveillance records indicates quarterly testing is sufficient to maintain pump performance and to assess operational readiness.

Testing of the Standby Liquid Control (SBLC) system relief valves is being revised to allow testing the valves in accordance with section 3.13 of the proposed technical specification and change the test frequency from once per cycle to once per refueling interval. This change also revises the setpoint for testing the SBLC system relief valves from its existing range of 1275 to 1800 psig to the relief valve setpoint of 1425 psig. The existing test criteria was put in place due to the test methods utilized during initial station operation. The relief valves were tested in-situ and the setpoint of 1425 ± 50 psig was difficult to achieve; therefore, Technical Specifications were amended to demonstrate the relief valves would operate within the design parameters of the system. The lower limits were chosen because the lower limit of 1275 psig is above the reactor vessel design pressure and the upper limit of 1800 psig is the overpressure limit of the SBLC System. This provided realistic setpoint criteria based on the test methods employed at the time, were consistent with the design intent, and allowed in-situ testing. Revising the setpoint to the more stringent manufacturer's set pressure of 1425 ± 43 psig and testing in accordance with the methods prescribed in the IST Program provides assurance of operability and supplies critical data for assessing relief valve condition that is not obtainable with the present functional testing. Changing the testing frequency from once-per-cycle to once-per-refueling interval brings the technical specification frequency into conformance with the IST Program.

The once-per-cycle requirement to manually initiate the SBLC system (Section 4.4.A.2.b) and pump the boron solution through the recirculation path and back to the SBLC system solution tank is being deleted. The proposed quarterly test exceeds the current requirement because the test method used verifies the pump flow, system head, and the recirculation flowpath, thus, satisfying the once-per-cycle surveillance on a quarterly basis. The once-per-cycle requirement to manually initiate the SBLC system and pump demineralized water into the reactor vessel is being changed to perform this test once per refueling interval. This test checks for proper operation of the explosive valves and proper operation of the pump and valves. Testing the pumps, valves, and explosive valves will be in accordance with the methods and frequencies prescribed in the ASME B&PV code. Also an editorial change is being made to Section 4.4.A.2.c to state "This test checks pump capacity." Operability was changed to capacity to more accurately describe the purpose of the test.

The associated bases sections have been revised to reflect the above changes.

SPECIFICATION 3/4.5 CORE AND CONTAINMENT COOLING SYSTEMS

The surveillance requirements for Core Spray, LPCI, HPCI and RCIC testing is being revised to change the frequency of pump and Motor Operated Valve Operability testing from monthly to quarterly. This change conforms the technical specifications to the PNPS IST Program and requires testing

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according to current industry standards. Industry and Plant experience demonstrates that testing on a quarterly basis provides assurance of pump operability. Testing on a monthly basis subjects the equipment to increased wear and the potential for increased unavailability of equipment due to unnecessary testing offsetting the assumed added assurance of monthly testing.

Containment Cooling System Surveillance requirements for Reactor Building Closed Cooling Water System (RBCCW) and Salt Service Water System (SSW) are being revised to perform pump and valve testing in accordance with the IST Program, Section 3.13 of the proposed technical specifications. Testing in accordance with the IST Program requires testing on a quarterly basis and does not change the intended surveillance requirement. Performing testing to a single NRC-approved test program simplifies compliance and ensures intended surveillances are performed.

Section 3/4.6.D SAFETY AND RELIEF VALVES

This change conforms the technical specification surveillance requirements to the PNPS IST Program. Presently, technical specifications require one safety valve and two relief/safety valves to be checked or replaced with bench checked valves once per operating cycle. This change revises the test requirements to be in accordance with Section 3.13 of the technical specifications. Test frequencies will be those specified in ANSI/ASME OM-1 that have been reviewed and approved for use by the NRC. The PNPS IST Program will conform to the 1986 Edition of Section XI of the ASME Boiler and Pressure Vessel Code, Subsection IWV. Subarticle IWV-3510, Safety and Relief Valves Tests, specifies that ANSI/ASME OM-1 be used for test frequency, test procedure, and corrective action. Invoking the requirements of the IST Program will require the valves that are replaced to be tested prior to resuming operation. If all the valves are replaced, they must be tested within twelve months. These additional requirements ensure prompt detection and correction of any problems. Presently, the Technical Specifications require the relief/safety valves to be checked or replaced. The IST Program amplifies the Technical Specification requirements by specifying testing methods, the time period for completing testing, and the corrective action to be taken when the valves fail to meet acceptance criteria. Compliance to ANSI/ASME OM-1 Test Code satisfies the existing Technical Specification requirements and enhances safety by imposing additional testing requirements when there are failures.

