

**BOSTON EDISON**

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BECO 92- 017  
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U.S. Nuclear Regulatory Commission  
 Document Control Desk  
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 Docket 50-293

**Boston Edison Company's Response to the  
 NRC Supplemental Safety Evaluation of the Pilgrim  
 Nuclear Power Station (PNPS) Response to the  
Station Blackout (SBO) Rule (TAC No. 68585)**

This letter responds to the NRC Supplemental Safety Evaluation (SSE) dated January 15, 1992, requesting a schedule for the implementation of recommendations included in the original NRC Safety Evaluation. This response was requested within 30 days of receipt of the NRC SSE (i.e., by February 26, 1992).

The initial NRC Safety Evaluation, dated February 13, 1991, included recommendations on 480V and 4kv cross-tie circuit testing, condensate inventory, effects of ventilation and adherence to Technical Specification requirements for torus temperature and reactor vessel conditions for an 8 hour SBO duration. In addition, the Supplemental Safety Evaluation requested that Boston Edison Company commit to implementing "Quality Assurance Guidance for Non-Safety Equipment" included in Appendix A to Regulatory Guide 1.155 for SBO equipment.

The resolution and schedule for implementing these recommendations is presented below.

SSE Item 2.2, Cross-tie Circuit Testing

We have designated the Station Blackout-Diesel Generator (SBO-DG) as the Alternate (AAC) source. As discussed in our response to the NRC Safety Evaluation (BECO letter #91-074, dated June 1991), a modification will be implemented during Refueling Outage 9 that would allow the energization of the shutdown buses with power from the SBO-DG. After completing the modification, a test will be conducted to demonstrate the energization of the shutdown buses with power from the SBO-DG within 10 minutes of a SBO determination. The test will demonstrate the operability of the 4kv and 480V cross-tie circuit under SBO conditions to ensure that the AAC source meets the guidelines of NUMARC 87-00, Appendix B, Item B 12.

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SSE Item 2.3, Condensate Inventory for Decay Heat Removal

This recommendation was evaluated and we have concluded that the plant has sufficient condensate inventory for coping with an 8 hour SBO duration.

SSE Item 2.4, Effects of Ventilation

This recommendation is being evaluated at this time. Our evaluation and supporting documentation will be completed by the 1992 Mid-Cycle Outage (currently scheduled for October 17, 1992).

SSE Item 2.5, Reactor Coolant Inventory

We have evaluated the torus temperature and reactor vessel conditions for an 8 hour SBO duration and concluded that the governing parameters will be maintained within the Technical Specification limits for an 8 hour SBO duration.

SSE Item 2.6, Quality Assurance for SBO Equipment

We have evaluated the SBO diesel generator as the SBO equipment. The SBO equipment was procured, installed and tested as non-class 1E equipment. The interface components and modifications to safety-related systems will be accomplished in accordance with the QA Program for safety-related systems (10CFR50, App. B requirements). The SBO equipment will be tested, modified and maintained in accordance with the QA program for safety-related equipment, except for the following: procurement document control, and control of purchased material, equipment and services will be accomplished in accordance with the BECo policies and procedures for Management Quality Control Items. The MQCI policies and procedures conform to the guidance of NRC Generic Letter 85-06 for ATWS equipment. The Regulatory Guide 1.155, Appendix A is consistent with the guidance provided in Generic Letter 85-06. Therefore, the requirement of R.G.1.155, APP. A is met by our MQCI policies and procedures.

All existing plant equipment used during an SBO event (i.e., station batteries, condensate storage tank, HPCI, RCIC, RHR, LPCI, ADS, balance of plant equipment) will continue to meet their QA program requirements for safety related equipment.

Safety Evaluation, Item 2.2.2 Proposed AAC Power Source Loadings

We wish to bring to your attention the correct SBO-DG loadings initially discussed in the BECo letter #90-106, dated August 31, 1990.

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The NRC Safety Evaluation, dated February 13, 1991, states that (2nd paragraph) the sum of the loads expected to be carried by the SBO-DG does not include the loads associated with the Turbine Generator auxiliaries, CRD pump, and the motor operated valves. Item #14 of Attachment III, to BECo letter #90-106 includes turbine generator auxiliary loads, but excludes loads for CRD pump and motor operated valves. The total SBO-DG loads still remains 1750kw as stated in the Attachment III. Item 2.2.2 of the NRC Safety Evaluation should be corrected for SBO-DG loadings to include Turbine Generator auxiliaries.

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