



OFFICE OF THE
CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

September 7, 1979

Docket No. 50-70

Mr. Roy H. Beaton
Vice President and Group
Executive
Nuclear Energy Group
General Electric Company
175 Curtner Avenue
San Jose, California 95125

POOR
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Dear Mr. Beaton:

This is in response to your letter of May 31, 1979 regarding the length of time it has taken the NRC staff to review the geologic, seismic and structural issues associated with the ordered shutdown of the General Electric Test Reactor (GETR).

I agree that this period of time is significant and accordingly, requested that the staff provide a summary of the effort which has been placed on the subject review to date as well as the current schedule for completing the review and issuing a safety evaluation. The information provided to me by the staff is enclosed.

As you know an Atomic Safety Licensing Board (ASLB) has been assigned to rule on the issues of the Commission's Order of October 24, 1977. The ASLB's ruling may be subject to review by the Commission and therefore I have not reviewed the technical arguments surrounding the issues of the Order. Based on my evaluation of the information provided I am confident that the staff intends to complete its review as soon as possible.

Sincerely,

Joseph M. Hendrie
Chairman

Enclosure:
NRC Staff Review of GETR

cc w/enclosure: See next page

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General Electric Company

cc w/enclosure(s):
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Advisory Committee on Reactor
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U. S. Nuclear Regulatory Commission
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NRC Staff Review
General Electric Test Reactor
October 24, 1977 Order to Show Cause

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Statement of Issues

On October 24, 1977 the NRC issued an Order to Show Cause which required that the General Electric Test Reactor (GETR) be shut down and set forth the following issues:

- (1) What the proper seismic and geologic design bases for the GETR facility should be;
- (2) Whether the design of GETR structures, systems and components important to safety can be modified so as to remain functional considering the seismic design bases determined in issue (1) above;
- (3) Whether activities under Operating License No. TR-71 should be suspended pending evaluation of the foregoing.

NRC Staff Review Effort to Date

The redefinition of acceptable seismic and geologic parameters for the GETR facility has involved the review of ground acceleration, surface offset potential and landslide stability in the complex geologic setting of the GETR site. In addition, the licensee has proposed a number of modifications to enable the facility to withstand a postulated seismic event.

The staff effort to address these issues has involved more than eight site visits, nine meetings with the licensee and the review of many reports. Seven branches in the Office of Nuclear Reactor Regulation have taken part in this review totaling more than 5,200 man-hours on this assignment. In addition, the staff has been aided by two consultants in its seismic/geologic review and one in its structural engineering review.

On August 9, 1978 the staff met with the licensee to discuss the staff's position regarding acceptable GETR seismic and geologic parameters based on the information available at that time. These parameters were documented in a draft safety evaluation report dated August 17, 1978, and were in excess of those proposed by the licensee. Subsequent to that meeting and prior to the intended issuance of the staff's safety evaluation, the licensee proposed an extensive geologic investigation of the site. The results of this investigation were submitted in the report "Geologic Investigation-Phase II, General Electric Test Reactor Site, Vallecitos, California". The staff completed its review of this report and by letter to the licensee dated June 8, 1979 noted areas which had not been adequately addressed. The licensee's response to these questions as well as the licensee's probability analysis regarding surface offset under the GETR facility are currently being reviewed. In addition, questions regarding the GETR structural design have not yet been responded to by the licensee.

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Current Schedule for Completion

The staff currently expects to issue its safety evaluation of GETR, with respect to the proper seismic and geologic design bases, in September 1979. This evaluation will be based on the information currently available.

The licensee expects to complete the response to the structural design questions in September. Based on this submittal date the staff should issue its safety evaluation regarding the structural design of GETR by the beginning of November 1979.

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GENERAL ELECTRIC
GENERAL ELECTRIC COMPANY
175 CURTNER AVENUE
SAN JOSE, CALIFORNIA 95125

ROY H. BEATON
VICE PRESIDENT AND GROUP EXECUTIVE
NUCLEAR ENERGY GROUP

May 31, 1979

POOR
ORIGINAL

The Honorable Joseph M. Hendrie, Chairman
U. S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D. C. 20555

Dear Mr. Chairman:

In October, 1977, our General Electric Company's Test Reactor (GETR) at Vallecitos, California was ordered to be shut down by the Nuclear Regulatory Commission (NRC). The reason given for the shutdown was a postulated thrust fault near the reactor, giving rise to concerns about possible structural damage following a maximum future seismic event. The GETR has long been a major supplier of medical isotopes and a primary facility for testing nuclear fuel developments.

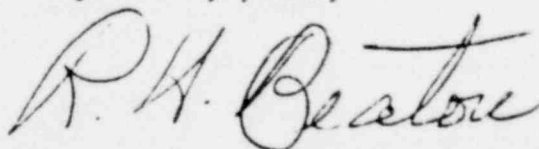
Since then, during 1977 and 1978, the NRC Staff has agreed several times to complete and issue the Safety Evaluation Report (SER), but the completion date has continuously slipped. In order to dispel some of the uncertainty, in August of 1978 GE initiated a massive geologic investigation of the GETR site and surrounding area. After months of numerous meetings and site visits, the NRC Staff committed to issue the SER within sixty days after submission of the final geologic study report by GE. GE submitted this geologic study report on March 5, 1979. Unfortunately, however, the Staff has still failed to issue the SER.

More recently, the Staff committed to issue all questions by April 5. Again, however, no formal questions have been produced as yet, despite several GE follow-up requests. On May 23, we were advised that the SER now will not be issued before August 1.