Section 3/4.7.A PRIMARY CONTAINMENT

This change conforms the technical specification surveillance requirements for testing primary containment isolation valves to the PNPS IST Program. The requirement to cycle the normally-open valves, verify main steam isolation valve operability, and to test pressure suppression chamber/reactor building vacuum breakers once per quarter is being revised. Testing will be in accordance with the IST Program, retaining the same test frequency requirements but performing the testing to a single test program (i.e., the IST Program).

This change also revises the instrument line flow check valves surveillance requirement such that testing will be in accordance with the IST Program. The frequency is changed from once-per-cycle to once-per-refueling interval, defined as at least once every 24 months. Testing on a once per cycle basis ties the requirement to an 18 month frequency which is inconsistent with the current industry standards (ASME Section XI). This change allows testing to

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be commensurate with our present refueling outage schedules and precludes unnecessary planned outages to accomplish testing once per cycle. The PNPS IST Program Relief Request 22 was reviewed and approved by the Commission to allow testing once during each refueling outage. Testing at a frequency of once each refueling interval limits the time interval between tests and will be in conformance with the revised PNPS IST program.

A new section, Section 3.13, is being added to the technical specifications to specify limiting conditions of operation and surveillance requirements for Inservice Code Testing. This new section is modeled after the BWR Standard Technical Specifications.

Determination of No Significant Hazards Consideration

The Code of Federal Regulations (10CFR50.9.) requires licensees requesting an amendment to provide an analysis, using the standards in 10CFR50.92, that determines whether a significant hazards consideration exists. The following analysis is provided in accordance with 10CFR50.91 and 10CFR50.92 for the proposed amendment which conforms the Technical Specifications to the PNPS IST Program by revising surveillance requirements where conflicting requirements exist and specifying testing for ASME Code Class 1, 2, and 3 or equivalent pumps and valves to be performed in accordance with the PNPS IST Program.

1. The operation of Pilgrim Station in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This proposed change does not alter any equipment configuration or operation at Pilgrim.

Current Technical Specifications require testing at the same frequency specified in the PNPS IST Program for Scram Discharge Valve and Primary Containment Isolation Valves. This change requires testing at the same frequency and has not changed the intended surveillance requirement; therefore, it does not involve a significant increase in the probability or consequences of an accident previously evaluated. Testing will be performed in accordance with the 1986 Edition of the ASME Boiler and Pressure Vessel Code, Section XI except where relief has been granted by the Commission per 10CFR50.55(a)(g)(6)(ii).

Frequency of testing will be changed for pump and MOV operability from monthly to quarterly for the following Core and Containment Cooling Systems; Core Spray, Low Pressure Coolant Injection, Reactor Core Isolation Cooling, and High Pressure Coolant Injection. This change reduces excessive testing of safety related system pumps and valves and conforms the PNPS Technical Specification to the IST Program. Monthly testing of pumps and valves results in increased testing without providing a significant increase in safety. The proposed change requires testing to the latest industry standards which exceed the existing technical specification surveillance requirements by specifying test methods that establish operability and establishes parameters for monitoring degradation to predict future equipment performance and failures. The proposed surveillance frequency does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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Test frequencies for Scram Discharge Volume Drain and Vent valves, Standby Liquid Control System (SLC) relief valves and explosive valves, Safety and Relief Valves and Primary Containment Vacuum Breaker and Instrument Line Flow Check Valve specified as once-per-cycle or during a refueling outage are being revised to once during a refueling interval. This change adds the term REFUELING INTERVAL to Section 1.0 of the Technical Specifications providing a test frequency for ASME Code, Section XI, IWP and IWV surveillance requirements of at least once every 24 months.

