BOSTON EDISON COMPANY
800 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02199

WILLIAM D. HARRINGTON
SENIOR VICE PRESIDENT
NUCLEAR

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BECo 85-135

Dr. Thomas E. Murley
Office of Inspection and Enforcement
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

License No. DPR-35
Docket No. 50-293

Report of Changes, Tests, and Experiments
Performed at Pilgrim Nuclear Power Station

Dear Sir:

In accordance with 10CFR50.59(b), Boston Edison hereby submits a report containing a brief description and safety evaluation for the changes, tests and experiments performed at Pilgrim Nuclear Power Station for the period of January 22, 1984 thru January 21, 1985.

The attachment contains a brief description and a summary of the safety evaluations for these changes and tests which did not:

- increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety.
- create a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR; or
- reduce the margin of safety as defined in the basis for any technical specification.

We trust that this will be acceptable. However, should you have any questions or concerns, please do not hesitate to contact us.

Very truly yours,

W. D. Harrington

ERM/kmc

Attachment

cc: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

IE24

TP-84-276 To provide detailed instructions to station personnel for the conduct of pre-operational testing on Bleeder Trip Valves 3209, 3206, 3109, and 3106 following completion of PDC 84-72.

TP-84-281 To provide detailed instructions to station personnel for the conduct of a pre-operational test following repair maintenance to the New Scram Discharge Volume instrumentation and valves. Maintenance Requests (MR's) 84-3-120 and 84-3-121 specify the maintenance to be performed.

TP-84-283 To provide detailed instructions to station personnel for the conduct of a functional test on the two automatic temperature control valves (TCV-4070A and TCV-4070B) on the discharge of E-211A and E-211B that were installed per PDC 84-32.

TP-84-289 To provide detailed instructions to station personnel for the conduct of a soap bubble leak test on modifications performed by PDC 83-38.

TP-84-309 To provide a method for proving administratively, SSW system operability in a manner more consistent with the FSAR Heat Removal Criteria. This criteria of section VI requires that a SSW Loop deliver 5000 gpm flow at an inlet temperature of 65°F (equivalent).

TP-85-01 To provide detailed instructions to station personnel for the conduct of testing of drywell-torus pressure boundary by use of compressed air.

ATTACHMENT 1
Plant Changes
(Plant Design Change Request-PDCR)

PDCR 81-04D — Torus Temperature Monitoring System

This PDCR revised the PNPS Technical Specification to incorporate the requirements of NUREG 0661 for the Torus Temperature Monitoring System

Ref. FSAR Section 5.2.3.10

Safety Evaluation No. 1635

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) but does constitute a change to a technical specification.

PDCR 81-20 — RPS Power Supply Electrical Protection Assemblies

This PDCR provided for the addition of six protective relay assemblies for the Reactor Protection System's power supplies.

Ref. FSAR Sections 7.2, 7.2 5, 8.8.3
Figure 7.2-1

Safety Evaluation No. 1238

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 81-38 — HPCI/RCIC Self-Contained Type Pressure Regulating Valves

This PDCR provided for the replacement of the HPCI/RCIC Pressure Regulating valves with similar self-contained type pressure regulating valves to decrease the probability of valve failure.

Ref. FSAR Figures 6.4-1 and 7.4-2.

Safety Evaluation No. 1634

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 82-14 — Radwaste Sample Lines

This PDCR provided for the addition of 2 new radwaste sample lines and the replacement of existing sample lines with a larger OD line.

Ref. FSAR Figures 9.2-3, 9.2-4, and 10.14-1

Safety Evaluation No. 1500

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a tecnnical specification.

PDCR 82-21 Modify Spring Charging Circuit of ECCS Pump

This PDCR provided for the "jump-out" of 52/1S contact in the spring charging circuit of 4160 volt breakers A503, A506, A507, A603, A606, and A607.

Ref. FSAR Sections 14.7.1.3.1, 8.1, 8.2, and 8.4.

Safety Evaluation No. 1467

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-01 Removal of Main Steam /Plant Heating Valve

This PDCR provided for the removal of the manual isolation valve that permits the flow of main steam to the plant heating heat exchangers.

Ref. FSAR Section 10.9.3.2

Safety Evaluation No. 1488

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-19 Repair Torus Shell Defects

This PDCR provided for modification of the PNPS torus and attached piping to meet the requirements of NUREG 0661 criteria.

