

The Foxboro Company

PDR
Docket 99900225

Foxboro, MA U.S.A. 02035-2099
Telephone 508-543-8750
Telex 927-602 or TRT 174090

21 December 1990

Mr. Kamalakar R. Naidu
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Naidu:

Enclosed please find a copy of the final version of our notification letter which was mailed on 19 December 1990, to only those Nuclear Utilities who are on record as having purchased this particular item from The Foxboro Company. These letters have been mailed in compliance with 10 CFR 21.21 (a) (1) (ii).

Yours truly,

S. Hasan Rizvi
SAR

S. Hasan Rizvi
Manager, Corporate Quality Assurance

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December 18, 1990

Mr. Buzz Carns
Director, Nuclear Operations
Arkansas Power & Light Company
R.R. 3, Box 137G
Russellville,, AR 72801

Attention: Mr. Buzz Carns
Director, Nuclear Operations

Subject: Potential problem during abnormal operation with SPEC
200 MICRO N-2CCA Controller Cards

Gentlemen:

This letter is to notify you that a problem may occur when SPEC 200 MICRO N-2CCA Controller Cards are simultaneously exposed to the following specific operating conditions:

1. Power interruptions of greater than one second and less than three seconds occur at the SPEC 200 MICRO N-2CCA Controller Card (power interruptions to the power supply providing the dc power to the Controller Card may be longer, depending upon the storage characteristics of the supply);
2. The processor on the Controller Card experiences a parity bit error upon re-energization;
3. The Output Flunk Option had not been set to Last Value.

Under this set of conditions, upon re-energization of power, the data base will be wiped from memory and the output of the Controller Card may not fail to the configured safe failure state but remain at its last value, regardless of the pre-selected Output Flunk Option.

In the last six years, in a population of over 7500 units, there has been one reported failure of a Controller Card, where the data base was wiped from memory. There has been a single occurrence recently at a nuclear site where the data base was wiped from memory and the output remained at the last value.

In view of the small number of occurrences we do not feel that this failure poses an immediate problem to operation. However, Foxboro is presently evaluating the root cause of this failure and is currently investigating an appropriate solution. We expect our evaluation to be completed in January, 1991 and a hardware or software modification to be available by April, 1991. You will be notified by separate letter as to the specifics involved to effect resolution.

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A General Electric Company

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In the meantime, Foxboro recommends that you review the application of SPEC 200 MICRO N-2CCA Controller Cards in your plant in regards to the occurrence of short-term power interruptions. If a power outage of 1 to 3 seconds does occur we recommend that each SPEC 200 MICRO Control Card in the affected system be viewed by maintenance personnel to ensure that a failure as described above has not occurred. This is easily checked by viewing the blinking Green LED (Stby) on the face of the Control Card. Recovery requires reloading the configuration from the Data Base Disc.

As noted above the number of failures during actual operation has been small - two reported in six years. While the failure can be reproduced in a test lab it typically requires multiple off-on power transients in a short period of time to induce a failure. The occurrence is unlikely in field applications as demonstrated by the lack of reported field failures. We do recommend that the modification be made to all of your Controller Cards. Foxboro will provide a Retrofit Kit as soon as it can be made available.

Our records indicate that you have purchased N-2CCA Cards from The Foxboro Company. Attached is a listing which contains your customer Purchase Order Number, our Foxboro Sales Order Number and the quantities purchased.

If there are any questions regarding this notification, please contact:

James T. Keiper
The Foxboro Company
(508) 549-6332

Very Truly Yours,

S. H. Rizvi
S. H. Rizvi *JWH*
Manager,

Corporate Quality Assurance

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