Pt 21 84-452
Ray Smith
Publicly Available

GENERAL ELECTRIC

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Treat as a Part 21 — I sent a copy to Bob Baer

September 7, 1984

MFN# 133-84

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, D.C. 20555

Copy sent to Grand Gulf SRI Wagner fenes 9/26

Attention: C. E. Rossi

Gentlemen:

SUBJECT: TELECON - CONDITION GERMANE TO SAFETY

Please find attached the memo of telecon to you on September 7, 1984. This telecon dealt with a condition germane to safety involving sensitized Recirculation System piping end caps provided by Taylor Forge (Houston). End caps from Taylor Forge (Houston) were provided for Grand Gulf 1 plus several foreign plants. This communication is intended to fulfill the GE commitment to inform the NRC of conditions of general safety interest which are not reportable under 10CFR Part 21.

Very truly yours,

Call RI now

G. B. Stramback
Safety Evaluation Programs Manager
BWR Standardization
Nuclear Safety and Licensing Operation

GBS:pes/110FF

Attachment

cc: PRC File
L. S. Gifford (GE-Bethesda)
G. G. Zech (NRC - Bethesda)
R. L. Baer (NRC - Bethesda)

IE19

MEMO OF TELECON

DATE: 9/7/84

TIME: 10:15

PERSON CALLING: G. B. Stramback

PERSON CALLED: C. E. Rossi

SUBJECT: GERMANE CONDITION - SENSITIZED RECIRCULATION SYSTEM PIPING END CAPS

Communicated via phone with Ernie Rossi of the NRC I&E Branch regarding notification of a Germane Condition on sensitized recirculation system piping end caps provided by Taylor Forge (Houston).

Stated that GE had completed evaluation of the Potentially Reportable Condition and had determined that it was not reportable since it did not constitute a substantial safety hazard. However, since it did involve a fabrication process deficiency in recirculation piping fabricated by a specific vendor, Taylor Forge (Houston), we felt that it was a subject of general interest which could have generic application beyond GE available information.

Background:

The concern is severe sensitization of 3 out of 4 16-in. recirculation system piping end caps at a foreign plant. End caps from the same heat of material provided by Taylor Forge were also provided to a second foreign plant. Taylor Forge also provided the end caps (not the same heat) to Grand Gulf and a third foreign plant. Further testing confirmed that the end caps at Grand Gulf 1 are also sensitized (end caps at Grand Gulf 2 have been replaced with 316 NG). The most likely cause of the sensitization is that the Taylor Forge heat treatment was not done properly (i.e., the cooling process was too slow). For this reason, it was concluded that the concern is limited to only those plants mentioned above which utilized Taylor Forge (Houston) end caps. The consequence of operating with sensitized material is that intergranular stress corrosion cracking (IGSCC) will eventually occur.

Predictions based on a conservative IGSCC model indicate that significant cracking would not be expected for 1½ to 2 years. In addition, if unexpected cracking did occur, it would signal itself as a detectable leak and as such would not compromise safety of the plant. The IGSCC issue is well known and the leak before break argument is still valid. However, IGSCC is obviously undesirable and GE has recommended appropriate action to both Grand Gulf and foreign customers to eliminate all sensitized material from the plants. The recommendations stipulate that the replacement be done at the earliest outage.

EJR:pes/110GG

cc: R. Villa
E. J. Romesberg
PRC File