Ref. FSAR Sections 5, 12, and Appendices C and L

Safety Evaluation No. 1644

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-19 D&F Modifications of the Torus

This PDCR modified the Torus, torus attached piping supports, SRV discharge line supports and wetwell vacuum breakers.

Ref. FSAR Sections 5 and 12 and appendices C and L

Safety Evaluation No. 1543

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-30 Addition of Drain Line Valves

This PDCR provided for the addition of hermitically-sealed manual isolation globe valves to drain lines inside primary containment.

Ref. FSAR Section 4.11.4, Appendices A, C

Safety Evaluation No. 1583

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-31 Valve Replacement

This PDCR provided for the replacement of the RWCU Pump Suction Line Outboard Containment Isolation Valve.

Ref. FSAR Section 4.9

Safety Evaluation No. 1572

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-34 Steam Jet Air Ejector Valves

This PDCR provided for the replacement of the steam jet air ejector pressure control valves and block valves to eliminate valve seat leakage.

Ref. FSAR Figure 11.4-1

Safety Evaluation No. 1576

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-40 Compressed air System/Drywell Nitrogen Valves

This PDCR provided for the Torus area replacement of a gate valve for the drywell instrument nitrogen header, and connecting piping.

Ref. FSAR Sections 5.2.3.5, 10.11, 12.2, and Appendices C, H, L.

Safety Evaluation No. 1596

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-52 Addition of Cation Tanks Level Gauge Sensing Lines

This PDCR provided additional wiring for the previously procured and installed Cation Tank Level Gauge to enable operation of the Y-strainer flush water, when needed.

Ref. FSAR Section 11.7, Figures 11.7-1 and 11.7-2, appendices A&C

Safety Evaluation No. 1598

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-53 MCPR limits and SRV Setpoint

This PDCR changed MCPR limits for cycle 6 operation and raised the permissible SRV setpoint.

Ref. FSAR Section 4.4.10
Table 4.4.-1

Safety Evaluation No. 1503

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-63 Barton Transmitter Replacement

This PDCR provided for the replacement of Barton transmitters with Rosemount assemblies, and was a result of the discontinuance of the Barton Transmitter model.

Ref. FSAR Table 7.7.1

Safety Evaluation No. 1618

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-64 RPV Water Level Instrumentation Piping

This PDCR provided a 2 inch block valve in the non-class 1 section of the RPV drainline.

Ref. FSAR Section 7.10.3, Figures 4.3-2 and 7.3-1

Safety Evaluation No. 1705

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 83-64A Reactor Vessel Pipe Support Modifications

This PDCR provided for the Reduction of support loads by modifying support at location 3 and redesign three supports which were removed for recirculation replacement effort.

Ref. FSAR Section A.3.1.1.1 and A.3.1.1.2

Safety Evaluation No. 1722

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-20 Upgrade Standby Gas Treatment System to meet Environmental Qualifications.

This PDCR provides for replacing wiring in panels C68 and C69, and for replacing the existing terminations for exhaust fan motors VEX-210A and B.

Ref. FSAR Figures 5.2-17 and 7.18-2

Safety Evaluation No. 1699

This change does not involve and unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-28 Replacement of Low Pressure Feedwater Heater

This PDCR provided for the replacement of the low pressure feedwater heater E-102A and its level control instrumentation.

Ref. FSAR Section 11.8.3.2
Figure 11.8-1

Safety Evaluation No. 1642

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-31 Steam Extraction Line Replacement

This PDCR provided for the replacement of two carbon steel third point extraction steam lines from L P Turbines X103A&B to feedwater heaters E103 A&B.

Ref. FSAR Figures 0.1-15, 0.1-17, 0.1-20, 0.1-22, 0.1-23, 0.1-25, 0.1.29, 0.1-41

Safety Evaluation No. 1651

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-33 Core Spray Vent Lines

This PDCR provided for the extension of Core Spray system high point vent lines to a safer location for plant personnel.

Ref. FSAR Sections 6.4.3, 6.5.1.2.4, 7.4 and Figure 7.4-8

Safety Evaluation No. 1676

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-36 Relocation of RWCU Containment Isolation Valve LLRT Connection.

This PDCR provided for the removal and relocation of existing local leak rate test valves and piping.

Ref. FSAR Figure 4.9-2

Safety Evaluation No. 1663

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-43 Modification of Nitrogen Recycle System

This PDCR provided for the removal of the nitrogen recycling system which is no longer used.

