GE Energy

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U.S. Nuclear Regulatory Commission
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Subject: Annual Report for VBWR, 2004
Reference: License DPR-1, Docket 50-18
Enclosure: Annual Report No. 40 (3 copies)

Enclosed are three signed copies of Annual Report No. 40 for the deactivated Vallecitos Boiling Water Reactor (VBWR) located at Vallecitos Nuclear Center near Sunol, California.

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

Sincerely Yours,

Digitally signed by David W. Turner
Date: 2005.03.10 12:19:00 -08'00'
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GE Nuclear Energy

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VALLECITOS BOILING WATER REACTOR
(DEACTIVATED)

ANNUAL REPORT NO. 40
FOR THE YEAR 2004

LICENSE DPR-1
DOCKET 50-18

FEBRUARY 2005

Vallecitos Boiling Water Reactor
(Deactivated)

Annual Report No. 40

General Electric Company has maintained the Vallecitos Boiling Water Reactor (VBWR) in a deactivated status under the authority of Amendment No. 19 to License DPR-1, Docket 50-18. In this annual report, a summary of the status of the facility for the period of January 1, 2004 to December 31, 2004 is presented, as required by paragraph 5.d.2 of the license.

1.0 SUMMARY

The facility remains in essentially the same condition described in Annual Report No. 39. Entry into the containment building was made for routine radiation surveys and a general examination of conditions throughout the building. The water level within the reactor vessel was monitored and remained essentially constant throughout the report period.

Radiation levels remain essentially unchanged.

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.

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.

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 remained the same, the Vallecitos Nuclear Center (VNC) Site Manager was changed from L.M. Quintana to S. A. Bump, effective February 23, 2004. The VBWR Facility Manager was changed from F. A. Arlt to C. W. Bassett, January 1, 2004

6.0 CONCLUSION

The General Electric Company concludes that the deactivated VBWR 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.

GENERAL ELECTRIC COMPANY
Vallecitos Operations

C. W. Bassett, Manager
Facilities Maintenance and QA

Table 1
Radiation and Contamination Level Data
Vallecitos Boiling Water Reactor (Deactivated)

			Contamination Levels			
			Surface Smears Beta-Gamma*		Airborne Beta-Gamma†	
	Radiation Levels (mR/h Gamma)		(cpm/ft² x 10^3)		(μCi/cc x 10^{-10})	
Date of Measurement:	12/03	12/04	12/03	12/04	12/03	12/04
Reactor Enclosure, Main Floor						
General	<1.0	<1.0	0.2	0.15	0.006	0.02
Top of Spent Fuel Pit Cover	<1.0	<1.0	0.1	0.2	0.009	0.01
Reactor Basement					0.021	0.005
Upper Level, Field	1.0	1.0	--	--	--	--
West Ladder, Bottom	10	10	0.3	0.3	--	--
East Ladder, Bottom	1.5	1.4	0.1	0.2	0.002	0.005
Between Recirculation Pumps (located 2 feet above deck)	2.0	2.5	--	--	--	--

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.

* For conversion to d/m, assume an instrument efficiency of 20%.
† 24-hour decayed values