



HITACHI

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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Subject: Annual Report for GETR, 2012

Reference: License TR-1, Docket 50-70

Enclosure: Annual Report No. 54

Enclosed is the Annual Report No. 54 for the deactivated General Electric Test Reactor (GETR), located at Vallecitos Nuclear Center near Sunol, California.

If there are any questions, or additional information required, please contact me at the number above.

Sincerely,

Anthony E McFadden
Manager, Vallecitos Nuclear Center

Cc: John Buckley, NRC (by e-mail)
Robert Evans, NRC Region IV (by e-mail)

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GE Hitachi Nuclear Energy

*Vallecitos Nuclear Center
Sunol, California*

**GENERAL ELECTRIC TEST REACTOR
(DEACTIVATED)**

**ANNUAL REPORT NO. 54
FOR THE YEAR 2012**

**LICENSE TR-1
DOCKET 50-70**

MARCH 2013

**General Electric Test Reactor
(Deactivated)**

ANNUAL REPORT NO. 54

GE Hitachi (GEH) has maintained the General Electric Test Reactor (GETR) in a deactivated status under the authority of Amendment No. 17 to License TR-1, Docket 50-70, issued October 22, 2007. In this annual report, a summary of the status of the facility for the period of January 1, 2012 to December 31, 2012 is presented.

1.0 SUMMARY

The facility remains in essentially the same condition described in Annual Report No. 53. Entry into the reactor building was made for routine radiation surveys and a general examination of conditions throughout the building. The crane, elevator, and ventilation were serviced and tested in 2011 in anticipation of beginning remediation activities. Such activities have not begun.

Radiation and contamination levels remain at acceptable levels.

2.0 STATUS OF FACILITY

In accordance with written procedures, the Facility Manager controls access to the containment building and general systems. The facility continues to be in deactivated status. There were no changes authorized by the Facility Manager pursuant to 10CFR50.59(a) in 2012.

3.0 RADIATION AND CONTAMINATION

Complete radiation and contamination surveys of the facility indicate that levels remain low. Results of the surveys are presented in Table 1. The radiation/contamination levels listed are representative but not necessarily maximum values.

The data below are from sample and dosimeter results accumulated during 2012. These data are for the entire VNC site and include the effects of operations other than GETR.

3.1 GETR Stack

Although maintenance was performed on the stack in 2011, and the stack was tested, there has been no remediation effort performed for the GETR reactor. The ventilation system is not yet fully operational, and the stack air flow has not been calibrated. Thus no concentration data is available for 2012.

3.2 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 that is changed weekly and analyzed for gross alpha and gross beta-gamma.

Alpha Concentration:

Weekly Maximum,	$9.21 \times 10^{-14} \mu\text{Ci/cc}$
Weekly Average,	$2.09 \times 10^{-14} \mu\text{Ci/cc}$

Beta Concentration:

Weekly Maximum,	$4.10 \times 10^{-14} \mu\text{Ci/cc}$
Weekly Average,	$7.78 \times 10^{-15} \mu\text{Ci/cc}$

3.3 Gamma Radiation

The yearly dose results for the year 2012 as determined from evaluation of site perimeter environmental monitoring dosimeters showed no departure from normal stable backgrounds.

3.4 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.

3.5 Off-Site

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

4.0 ACTIVITIES

Routine inspections were conducted during this report period. There were no

preventive or corrective maintenance activities performed having safety significance during the reporting period.

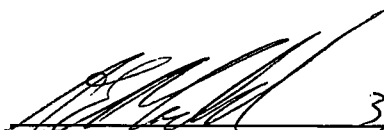
5.0 ORGANIZATION

The organizational structure changed during 2012. The Site Manager remains A. E. McFadden. The VBWR Facility Manager remains M. R. Schrag. The Manager, Regulatory Compliance and EHS is now E. F. Saito.

6.0 CONCLUSION

GE Hitachi Nuclear Energy concludes that the deactivated GETR is being maintained in a safe shutdown condition. The inspections, access control, and administratively controlled activities ensure maximum protection for the public health and safety. The procedures will be continued to maintain this high level of protection.

GE Hitachi Nuclear Energy
Vallecitos Operations



3/25/13

A. E. McFadden
Manager Vallecitos Nuclear Center

Table 1
Radiation and Contamination Level Data
General Electric Test Reactor (Deactivated)

Report Year	Contamination Levels					
	Radiation Levels (mR/h beta- gamma)		Surface Smears Beta-Gamma (dpm/ft ²)*		Airborne Beta-Gamma ¹ ($\mu\text{Ci/cc} \times 10^{-10}$) (decayed)	
	2011	2012	2011	2012	2011	2012
Reactor Enclosure						
Canal	2	1.5	2,000	4000		
3 rd Floor Zone	1.4	1.5	357	7500		
3 rd Floor Clean Area	<1	<1	250	150		
Top of Missile Shield (Point A)	<1	<1	9	150	0.02	0.12
2 nd Floor	9	60	250	<50		
2 nd Floor Clean Area	1	1	250	<50		
1 st Floor Zone	2	2	750	95,000		
1 st Floor Clean Area	1	<1	83	100		
Basement, Rod Work Area	25	60	200	250	0.006	0.25
Basement Clean Area	1	1	250	125		

Note:

*Radiation levels, surface smears, and air samples may vary from survey to survey as they are taken in general areas rather than at specific locations.

Survey Dates:

2011 - 12/17/2011

2012- 12/19/2012

¹ 24-hour decayed values