Ref. FSAR Figures 5.4-1/5.2-16 and 10.6-1

Safety Evaluation No. 1695

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-54 RWCU - Decontamination Connections

This PDCR replaced a temporary decontamination flange and elbow with a spool piece of piping; removed a temporary decontamination flange, elbow and reducer for replacement of valve; and removed a pipe section and replaced with a flanged spool piece.

Ref. FSAR Figure 4.9-2, Fig. 0.1-36
Figure 0.1-38, Section 4.9.5

Safety Evaluation No. 1689

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-58 RBCCW System Supports

This PDCR upgraded RBCCW system supports, including new damping valves.

Ref. FSAR Section 12.2.3.5.2
Table 12.2-3

Safety Evaluation No. 1697

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-62 Replacement of Motor Operated Valve

This PDCR provided for the replacement of motor operated valve MO-1201-80 located at the discharge of the regenerative heat exchanger E208A in 4" line DA-12.

Ref. FSAR Figure 4.9-2

Safety Evaluation No. 1711

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-64 RBCCW Compartment Modification for Environmental Qualification

This PDCR provided for the installation of a "blast panel" over the vent area currently existing for the HPCI compartment.

Ref. FSAR Section 12, Appendix C

Safety Evaluation No. 1720

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

PDCR 84-65 Relocation of Fuse Holder on Rack C2264

This PDCR provided for the replacement of an existing fuse block mounted on Rack C2264 with a fuse holder.

Ref. FSAR Section 7.12.5

Safety Evaluation No. 1726

This change does not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a technical specification.

Plant Tests
(Temporary Procedures - TP)

The following Temporary Procedures (TP) did not involve an unreviewed safety question as defined in 10CFR50.59(a) or a change to a Technical Specification.

TP-82-53 To provide a method for proving administratively, SSW system operability in a manner more consistent with the FSAR Heat Removal Criteria. This criteria of section VI requires that a SSW Loop deliver 5000 gpm flow at an inlet temperature of 65°F (equivalent).

TP-83-25 The purpose of this test procedure is to assure that the new AGCO pressure relief valve and the VDGT piston check valve installed in the nitrogen supply system by PDC 83-06 are functionally checked out and operationally proven prior to putting them into service.

TP-83-37 To provide detailed instructions to station personnel for the conduct of a pressure test required on piping and associated valves (AO-5036A, AO-5036B, AO-5042A, AO-5042B, AO-5044A, AO5044B, AO-5035A, AO-5035B) replaced under PDC 83-25.

TP-83-38 To provide detailed instruction to Station personnel for the conduct of pre-operational tests required on the piping and associated valves replaced under PDC 83-25.

TP-83-39 To provide detailed instructions to station personnel for the conduct of post construction and pre-operational tests required on the piping and associated valves (AO-3712, S8-1, S-8-20) replaced under PDC 83-39.

TP83-40 To provide detailed instructions to station personnel for the conduct of pre-operational tests required on valve MO-1201-5 replaced under PDC 83-31.

TP-83-43 To provide detailed instructions to station personnel for the conduct of pre-operational tests required on the valve AO2301-7 and stop/check valve 2301-74 replaced under PDC 83-28.

TP-83-45 To provide detailed instructions to Station personnel for the conduct of pre-operational tests required on valves 1301-64 and 1301-50, replaced under PDC 83-29.

TP-83-47 To provide detailed instructions to station personnel for the conduct of pre-operational tests required on the valves (AO-4A through AO-4G) replaced under PDC 83-17.

TP-83-49 To provide detailed instruction to station personnel for conducting the hydrostatic test required on piping and associated valves installed on main steam line drains and HPCI steam line under PDC 83-30.

TP-83-51 To provide detailed instructions to station personnel for the conduct of pre-operational tests required on condensate pumps(P-101A, P101B and P101C), Flow Sensors (FE-3307A1, FE-3307A2, FE-3308B1, FE-3308B2, FE-3309C1, and FE-3309C2) and Flow Indicators (FI-3307, FI-3308, and FI-3309), Flow Recorder (FRS-3307/FRS-3308/FRS3309), Annuniciator "Low Cond. Press/Low Cond. Flow".

TP-83-53 To demonstrate that the level controls on Feedwater Heater E-102B function in accordance with design requirements and to establish initial heater level controller settings.

TP-83-68 To provide detailed instructions to station personnel for the conduit of pre-operational tests for the condensate demin vent cyclone and vent line sensing instrumentation installed under PDC 82-27.

TP-84-T-8 To provide detailed instructions to station personnel for the conduct of pre-operational testing of Nitrogen Purge Vaporizer, valves PSV5018, 2"-65 (H.W. Supply), 2"-81MC (NE inlet) and instruments; PI5019, PI5019B, TI5020 A & B, TSL5014 & 15, TIC5013 A & B, PSH5016, TI5017, TPV5013, HS5013, SV5013, Y5013 installed by PDC 83-24.

TP-84-19 To calibrate the new L&N Turbine Vibration Recorder VR-3000. This recorder is the replacement for the GE Recorder Model 1A100315.

TP-84-73 To provide detailed instructions to station personnel for the performance of an in-service leak rate test on the valve and piping modification specified in PDC83-45.

TP-84-97 To functionally check relays A44X, A44Y, A7011A, and A7017A that were temporarily removed for modification work. This procedure will confirm their operability. The format of this procedure is to verify the functional check of the individual relay and then to test the scheme for integral operability.

TP-84-99 The purpose of this test procedure is to provide detailed instructions for the testing of the "B" Train (120VAC) Containment Atmospheric Monitoring System isolation valves. These valves are SV-5065-31B, SV-5065-27B, SV-5065-15B, and SV-5065-13B.

TP-84-100 The purpose of this test procedure is to provide detailed instructions for the testing of the "B" train (125 VDC) Containment Atmospheric Monitoring System isolation valves. These valves are SV-5065-35B, SV-5065-25B, SV-0565-22B, and SV-5065-20B.

TP-84-101 The purpose of this test procedure is to provide detailed instructions for the testing of the "A" train (125 VDC) Containment Atmospheric Monitoring System isolation valves. These valves are SV-5065-37A, SV-5065-24A, SV-5065-21A, and SV-5065-18A.

TP-84-102 The purpose of this test procedure is to provide detailed instructions for the testing of the "A" Train (120 VAC) Containment Atmospheric Monitoring System Isolation valves. These valves are SV-5065-33A, SV-5065-26A, SV-5065-14A, and Sv-5065-11A.

TP-84-103 The purpose of this test procedure is to provide detailed instruction for the testing of the heat tracing for the H2/02 Analyzer and Post Accident Sample System.

TP-84-110 The purpose of this test procedure is to provide detailed instructions for the testing of the Train A (120V AC) Post Accident Sampling System Isolation Valves. These valves are SV-5065-64, SV-5065-66, SV5065-68, SV-5065-70, SV-5065-72, and SV-5065-74.

TP-84-111 The purpose of this test procedure is to provide detailed instructions for the testing of the Train A (125V DC) Post Accident Sampling System Isolation Valves. These valves are SV-5065-63, SV-5065-65, SV-5065-67, SV-5065-69, SV-5065-71, and SV-5065-73.

TP-84-112 The purpose of this test procedure is to provide detailed instructions for the testing of the Train B (120V AC) Post Accident Sampling System Isolation Valves. These valves are SV-5065-76, SV-5065-78, SV-5065-80, SV-5065-82, SV-5065-84 and SV-5065-86.

TP-84-113 The purpose of this test procedure is to provide detailed instructions for the testing of the Train B (125V DC) Post Accident Sampling System Isolation Valves. These valves are SV-5065-75, SV-5065-77, SV-5065-79, SV-5065-81, SV-5065-83 and SV-5065-85.

TP-84-115 The purpose of this test procedure is to provide detailed instructions for the Pre-Operational/Functional Testing of the Containment Atmosphere Sampling System H2/02 Analyzer, Sequencer and auxiliary components.

TP-84-129 The purpose of this test procedure is to provide detailed instructions for the testing, prior to energizing the Motor Control Centers, Transformers, and Panel Boards associated with the Containment Atmospheric Sampling System.

TP-84-136 The purpose of this test procedure is to provide detailed instructions for the testing of the "A" loop for the "Hot" Machine Shop Mezzanine Electrical Equipment Room Cooling Fan, the Post Accident Sample Station Feeder Circuit, and the Post Accident Station Area Lighting Feeder Circuit.

TP-84-138 The purpose of this test procedure is to provide detailed instructions for the testing of the "B" loop for the "Hot" Machine Shop Mezzanine Electrical Equipment Room Cooling Fan, the Post Accident Sample Station Feeder Circuit, and the Post Accident Station Area Lighting Feeder Circuit.

