



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

ENCLOSURE 4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REVIEW OF RESPONSE TO NRC GENERIC LETTER 88-01

COMMONWEALTH EDISON COMPANY

DRESDEN NUCLEAR POWER STATION, UNIT 3

DOCKET NO. 50-249

1.0 INTRODUCTION

Commonwealth Edison Company, the licensee, submitted its response to NRC Generic Letter (GL) 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping" for Dresden Nuclear Power Station, Unit 3, by letter dated July 29, 1988, and additional information as requested by the staff was provided by letter dated July 21, 1989. GL 88-01 requested licensees and construction permit holders to resolve the Intergranular Stress Corrosion Cracking (IGSCC) issue for BWR piping made of austenitic stainless steel that is four 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. The current plans regarding pipe replacement and/or other measures taken to mitigate IGSCC and provide assurance of continued long-term integrity and reliability.
2. The Inservice Inspection (ISI) Program to be implemented at the next refueling outage for austenitic stainless steel piping covered under the scope of this letter that conforms to the staff positions on inspection schedules, methods and personnel, and sample expansion included in GL 88-01.
3. The Technical Specification (TS) change to include a statement in the section on ISI that the ISI Program for piping covered by the scope of this letter will be in staff positions on schedule, methods and personnel, and sample expansion included in GL 88-01 (see model BWR Standard Technical Specifications enclosed in GL 88-01). It is recognized that the Inservice Inspection and Testing sections may be removed from the Technical Specifications Improvement programs. In this case, this requirement shall remain with the ISI section when it is included in an alternative document.
4. The confirmation of your plans to ensure that the TS related to leakage detection will be in conformance with the staff positions on leak detection included in GL 88-01.
5. The plans to notify the NRC in accordance with 10 CFR 50.55a(g) of any flaws identified that do not meet IWB-3500 criteria of Section XI of the

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Code for continued operation without evaluation, or a change found in the condition of the welds previously known to be cracked and your evaluation of the flaws for continued operation and/or your repair plans.

2.0 DISCUSSION

The licensee's response to NRC GL 88-01 has been reviewed by the staff with the assistance of its contractor, Viking Systems International (VSI). The attached Technical Evaluation Reports (TERs) are VSI's evaluation of the licensee's response to NRC GL 88-01. The staff has reviewed the TERs and concurs with the evaluations, conclusions, and recommendations contained in the TER with the exception as discussed below with regards to licensee's positions IGSCC classifications of castings. 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 which excludes welds in piping in the portions of the Reactor Water Clean-up (RWCU) outboard of the isolation valves.
2. The licensee's position not to amend the TS to include a statement on ISI as required in GL 88-01.
3. The licensee's position to average the unidentified leak rate over a 24-hour period.

For a detailed discussion of these items, see Sections 2.0 and 3.0 of the TER.

The above identified items, with regards to TS amendments, have been approved by the Committee to Review Generic Requirements as part of GL 88-01 with the exception that unidentified leakage may be monitored every 8 hours instead of every 4 hours as required in GL 88-01. The staff has re-evaluated the frequency of leakage monitoring. After discussions with several BWR operators the staff concluded that monitoring every 4 hours creates an unnecessary administrative hardship to the plant operators. Thus, Reactor Coolant System (RCS) leakage measurements may be taken every 8 hours instead of every 4 hours as required in GL 88-01.

3.0 CONCLUSION

Based on the review of the licensee's NRC GL 88-01 response, the staff concludes that the response, as evaluated, is acceptable with the exception of the licensee's positions as identified above. The licensee is requested to submit a TS change that would require an ISI statement and leakage

requirements as required in GL 88-01 with the exception that leakage may be monitored every 8 hours instead of every 4 hours as required in GL 88-01. Furthermore, the licensee must submit inspection plans for the RWCU piping outboard of the isolation valves.

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 in the Dresden Nuclear Power Station, Unit 3.

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Dated: August 23, 1990