



General Electric Company
175 Curtner Avenue, San Jose, CA 95126

February 14, 1994

MFN No. 017-94
Docket STN 52-004

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

Attention: Richard W. Borchardt, Director
Standardization Project Directorate

Subject: NRC Requests for Additional Information (RAIs) on the Simplified Boiling
Water Reactor (SBWR) Design

Reference: 1. Transmittal of Requests for Additional Information (RAIs) for the
SBWR Design, Letter from M. Malloy to P. W. Marriott dated
September 15, 1994.
2. MFN No. 005-94, Same Subject, J. E. Leatherman to R. W. Borchardt,
January 17, 1994

In Reference 1, the NRC asked question RAI 900.32 based on the PANTHERS Test Specification. GE responded to RAI 900.32 in Reference 2. The "as-built" test configuration of the facility is, however, somewhat different (exceptions) from that described in the PANTHERS Test Specification with regards to this RAI. Therefore, GE hereby provides a revised response to RAI 900.32 which is the appropriate response considering the exceptions taken to the PANTHERS Test Specification and the "as-built" facility.

Sincerely,

J. E. Leatherman
SBWR Certification Manager
MC-781, (408)925-2023

cc: M. Malloy, Project Manager (NRC) (2 attachments)
F. W. Hasselberg, Project Manager (NRC) (1 attachment)

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RAI Number: 900.32

GE Revised Response

It was necessary to limit the number of tubes instrumented with wall temperature sensors to five for several reasons. Given this constraint on the number of tubes, the locations of the instrumented tubes within the tube bundle were selected to represent the various external flow conditions which may be effected by adjacent tubes. The conditions represented can be described as follows:

TUBE LOCATION	REPRESENTING:
A 1	Corner tube, adjacent to only two other tubes.
A 5	End of the header, adjacent to three tubes.
R 1	Inside edge of header, adjacent to four tubes.
R 8	Outside edge of header, similar to R1 but flow pattern possibly different due to pool wall.
R 5	Center of the bundle, adjacent to six tubes.

It should be recognized that an exception to the GE Test Specification has been made for the above wall temperature measurement locations for the PCC Condenser provided for the PANTHERS test program. The exception has been reviewed and accepted by GE. The as-built locations of the tubes instrumented with inside and outside wall thermocouples differ from the Test Specifications as follows:

- A 1:** No change.
- A 5:** Changed to **A 4**. The Location is adjacent to **A 5**, so external flow conditions are similar. The changes was made to avoid excessive instrumentation on tube **A 5**, which has strain gages (and associated thermocouples) and accelerometers.
- R 1:** Deleted thermocouples on this tube. The thermocouples on **R 1** were deleted to reduce the overall number of channels required for the Data Aquisition System (DAS). Since the location of **R 1** and **R 8** are similar, no significantly different data will be lost.
- R 8** Changed to **Q 8**. Tube R8 has a pressure tap, which could interfere with the temperature measurements. The location of **Q 8** is adjacent to **R 8** and also in the outside row of tubes. There is no reason to expect a significantly different temperature distribution for the two locations.
- R 5:** Changed to **Q 5**. Moved for the same reason as **R 8**.