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GENERAL  ELECTRIC

NUCLEAR POWER SYSTEMS DIVISION

GENERAL ELECTRIC COMPANY • 175 CURTNER AVENUE • SAN JOSE, CALIFORNIA 95125
MC 682, (408) 925-1913

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George Jare
Lank
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May 1, 1984

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

Attention:

~~Mr. Ernie Ross~~

SUBJECT:

TELECON - CONDITION GERMANE TO SAFETY

Please find the attached memo of our telecon of May 1, 1984. This telecon dealt with a condition germane to safety in involving Barton transmitters which are susceptible to drift if excited by continuous radio frequency interference.

Very truly yours,



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

GBS:cal:pc/K04263

cc: L. S. Gifford, GE-Bethesda
U. Potapovs, NRC Region IV

IE19

MEMO OF TELECON

DATE: May 1, 1984
TIME: 8:15 PDT
PERSON CALLING: G. B. Stramback/R. W. Strong
PERSON CALLED: Ernie Rossi
SUBJECT: CONDITION GERMANE TO SAFETY - BARTON TRANSMITTERS

Ernie Rossi was called in order to inform him of a condition germane to safety. This is a condition related to a basic component which exhibits drift when exposed to continuous radio frequency interference (RFI). However, this does not cause a substantial safety hazard in the GE application. He was informed of the equipment involved, the cause of the condition, the possible safety consequences and the plants involved.

The concern involves Barton transmitters, models 763 and 764 used for post-accident monitoring. During radiated RFI tests for the Hatch analog trip system, the transmitters drifted beyond specifications when exposed to continuous high levels of RFI. Special EMI/RFI filters were added to the Hatch units prior to shipment, and have been installed by Barton on all subsequent shipments. The filters effectively resolve the problem for transmitters shipped after June 1983. However, units were shipped to Duane Arnold, Cooper, Fitzpatrick and Peach Bottom prior to this date which therefore did not contain the corrected filters. These units were reviewed and found to be used exclusively in the Post-Accident Monitoring (PAM) system.

Though PAM is considered a safety related system, it controls displays but does not perform any automatic function. Therefore, device signal drifts would not create a substantial safety hazard. As further assurance, since the transmitters are analog devices and generate continuous signals for monitoring displays, the drift phenomenon only becomes significant during a continuous RFI transmission. The only known source of such RFI within the containment where the transmitters are located could be a walkie talkie left in the "transmit" mode for a continuous period; and very close to the Barton transmitter. Because the signal strength of the RFI decreases rapidly with distance, this low probability disturbance from a single walkie talkie would likely be limited to one transmitter; or one division at most. Engineering has confirmed the effectiveness of the RFI filters in resolving the problem. Filters are, or will be made available to those projects not having them in their original shipments.

The condition does not cause a substantial safety hazard and is judged as non-reportable per 10CFR21. However, General Electric considered this concern to be of generic safety interest to the NRC because of non-GE potential applications of the same device. It is thereby reported to the NRC as being germane to safety.