GE Nuclear Energy

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March 23, 1990

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U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Attention: Document Control Desk

Reference: License TR-1, Docket 50-70

Gentlemen:

Enclosed are three signed copies of Annual Report No. 31 for the General Electric Test Reactor.

Sincerely,

D.E. G. E. Cunningham

Senior Licensing Engineer (415) 862-4330

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Enclosures

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# GENERAL ELECTRIC TEST REACTOR (DEACTIVATED)

ANNUAL REPORT NO. 31

LICENSE TR-1 DOCKET 50-70

NUCLEAR OPERATIONS . GENERAL ELECTRIC COMPANY VALLECITOS NUCLEAR CENTER, PLEASANTON, CALIFORNIA 94566

## GENERAL ELECTRIC TEST REACTOR (DEACTIVATED)

#### ANNUAL REPORT NO. 31

The General Electric Company has maintained the General Electric Test Reactor (GETR) in a deactivated status under the authority of Amendment No. 14 to License TR-1, Docket 50-70, issued February 5, 1986. This annual report summarizes the status of the facility for the period January 1, 1989, to December 31, 1989, as required by Technical Specification 6.6.1 to License TR-1.

#### I. SUMMARY

The facility remains in essentially the same condition described in Annual Report No. 30. Entry into the reactor building was made for routine radiation surveys and a general check of conditions throughout the building.

### II. STATUS

#### A. <u>Maintenance</u>

There were no major preventive or corrective maintenance activities having safety significance performed during 1989.

#### B. Changes

There were no changes authorized by the Facility Manager pursuant to 10CFR50.59(a) and completed in 1989.

### III. RADIATION LEVELS AND SAMPLE RESULTS AT ON- AND OFF-SITE MONITORING STATIONS

The data below are from sample and dosimeter results accumulated during 1989. Except for the GETR stack data, these data are for the entire VNC site and include the effects of operations other than the GETR.

#### A. GETR Stack

Total airborne releases (stack emissions) for 1989 are as follows.

Alpha Particulate, < 0.163  $\mu$ Ci (predominantly radon-thoron daughter products) Beta-Gamma Particulate, < 1.70  $\mu$ Ci

# B. Air Monitors (Yearly average of all meteorological stations.)

Four environmental air monitoring stations are positioned approximately 90 degrees apart around the operating facilities of the site. Each station is equipped with a membrane filter which is changed weekly and analyzed for gross alpha and gross beta-gamma.

Alpha Concentration:

Maximum	<	5.7	x	10-15	µCi/cc
Average	<	3.1	x	10-15	uCi/cc

(predominantly radon-thoron daughter products)

Beta Concentration:

laximum	<	5.4 x 10 14	µCi/cc
verage	<	2.33 x 10 <sup>-14</sup>	µCi/cc

C. Gamma Radiation

The yearly dose results for the year 1989 as determined from evaluation of site perimeter TLD environmental monitoring dosimeters showed readings within background.

D. Vegetation

No alpha, beta or gamma activity attributable to activities at the GETR facility was found on or in vegetation in the vicinity of the site.

E. Off-Site

Samples taken off the site indicate normal background for the area.

IV. CONCLUSION

The conditions at the GETR reflect a year of safe shutdown conditions.

GENERAL ELECTRIC COMPANY Irradiation Processing

By

. W. Titus, Manager Reactor Operations & Support Services