

GE Energy

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Subject: Annual Report for VBWR, 2003  
Reference: License DPR-1, Docket 50-18  
Enclosure: Annual Report No. 39 (3 copies)

Enclosed are three signed copies of Annual Report No. 39 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,



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**GE Nuclear Energy**

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Vallecitos Nuclear Center  
General Electric Company  
Sunol, California

**VALLECITOS BOILING WATER REACTOR  
(DEACTIVATED)**

**ANNUAL REPORT NO. 39  
FOR THE YEAR 2003**

**LICENSE DPR-1  
DOCKET 50-18**

**MARCH 2004**

## **Vallecitos Boiling Water Reactor (Deactivated)**

### **Annual Report No. 39**

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, 2003 to December 31, 2003 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. 38. 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 management and operations organization for the VBWR is described in Technical Specification 6.1 (Figure 1) of License DPR-1. The organizational structure remained the same, the Level 1 manager was L.M. Quintana.

## 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



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C. W. Bassett, Manager  
Facilities Maintenance and QA

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

Date of Measurement:	Contamination Levels					
	Radiation Levels (mR/h Gamma)		Surface Smears Beta-Gamma* (cpm/ft <sup>2</sup> x 10 <sup>3</sup> )		Airborne Beta-Gamma† (µCi/cc x 10 <sup>-10</sup> )	
	12/02	12/03	12/02	12/03	12/02	12/03
Reactor Enclosure, Main Floor						
General	<1.0	<1.0	0.4	0.2	0.007	0.006
Top of Spent Fuel Pit Cover	<1.0	<1.0	0.2	0.1	0.008	0.009
Reactor Basement					0.012	0.021
Upper Level, Field	1.0	1.0	--	--	--	--
West Ladder, Bottom	10	10	0.2	0.3	--	--
East Ladder, Bottom	2.0	1.5	0.2	0.1	0.011	0.002
Between Recirculation Pumps (located 2 feet above deck)	9.0	2.0	--	--	--	--

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