

# GENERAL ELECTRIC

NUCLEAR ENERGY  
ENGINEERING  
DIVISION

GENERAL ELECTRIC COMPANY, P.O. BOX 460, PLEASANTON, CALIFORNIA 94566

October 27, 1980

Mr. Robert A. Clark  
Operating Reactors Branch #3  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Responses to Information Request Regarding the Fuel Flooding  
System Flow Rates - General Electric Test Reactor (GETR) -  
License TR-1 - Docket 50-70

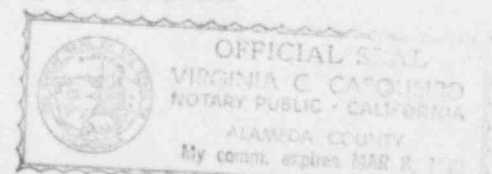
Reference: General Electric Company, "Response to NRC Order to Show Cause  
dated 10/24/77", November 11, 1977.

Dear Mr. Clark:

Attachment 3 of the referenced document is a summary of the evaluation of the thermal-hydraulic effects of the maximum postulated seismic event at the GETR. Case I in Attachment 3 is an evaluation of the effects of the maximum postulated seismic event on the reactor core during 50 MW operation. Case I shows the required makeup flows to be 0.74 gpm to the fuel storage tanks in the canal and 0.8 gpm\* to the reactor core. Case II is an evaluation of the effects of the maximum postulated seismic event on the reactor core and stored fuel during shutdown. Case II shows the required makeup flows to be 1.64 gpm to the fuel storage tanks in the canal and 0 gpm to the reactor core.

The case with the highest total flow rate requirement was then assumed to be the worst case. This flow rate was established as the minimum required. The final design of the Fuel Flooding System utilizes a single reservoir supply line (one from each of two redundant reservoir systems) to the containment building. Each line then splits with one line to the core and the other to the canal fuel storage tanks. The flow split will be constant and fixed to each fuel location. Consequently, the required Fuel Flooding System flow through each redundant line is the highest required flow in each case, or 1.64 gpm to the canal fuel storage tanks and 0.8 gpm to the core. The minimum total flow from each redundant reservoir system is 2.44 gpm. For conservatism,

\*The 0.8 gpm to the reactor core is the flow rate required if the standpipes discussed were added. These standpipes have been added.



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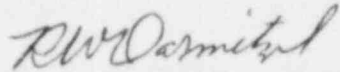
Mr. Robert A. Clark

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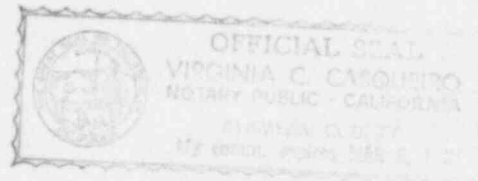
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plans are to establish the flow in each redundant line to the core at 4 gpm and 3 gpm to the canal fuel storage tanks.

Very truly yours,



R. W. Darnitzel, Manager  
Irradiation Processing Operation



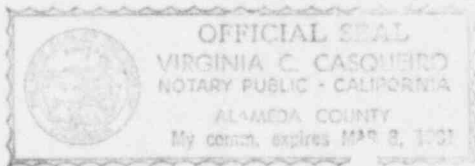
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attachment

AFFIRMATION

The General Electric Company hereby submits the "Responses to Information Request Regarding the Fuel Flooding System Flow Rates - General Electric Test Reactor (GETR).

To the best of my knowledge and belief, the information contained herein is accurate.



*RW Darnitzel*  
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R. W. Darnitzel, Manager  
Irradiation Processing Operation

Submitted and sworn before me this 27th day of October, 1980,

*Virginia C Casquero*, Notary Public in and for the  
County of Alameda, State of California.