The change in frequency from once during each refueling outage to once each refueling interval as applied to testing of the Scram Discharge Volume Vent and Drain valves and the Primary Containment Vacuum Breakers provides a limiting time for performing surveillances. Current technical specifications do not provide a limiting time between surveillances; hence, the length of an operating cycle or refueling outage can delay tests beyond the proposed interval of two years. Therefore, the proposed amendment enhances safety by providing a limiting time between surveillance tests. The proposed change conforms the PNPS Technical Specifications to the PNPS IST Program and limits the period between surveillances; therefore, it does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The testing frequency for SLC relief valves is being changed to once each refueling interval as specified in Section 1.0 of PNPS Technical Specifications. This change conforms the technical specifications to the PNPS IST Program which requires testing in accordance with ASME/ANSI OM-1. Testing the explosive valves once-per-cycle is being changed to once-each-refueling interval as specified in Section 1.0 of PNPS Technical Specifications. This surveillance test checks explosion of the charge associated with the tested loop and the operation of the SLC system. Pump and valve operability is verified quarterly in accordance with the PNPS IST program. Manual initiation of the SLC system, once-per-refueling-interval verifies the system by checking for proper operation of switches and circuit continuity. Performing this test at a frequency of once-per-refueling interval tests the explosive valves in accordance with ASME B&PV Code, Section XI. The circuit and switches required for system actuation are reliable and testing once-per-refueling interval meets the intended surveillance requirement of testing during refueling outages. Testing to the latest industry standards provides assurance of operability by testing using prescribed methods at frequencies recognized by the NRC as appropriate. A testing frequency of once-per-refueling interval returns the intent of the technical specification to test during refueling outages, but imposes a restriction by providing a limiting time of two years. This change does not involve a significant increase in the probability or consequences of an accident previously analyzed.

The setpoint of the SLC system relief valves is being changed to the manufacturer's stamped setting of 1425 psig \pm 43 psig. The current technical specifications allow a range of 1275 to 1800 psig. This reflects past test practices. Current test procedures remove relief valves from the system for bench testing allowing accurate determination of the setpoint. Testing to the manufacturer's stamped setpoint enhances safety by detecting drift and degradation of the relief valve as well as assuring operability. The past test practices ensured the design intent

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of the system to prevent the loss of sodium pentaborate via lifting of the relief valve at too low a pressure and protecting the system from overpressure. Testing to the latest industry standards and to the manufacturer's stamped setpoint enhances safety by providing a means to assess the condition of the relief valve as well as their operational readiness; hence, this change does not involve a significant increase in the probability or consequences of an accident previously analyzed.

An editorial change is also being made to clarify the explanation of the surveillance test that initiates the SLC system and pumps demineralized water into the reactor vessel. The explanation describes the components that are tested and changes the word "operability" to "capacity" where the pump test is described. This change is editorial in nature, provides a better description of the test, and does not impact the probability or consequences of an accident previously evaluated.

Safety and Relief Valve testing is being revised to test in accordance with the PNPS IST Program. Testing to the ASME/ANSI OM-1 criteria requires valves to be tested to the current industry standards. The test frequency is changed from once-per-operating cycle to once-per-refueling interval. The frequency for once-per-operating cycle testing is 18 months instead of the 24 months imposed by refueling interval testing. Testing to the ASME/ANSI OM-1 criteria requires the relief/safety valves to be tested prior to resuming operation of the station. It provides an alternative to this testing by allowing the replacement of all relief/safety valves with pretested valves with a requirement for testing the replaced valves within 12 months. These requirements provide assurance of operational readiness and, coupled with prescriptive corrective action, ensures failure is quickly identified. This benefits safety offsetting the increased test interval and does not cause a significant increase in the probability or consequences of an accident previously evaluated.

Reactor Coolant System Instrument Line Flow Check Valves testing is currently required once-per-cycle. This is being revised to test in accordance with the PNPS IST Program at a frequency of once per refueling interval. This change has already been reviewed by the NRC in the Technical Evaluation Report (TER) for the PNPS IST Program Relief Request RV-22 (TAC No. M74785). This change will conform the PNPS Technical Specifications to the PNPS IST Program and is in accordance with an approved relief request. Testing at a frequency coinciding with refueling outages does not significantly lengthen the test interval and does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Refueling outage testing of the drywell-pressure suppression chamber vacuum breakers is being revised to allow testing during each refueling interval. A refueling interval test frequency of two years satisfies the intent of the technical specifications to perform the testing during refueling outages while ensuring the intended frequencies are not exceeded by limiting the time that could elapse between tests. Refueling outages currently occur on a frequency coinciding with the proposed change; therefore, this change does not effectively increase the test interval between tests. This change conforms the PNPS Technical Specifications to the PNPS IST Program and does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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The requirement to perform as-found testing of safety relief valves during Cycle 6 and Cycle 7 is obsolete and is being deleted. This change is editorial because the requirements are no longer in force, and it does not increase the probability or consequences of an accident previously evaluated.

