



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

EVALUATION OF NRC GENERIC LETTER 88-01 RESPONSE

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293

1.0 INTRODUCTION

Boston Edison Company, the licensee, submitted its responses to NRC Generic Letter (GL) 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping" for the Pilgrim Nuclear Power Station by letters dated August 4, 1988 and June 19, 1989. GL 88-01 requested licensees and construction permit holders to resolve the (IGSCC) issue for BWR piping made of austenitic stainless steel that is 4 inches or larger in nominal diameter and contains reactor coolant at a temperature above 200 degrees Fahrenheit during power operation, regardless of Code classification. The licensee was requested to address the following:

1. Their current plans regarding pipe replacement and/or other measures taken to mitigate IGSCC and to provide assurance of continued long term integrity and reliability of the subject piping.
2. Their Inservice Inspection (ISI) Program as required by GL 88-01, to be implemented at the next refueling outage for austenitic stainless steel piping, and that conforms to the staff positions on inspection schedules, methods and personnel and sample expansion.
3. A proposed Technical Specification change to include a statement, in the section on ISI, that the ISI Program for piping covered by the scope of this letter will follow staff positions on schedule, methods and personnel, and sample expansion in GL 88-01 (See model BWR Standard Technical Specification enclosed in GL 88-01). It is recognized that the Inservice Inspection and Testing sections regarding these welds may be removed from the Technical Specifications through the TS improvement program. In this case, this requirement would remain with the ISI section when it is removed to an alternative document.
4. Confirmation of plans to ensure that the Technical Specifications related to leakage detection will be in conformance with the staff positions on leak detection included in GL 88-01.

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5. Their plans to notify the NRC, in accordance with 10 CFR 50.55a(g), of any identified flaws that do not meet the IWB-3500 criteria of Section XI of the Code in regard to continued operation without evaluation of the flaw, or a change found in the condition of welds previously known to be cracked. Such notification should include evaluation of the flaws, justification for continued operation and/or your repair plans.

## 2.0 DISCUSSION

The licensee's response to GL 88-01 has been reviewed by the staff with the assistance of its contractor, Viking Systems International (VSI). The attached Technical Evaluation Report (TER) is VSI's evaluation of the licensee's response to GL 88-01. The staff has reviewed the TER and concurs with the evaluations, conclusions, and recommendations contained in the TER with the exception noted below. In the review of the licensee's GL 88-01 submittal, the staff has found the following positions to be unacceptable:

1. The licensee's position to exclude from the scope of applicability of GL 88-01, the welds in the portion of the RWCU piping outboard of the isolation valves. As a minimum the licensee should prepare an inspection plan of the RWCU piping outboard of the isolation valves on a sampling basis with justification.
2. The licensee's position on sample expansion does not comply with the requirements in GL 88-01.
3. The licensee's position not to amend the Technical Specification (TS) to include an ISI statement as required in GL 88-01.

For a detailed discussion of these items see sections 2.0 and 3.0 of the TER attached to the SE.

The staff has re-evaluated the frequency of leakage monitoring. After discussions with several BWR licensees the staff concluded that monitoring every four hours creates an unnecessary administrative hardship on the plant operators. Therefore, the staff takes exception to the TER recommendation and considers the licensee's position to monitor unidentified leakage every eight hours acceptable.

## 3.0 CONCLUSION

Based on our review of the licensee's responses the staff concludes that the responses are acceptable with the exception of the licensee's positions as identified above. The licensee is requested to submit a TS change to include a piping ISI statement as required in GL 88-01 and submit as committed in the licensee's letter of June 19, 1989, the TS on leakage monitoring with the exception that unidentified leakage may be monitored every eight hours instead of every four hours.

The staff also concludes that the proposed IGSCC inspection and mitigation program will provide reasonable assurance of maintaining the long term structural integrity of austenitic stainless steel piping at the Pilgrim Nuclear Power Station.

Principal Contributor: William H. Koo

Dated: