



GA Technologies

In Reply
Refer To: 67-8044

GA Technologies Inc.
P.O. BOX 85608
SAN DIEGO, CALIFORNIA 92138
(619) 455-3000

26 November 1985

Mr. Harold Denton
Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Docket 50-163: R-67; Request for Technical Specification Change
(19 copies).

Dear Mr. Denton:

GA Technologies Inc. (GA) has need to make a change to the subject reactor technical specifications to allow the uninterrupted continuation of a thermionic (direct conversion device) experiment now in progress. Currently, section 10.2.6 item (d) of the subject technical specifications limits the irradiation time for any one direct conversion device to not more than 10,000 hours. We need to extend the irradiation time beyond 10,000 hours in order to further test the devices under conditions more closely approaching those for which they were designed to perform. Therefore, we hereby request that Section 10.2.6(d) of our subject technical specifications be amended to read:

10.2.6(d). The irradiation time for any one device shall not exceed 20,000 hours.

The justification for amending the subject technical specifications to extend the allowable irradiation time for direct conversion devices from 10,000 to 20,000 hours is the following:

1. Each thermionic device being tested meets all the specifications set forth in Sections 10.2.6(b) and (c). Further, all the reactor and facility specifications set forth in Sections 10.2.6(e) through (h) shall be met.
2. All modes of failure are very unlikely as attested by the GA experience in the successful operation of many similar devices for well over ten thousand hours. Each device will be monitored as set forth in the Technical Specifications.
3. The major hazard from the fission product inventory involves the shorter half lives. The increase in their inventory is insignificant for irradiation times increased from 10,000 to 20,000 hours.

8512030181 851126
PDR ADOCK 05000167
P PDR

Handwritten:
A020
1/0
w/chuck
\$150
3201161

4. Historically, GA's Mark III TRIGA reactor (R-100 License) was licensed to allow individual thermionic device irradiation times of up to 20,000 hours and the simultaneous testing of as many as 15 devices.

GA concludes that there is no increase in the likelihood or consequences of hazards involved with the requested Technical Specification amendment.

Enclosed is a check for \$150 to cover the administrative fee.

We look forward to receiving the requested Technical Specification amendment at your earliest convenience. Should you have any questions regarding this matter, please contact me at (619) 455-2823.

Very truly yours,

Keith E. Asmussen

Keith E. Asmussen
Licensing Administrator

KEA:hc

Enclosure: Check for \$150.

cc: Dr. Cecil O. Thomas, NRC Headquarters.
R. E. Carter, NRC Headquarters.