Adding a new section to specify Limiting Conditions of Operation and Surveillance Requirements for ASME Code Class 1, 2, and 3 components imposes established requirements and does not increase the probability or consequences of an accident previously evaluated.

2. The operation of Pilgrim Station in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes which revise testing frequencies and/or perform testing in accordance with the IST Program do not alter the design or change the operation of Pilgrim Station and, therefore, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Adding the term Refueling Interval to the definitions and incorporating this term where applicable provides a method of specifying test intervals associated with ASME Section XI IWP and IWV requirements. This conforms the PNPS technical specifications to the PNPS IST Program and does not create the possibility of a new or different kind of accident previously evaluated.

Revising the setpoint for testing the Standby Liquid Control System from a range of 1275 to 1800 psig to the manufacturer's stamped setting of 1425 psig \pm 43 psig results in testing the relief valves to industry standards. It also provides more conclusive results for tracking degradation and drift; thus, the proposed change is inherently conservative and will not create the possibility of a new or different kind of accident previously evaluated.

Editorial changes to more clearly describe surveillance requirements and deleting an obsolete requirement do not change technical specification requirements; therefore, these changes do not create the possibility of a new or different kind of accident previously analyzed.

Adding a new section to the technical specifications to specify limiting conditions of operation and surveillance requirements imposes further limits, hence, the change does not create the possibility of a new or different kind of accident previously evaluated.

3. The operation of Pilgrim Station in accordance with the proposed amendment will not involve a significant reduction in the margin of safety.

The current technical specifications were written prior to the development of ASME Section XI resulting in the test requirements and frequencies being based on limited industry experience. The current industry standards reflect practical requirements and provide assurance equipment is capable of performing its safety function when required.

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Revising test intervals from once-per-cycle to once each refueling interval extends the time between tests by six months. Testing will be performed in accordance with and at intervals specified in PNPS IST Program that meets the requirement of the ASME B&PV Code Section XI except where relief has been granted by the Commission as allowed by 10CFR50.55(a)(g)(6)(i).

This change also changes the testing frequency for Core and Containment Cooling system pumps and motor operated valves from monthly to quarterly conforming the technical specification to the PNPS IST Program and current industry standards. Industry experience has demonstrated this frequency assures the operational readiness of ASME Code Class 1, 2, and 3 pumps and valves. As discussed under ' ' above the proposed test frequencies provide adequate assurance of system operability. Therefore, the proposed amendment does not involve a significant reduction in the margin of safety.

Adding the term Refueling Interval to the definitions of technical specifications requires testing at a frequency of once per refueling interval instead of once per refueling outage. Refueling outages currently occur approximately every two years but could extend beyond two years if the unit is in an extended outage. When refueling outages occur at a frequency of approximately 2 years, changing the frequency to refueling interval having a frequency not to exceed two years does not involve a reduction in the margin of safety. However, when the time between refueling outages extends beyond two years changing to a frequency of refueling interval limits the period between surveillance tests irrespective of when refueling outages occur and in this case is conservative. Changing the frequency of refueling outage to refueling interval for the applicable components does not involve a significant reduction in the margin of safety.

Changing the criteria for testing the SBLC system relief valve from a range of 1275 to 1800 psig to the manufacturer's stamped setpoint of 1425 psig \pm 43 psig is conservative and reflects the current industry standards. Therefore, this proposed change does not involve a significant reduction in the margin of safety.

Removing an obsolete surveillance requirement, reformatting the text and other editorial changes do not change the technical specification requirements; therefore, these changes do not involve a significant reduction in the margin of safety.

Adding a new section to the technical specifications imposing limiting conditions of operation and surveillance requirements for Inservice Code Testing is conservative and does not involve a significant reduction in the margin of safety.

This proposed change has been reviewed and recommended for approval by the Operations Review Committee and reviewed by the Nuclear Safety Review and Audit Committee.

Schedule of Change

This change will be implemented 6 months after BECo's receipt of its approval by the NRC.