Meanwhile, we in GE have voluntarily made extensive and expensive modifications to the GETR facility, in order to meet revised and much more conservative design bases. This extended shutdown has caused significant hardship to many of our employees and disruption of important GE fuel development programs. Our previous position as one of the world's leading suppliers of medical isotopes is now probably irretrievably lost.

In summary, we believe the NRC Staff's inaction in unduly prolonging and postponing the SER completion and issuance to be a grave injustice. We further understand that you, as NRC Chairman, have the authority to order the Staff's review to be expeditiously concluded. We respectfully request that you do so.

Respectfully yours,



R. H. Beaton

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GE test reactor near fault, says report

By NORM HANNON
Science Writer

The U.S. Geological Survey, intimating sloppy work by General Electric's consulting geologists, has stuck to its original finding that the General Electric Test Reactor near Pleasanton does indeed lie only 200 feet from an active earthquake fault.

The reactor was ordered shut down last fall after the USGS said the Verona fault apparently ran next to the reactor, rather than 2,000 feet to the north, and after the consultants confirmed by trenching that there was an irregularity.

In a report to the U.S. Nuclear Regulatory Commission, which must decide whether to let GE reactivate the reactor, the USGS geologists dismissed the contention by the consultants, Earth Science Associates, that the irregularity is only an ancient landslide.

"The arguments for landsliding are largely assertive and are based on information that is not provided or documented in this (the consultant's) report.

"None of the information in the report documents the occurrence of a very large ancient landslide

in the vicinity," USGS geologists Earl Brabb, Darrell Herd and Robert H. Morris said.

In fact, the government scientists said, some of the standard tools for fault investigation were not employed, such as magnetic surveys, electrical resistivity surveys, or studies of ground water movement.

"As to whether the evidence for faulting has been thoroughly and fairly investigated, it should be pointed out that the two trenches opened along the mapped trace of the Verona fault at localities

more than two miles apart, chosen by the consultants, both revealed geologically young thrust faulting.

"Most of the field work that was done subsequently by ESA appears to have been concentrated on a landslide investigation," the USGS said.

After an investigation by Herd last year, the Verona fault was remapped running past the reactor and across the road in front of the GE facility.

The investigators said there is ample evidence of faulting noted

by the builders of an aqueduct, the Las Costa Tunnel, across the road from GE.

The USGS also documents new evidence of slippage along the Las Positas fault near Sandia Laboratories in Livermore. Trenches were dug there within the past six months.

The report notes the likelihood that the Verona fault, next to the Vallecitos reactor, and the Las Positas fault are linked, so that a major earthquake on one would also occur along the other. Both are branches of the giant Calaveras fault, which lies 100 miles away.

veras fault, which lies 100 miles away.

The USGS says that if the company can make a trench a section of the Verona fault that is free of landslides. Also, it should look for a physical connection between the Las Positas and Verona faults, which is very likely an extension of the other. There are a number of other things the USGS says the consultants overlooked.

The NRC has put the reactor on the reactor shutdown list in July and it now appears that a full public hearing on the reactor may not be held until next year.

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FRIENDS OF THE EARTH

124 SPEAR SAN FRANCISCO CALIFORNIA 94105

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POOR
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June 6, 1979

The Honorable Joseph M. Hendrie, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chairman:

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We write in response to a letter dated May 29, 1979 from R. H. Beaton, General Electric Company (GE) to you, indicating GE's displeasure that NRC staff has not completed its safety evaluation report on the General Electric Test Reactor (GETR). Friends of the Earth is an intervenor in the GETR proceedings (NRC Docket Nos. 50-70, 70-754).

In light of GE's behavior to date in this case, GE's complaints are outrageous. GE refused for some time to dig the trenches suggested by the NRC and United States Geological Survey (USGS) geologists studying the GETR site. GE instead produced a geologic report on the GETR which claimed that the earthquake fault near which the GETR sits does not exist. This report was thoroughly discredited by USGS; a news account is attached for your information.

The delayed trenching confirmed the existence of the fault, indeed, some geologists at the trenches suggested the earthquake fault features revealed in the trenches were "classic", and should be photographed and included in geology textbooks. The trenches also uncovered a second earthquake fault near the GETR. The difficulty of writing the safety evaluation report, which must be in effect a detailed prediction of the damage done to the GETR by a major earthquake, is not hard to understand in light of the enormous complexity of the seismic situation revealed by the trenches.

We note also that during the course of the GETR case, it was publicly revealed that GE had produced groundwater radioactivity readings near the GETR only from points upstream from where GE dumps its radioactive waste water. When the downstream groundwater was checked by James Levine of the California Regional Water Quality Control Board, samples were found to be contaminated with radioactive tritium far above the federal drinking water standard of 20,000 piccuries per liter.

In light of these disclosures, NRC staff may be treating all of GE's information about the GETR, correctly, as hopelessly unreliable. This may account for the difficulty of preparing the safety evaluation report.

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Page 2

The Honorable Joseph M. Hendrie, Chairman
U.S. Nuclear Regulatory Commission

We trust, Mr. Chairman, that you will not pressure the NRC staff, as suggested by GE, to rush to judgment about the GETR. The futures of many thousands of people in the San Francisco Bay Area could be compromised by such an unconsidered NRC staff report.

Respectfully,

W. Andrew Baldwin

W. Andrew Baldwin
Legal Director

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