GENERAL CELECTRIC

GENERAL ELECTRIC COMPANY, 41 WOODFORD AVENUE, PLAINVILLE, CONN. 06062 Phone (203) 747-7 CONTRACTOR EQUIPMENT BUSINESS OPERATIONS

September 12, 1983

Mr. Uldis Potapovs, Chief Vendor Program Branch U.S. Nuclear Regulatory Commission Region IV 611 Ryan Plaza Drive, Suite 1000 Arlington, Texas 76011

RE: DOCKET NO. 99900786/83-01

Dear Mr. Potapovs:



Your July 15, 1983, report of the recent inspection of our Plainville, Connecticut, facilities conducted by Mr. W. E. Foster of your office included an Unresolved Item relating to the application of a Silicon-Controlled Rectifier used in our Ground Break Relay product. Subsequent discussion with Mr. Foster indicated that he based his question of the application of the SCR on a comment included in meeting minutes reviewed by him during his inspection. In this meeting, a sales representative from General Electric Semiconductor Products Department stated that "he would not recommend an oxide passivated device for DC blocking application ... because the mechanism for channeling exists with all oxide passivated devices." This meeting was being held to discuss the deterioration in the DC blocking ability of devices supplied by the General Electric Company Semiconductor Products Department which led to the reporting of this situation in my June 15, 1982, letter to Mr. Richard C. DeYoung of the United Stated Nuclear Regulatory Commission.

The deterioration in the DC voltage blocking capability occurred in devices supplied by the General Electric Company. This problem was resolved by using only SCR's manufactured by Tag Semiconductors, ½dd., a subsidiary of Raytheon Company. There have been no reported instances of failures of Ground Break Relay devices as a result of deterioration of the DC blocking voltage characteristics of the Raytheon devices. Further, attached is a letter from Tag Semiconductors, Ltd., approving the use of this SCR in applications where it must block DC voltage up to 200 volts, when the junction temperature is not allowed to exceed 125°C, conditions substantially less than what the device is subjected to in the Ground Break Relay application.

We supply this additional information, including the endorsement by our supplier of the suitability of the subject SCR for use in our device, with the expectation that you can close out your files on the Unresolved Item included in your report.

Sincerely David J. Dixon, Manager Quality Assurance

8311280528 831117 PDR QA999 EMVGENE 99900786 PDR

clt/Attach. (2166P)

RAYTHEON

TAG SEMICONDUCTORS LIMITED

45 THIRD AVENUE BURLINGTON, MA 01803 TEL: 617-272-3704 CABLE: RAYTHEONEX, WALTHAM TELEX: 92-3456 TWX: 710-324-6568

RECEIVED

SEP 0 6 1983

August 30, 1983

D. J. DIXON

General Electric Company 41 Woodford Ave. Plainville CT 06062 Attn: Ronald Russell, Engineering Dept.

Re: DC blocking application using TAG planar SCR's.

Gentlemen:

We herewith confirm that we approve of using the TAG CR 103B and CR203B SCR's in DC blocking applications at 200V and Tj max. of 125° C. Long term stability tests have shown that there is no deterioration in the blocking ability of our planar devices at maximum rated blocking voltage and maximum rated junction temperature.

We hope this information is satisfactory to you.

Yours sincerely,

eter

Peter Tester Product Marketing and Sales Manager TAG Semiconductors Limited PT/cl