

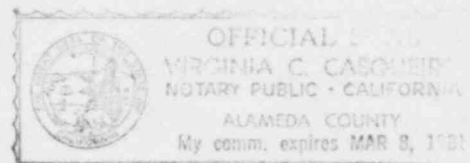
GENERAL ELECTRIC

NUCLEAR ENERGY
ENGINEERING
DIVISION

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

July 17, 1980

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



Subject: Investigation of the ability of the General Electric Test Reactor (GETR) to meet the loadings associated with the design basis specified in the Safety Evaluation Report of May 23, 1980. License TR-1 - Docket 50-70

Reference: Letter, Robert A. Clark to Robert W. Darmitzel dated June 10, 1980

Dear Mr. Clark:

Your June 10, 1980 letter requested additional information demonstrating the ability of the GETR, including all essential structures, systems and components, to meet the loadings associated with the design bases specified in the Safety Evaluation Report (SER) of May 23, 1980. Much of that information is included in reports previously submitted to the Nuclear Regulatory Commission. The attached response integrates the results produced in those and several recent analyses that have been done to show the facility meets the design bases noted in the May 23, 1980 Safety Evaluation Report.

The system requirements to mitigate the maximum postulated seismic event are few and relatively straightforward to accomplish. These have been described in previous submittals and are: the reactor must be shut down and kept down, and the fuel elements must be kept covered with water. The reactor is shut down by pendulum switches acting well in advance of consequential vibratory motion, and analysis shows the control rods to remain in the reactor through the design basis event. The fuel elements are kept covered with water by assuring integrity of the containers in which the fuel elements are located (reactor pressure vessel and canal storage tank) and by providing a water supply for the small amount of water makeup needed for boil off and evaporation. Modifications have been added (principally, piping restraints) to assure integrity of the reactor pressure vessel. A new canal storage tank designed to provide substantial physical protection and modifications to potential missile-generating equipment on the third floor of the reactor building assure the integrity of the canal storage tank. A new redundant water supply has been designed and partially constructed that assures water makeup for boil off and evaporation. The water in the

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Mr. Robert A. Clark

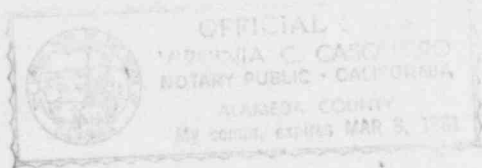
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July 17, 1980

pool and canal are not counted on for long-term supply, nor is the containment integrity a requirement. Analysis results, however, show the pool and canal to remain intact.

The information contained in the attached reports shows that the GETR, including all essential structures, systems and components, meets the loadings associated with the design bases specified in the May 23, 1980 Safety Evaluation Report. It is expected that a structural Safety Evaluation Report can be written and issued promptly.

Very truly yours,



R. W. Darmitzel, Manager
Irradiation Processing Operation

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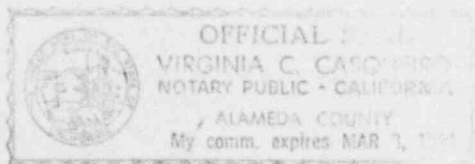
attachments

AFFIRMATION

The General Electric Company hereby submits the following six (6) reports (attached), titled:

- (1) Summary Report - Structural Seismic Investigations of General Electric Test Reactor, dated 8 July 1980.
- (2) Additional Investigations to Determine Effects of Vibratory Motions Due to an Earthquake on the Calaveras Fault, dated 30 April 1980 (Rev. 1 - 30 June 1980)
- (3) Expanded Description of Soil Pressure Analyses - Supplement No. 1 to Additional Investigations to Determine the Effects of Combined Vibratory Motions and Surface Rupture Offset Due to an Earthquake on the Postulated Verona Fault, dated 27 June 1980
- (4) Evaluations for 0.6g Ground Acceleration Case - Supplement No. 2 to Additional Investigations to Determine the Effects of Combined Vibratory Motions and Surface Rupture Offset Due To An Earthquake on the Postulated Verona Fault, dated 30 June 1980
- (5) Review of Seismic Adequacy of Piping and Equipment, General Electric Test Reactor, dated 30 June 1980
- (6) Combined Parameter Probability Analysis, General Electric Test Reactor, dated July 11, 1980

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



R. W. Darmitzel

R. W. Darmitzel, Manager
Irradiation Processing Operation

Submitted and sworn before me this 17th day of July, 1980.

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