



# SPECTRUM TECHNOLOGIES

December 23, 1991

~~Director, Office of Nuclear Material  
Safety and Safeguards~~  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

DOCUMENT CONTROL DESK

**SUBJECT: NOTIFICATION OF EXISTENCE OF A DEFECT IN A COMPONENT**

Dear Sir:

In accordance with the requirements set forth in the Code of Federal Regulation 10 CFR Part 21, the following information is submitted:

1. Name and address of individual and company notifying the Commission:

Spectrum Technologies USA, Inc  
133 Wall Street  
Schenectady, NY 12305

President: Mr. Brij M. Bharteey  
or  
Quality Assurance Manager: Mr. William R. Willis

Telephone: (518) 382-056  
FAX: (518) 382-0283

2. Basic component supplied:

Yokogawa Programmable Indicating Controller  
YS-80 Series, Model SLPC (Style E)  
P/N SLPC 281E/MTS/NPR/HTB

3. Firm supplying the basic component:

Supplied by: Johnson Yokogawa Corporation  
4 Dart Road  
Shenandoah Industrial Park  
Newman, GA 30265-1040

Contact:

Mr. Gerald Gray  
Telephone: (404) 254-0400 Ext. 102  
FAX: (404) 251-6416

or

Mr. Martin Cohen  
Telephone: (215) 637-1700 Ext. 417

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Qualified by: Spectrum Technologies USA, Inc.  
133 Wall Street  
Schenectady, NY 12305

4. Nature of the defect:

The subject controller receives input from a Read Only Memory (ROM) imbedded in a chip that is plugged into the side of the unit. The design of the ROM chip socket is such that it captures the pins of the chip with spring pressure applied by wear plate blades. The material used for the wear plate blades does not display sufficient spring capabilities to adequately hold the ROM chip pins when the ROM is mounted in the socket. This condition does not assure adequate electrical contact between the pins and the socket resulting in the potential for an intermittent open circuit.

Symptoms of this problem are as follows:

1. The fail lamp lights and the check code "10", "00", "04" will be displayed.
2. Digital Input is not inputted, but an instrument operates as if inputted.
3. This trouble phenomenon differs according to the program in the ROM.

None of these symptoms were evident during the qualification testing performed by Spectrum Technologies USA, Inc.

5. Date on which the information on the defect was obtained:

The information regarding the defect was provided to Spectrum Technologies USA, Inc. in Johnson Yokogawa Corporation letter dated December 20, 1991. NRC Region 1 Office was advised on December 20, 1991 via telecon by Spectrum Technologies USA, Inc. Quality Assurance Manager.

6. Facilities/Utilities to which the basic component has been supplied:

Twenty six of the subject units have been supplied to Tennessee Valley Authority (TVA), Sequoyah Nuclear Plant.

7. Corrective action being taken:

TVA (Ms. Vickie Bishai) was notified via telephone on December 2, 1991 that Johnson Yokogawa was investigating a potential concern with the subject ROM socket. At that time she was advised that further information would follow when provided by Johnson Yokogawa. A followup telecon was conducted on

December 12, 1991 to advise Ms. Bishai that we were still waiting for confirming information from Johnson Yokogawa. On December 20, 1991 a Johnson Yokogawa letter was received by Spectrum Technologies USA, Inc. providing the needed confirmation and a description of the problem. TVA (Ms. Bishai) was advised via telecon, and requested to research whether plant operators would be aware of a digital input failure in any of the installed SLPC units (e.g., an alarm or light at the operators station). Ms. Bishai subsequently reported that the Sequoyah Nuclear Plant, in which the subject controllers are currently installed, is equipped with an "Auto-Manual System" that detects such problems and switches to manual mode, while concurrently advising the operator.

Johnson Yokogawa advises that improved design sockets are now available. Spectrum Technologies is currently coordinating with Johnson Yokogawa and TVA to orchestrate replacement of the effected sockets.

8. Advice related to the defect.

Johnson Yokogawa identifies this as an intermittent problem that may or may not manifest itself. Also, it is related to the total YS-80 series, not just the SLPC model identified in section 2, above.

If there are further questions or concerns, please contact me. Otherwise, I will keep you advised on further developments.

Very truly yours:



Brij M. Bharteey  
President

cc: Administrator, USNRC Regional Office I  
475 Allendale Road  
King of Prussia, PA 19406