# VALLECITOS BOILING WATER REACTOR ANNUAL REPORT NO. 20

(DEACTIVATED)

DOCKET 50-18

NUCLEAR FUEL ENGINEERING DEPARTMENT • GENERAL ELECTRIC COMPANY VALLECITOS NUCLEAR CENTER, PLEASANTON, CALIFORNIA 94566



#### Vallecitos Boiling Water Reactor Annual Report No. 20

(Deactivated)

The status of the Vallecitos Boiling Water Reactor (VBWR) during the calendar year of 1384 is described in this twentieth report of the deactivated facility in conformance with License DPR-1, Docket 50-18, Amendment 19, Paragraph 5.d.2.

#### I. SUMMARY

The facility remained essentially in a static condition as described in Annual Report No. 19. Entry into the containment building was made for routine radiation surveys and for a check of general conditions throughout the building to verify the unchanged condition of the facility. The reactor vessel water level was monitored and remained essentially constant.

#### II. STATUS OF THE FACILITY

### A. Containment Building

No changes were made during the report period.

### B. General Systems

No changes were made during the report period.

#### III. PERIODIC INSPECTIONS

Inspections of the facility were continued on a routine basis. The annual air samples and radiation and contamination surveys of the containment building are given in Table 1 of this report.

#### IV. RADIATION AND CONTAMINATION

Radiation and contamination surveys of the facility indicate the levels in all cases were well below the limits for any safety concern.

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#### V. ORGANIZATION

There were no changes in organization.

#### VI. CONCLUSION

In our opinion, the deactivated Vallecitos Boiling Water Reactor continues to be maintained in a safe condition, commensurate with its shutdown status. The methods of inspection and control of safety-related items ensure maximum protection for the public and the General Electric Company.

GENERAL EXCERIC COMPANY

Irradiation Processing Operation

Q.W. Titus, Manager

Engineering and Support Services

TABLE 1. Radiation and Contamination Report

	Radiation Levels		Contamination Levels			
			Surface Smears Beta-Gamma		Airborne Beta-Gamma	
Reactor Enclosure	(mR/h 12/83	12/84	(c/m/100 12/83	$\frac{\text{cm}^2 \times 10^3)}{12/84}$	(μCi/cc : 12/83	$\frac{10^{-10}}{12/84}$
Main Floor - General Field	<1	<1	2.0	<0.1	0.049*	0.011*
<ol> <li>Top of Missile Shield, Field</li> <li>Top of Spent Fuel Pit Cover</li> <li>Pit (Down 3 ft)</li> </ol>	<1 <1 <1	<1 1 1.5	1.7 <0.1 NA	<0.1 <0.1 0.2	NA NA NA	NA NA NA
Reactor Basement						
<ol> <li>Upper Level, Field</li> <li>Bottom Wall, Ladder</li> <li>East Ladder, Bottom</li> <li>West Ladder, Bottom</li> <li>Between Recirculation Pumps         <ul> <li>(2 ft Off Deck)</li> </ul> </li> </ol>	15 10 20 25 20	15 15 10 25 20	NA 1.2 3.0 1.0 NA	NA 0.25 <0.1 <0.1 NA	NA NA NA 0.723*	NA NA NA 0.15*
6. RCP No. 1 Surface 7. RCP No. 2 Surface 8. Downcomers 9. Downcomers Behind Reactor Shield	80 60 50 50	80 60 25 25	6.0 28.0 3.5 30.0	2.0 19.0 1.5 1.5	NA NA NA	NA NA NA
10. Main Stea Line	4	7	2.5	1.0	NA	NA
Enclosure Stack - Outside Surface	<1	<1	<0.1	<0.1	NA	NA
Main Valve Pit _ines and Valves	<1	<1	<0.1	<0.1	NA	NA

NA indicates readings not taken or not analyzed. \*24-hour decay.

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

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# NUCLEAR ENERGY BUSINESS OPERATIONS GENERAL ELECTRIC COMPANY ● VALLECITOS NUCLEAR CENTER ● PLEASANTON, CALIFORNIA 94566

January 8, 1985

Dr. H. R. Denton, Director Office of Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Reference: License DPR-1, Docket 50-18

Dear Dr. Denton:

Enclosed are three signed and nineteen conformed copies of Annual Report No. 20 for the Vallecitos Boiling Water Reactor (Deactivated).

Sincerely,

X. E. C

G. E. Cunningham

Senior Licensing Engineer

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