TP-84-139 To provide detailed instructions for the conduct of testing required by PDC 83-52, i.e. piping of a level gauge to the Cation Regeneration Tank; Installation of Y-strainers in the level-sensing lines of LG-3998 to prevent resin or resin fines from entering LG-3998; providing remotely operated flushing capability to the Y-strainers.

TP-84-145 The purpose of this test procedure is to provide detailed instructions to verify that the modifications to the Reactor Pressure Boundary Leak Detection System have been properly installed, functions as designed in all modes of operation, and has been correctly interfaced with the Post Accident Monitoring Panel (C-170), Main Control Panel (C-904) and the Primary Containment Isolation System Relay Cabinet (C-941).

TP-84-146 The purpose of this test procedure is to provide detailed instructions to verify that the modifications to the Reactor Pressure Boundary Leak Detection System have been properly installed, functions as designed in all modes of operation, and has been correctly interfaced with the Post Accident Monitoring Panel (C-171), Main Control Panel (C-904) and the Primary Containment Isolation System Relay Cabinet (C-942).

TP-84-151 The purpose of this test procedure is to provide detailed instructions for the Pre-Operational/Functional testing of the Containment Atmospheric Sampling System H2/02 Analyzer, Sequencer and auxiliary components.

TP-84-152 The purpose of this test procedure is to provide detailed instruction on the reinstallation of level switches 29LS-3825 and 29LS-3826.

TP-84-162 The purpose of this test procedure is to provide detailed instructions for the testing of the Post Accident Sample System Chiller.

TP-84-164 To provide detailed instructions to station personnel for the conduct of pre-operational testing of ground detectors and undervoltage relays replaced in Panels D10, D16, and D17 by PDC 84-42.

TP-84-185 To demonstrate that the level controls on Feedwater Heater E-102A function in accordance with design requirements and to establish initial heater level controller settings.

TP-84-186 To demonstrate that the level controls on Feedwater Heater E-103B function in accordance with design requirements and to establish initial heater level controller settings.

TP-84-188 To provide detailed instructions to station personnel for the conduct of Initial Service Leak Tests for modifications conducted by PDC's 83-34 and 39 and 84-31, 32, 34, 43 and 61.

TP-84-189 To provide detailed instructions to station personnel for the conduct of pre-operational testing of the MSIV Limit Switches replaced, to meet environmental qualification, by PDC 84-11A.

TP-84-198 To provide detailed instructions to station personnel for the conduct of pre-operational tests required on valve MO-1201-80 replaced under PDC 84-62.

TP-84-202 To provide detailed instructions to station personnel for the conduct of post-construction and pre-operational tests required on the drywell-torus vacuum breaker upgraded under PDC 83-19G.

TP-84-204 To provide detailed instructions to station personnel for the conduct of pre-operational tests on the modifications on the Reactor Pressure Boundary Leak Detection System by PDC 83-54.

TP-84-220 The intent here is to establish a procedure which will facilitate verification of calibration of the molded frame breakers which comprise the essential protective elements of MCC-B17A and MCC-B18A.

TP-84-222 To provide detailed instructions to station personnel for the conduct of pre-operational tests on the Block valve added by FRN 83-48-12 and FRN 83-48-18 of PDC 83-48.

TP-84-223 To provide detailed instructions to station personnel for the conduct of a hydrostatic leak test on the modified SBGTS sprinkler deluge valves (SV-9007A&B) per PDC 84-52.

TP-84-226 The purpose of this procedure is to provide detailed instructions for the complete Pre-Operational Testing of the Post Accident Sampling System (PASS).

TP-84-244 To provide detailed instructions to station personnel for the conduct of a soap bubble leak test on modifications performed by FRN 83-38-08.

TP-84-249 To provide detailed instructions to station personnel for the conduct of pre-operational testing of the Yarway Level Indicating Switches being upgraded by PDC 84-13A.

TP-84-264 To calibrate the eleven new Westronics recorders installed under PDC 84-66.

TP-84-265 To calibrate and functionally check HPCI Suppression Chamber Water Level switches which have been replaced with a model that is environmentally qualified.

TP-84-268 To provide detailed instructions to station personnel for the conduct of pre-operational testing of the rebuilt solenoid valve and replaced limit switches on the Reactor Water Sample System Inboard Isolation Valve by PDC 84-11B.