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March 28, 2008

Subject: Annual Report for EVESR, 2007
Reference: License DR-10, Docket 50-183
Enclosure: Annual Report No. 40

Enclosed is the Annual Report No. 40 for the deactivated ESADA-Vallecitos Experimental Superheat Reactor (EVESR) 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 Yours,

Date: 2008.03.28
11:35:55 -07'00'

LaTonya L. Mahlahla
Mgr., Regulatory Compliance & EHS

cc: John Buckley (email)



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GE Hitachi Nuclear Energy

*Vallecitos Nuclear Center
Sunol, California*

**ESADA-VALLECITOS EXPERIMENTAL
SUPERHEAT REACTOR
(DEACTIVATED)**

**ANNUAL REPORT NO. 40
FOR THE YEAR 2007**

**LICENSE DR-10
DOCKET 50-183**

MARCH 2008

**ESADA-Vallecitos Experimental Superheat Reactor
(Deactivated)****Annual Report No. 40**

General Electric Company has maintained the ESADA Vallecitos Experimental Superheat Reactor (EVESR) in a deactivated status under the authority of Amendment No. 3 to License DR-10, Docket 50-183, issued June 11, 1976. In this annual report, a summary of the status of the facility for the period of January 1, 2007 to December 31, 2007 is presented, as required by paragraph 3.E.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. In accordance with written procedures, the Facility Manager controls access to the containment building.

Radiation levels remain essentially unchanged.

2.0 STATUS OF FACILITY

The facility continues to be in deactivated status. The plugs to the reactor vessel and head storage shield, the wooden cover over the fuel storage pool, and the locked covers for the personnel and equipment hatchways remain in-place except during maintenance or inspection activities.

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.



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5.0 ORGANIZATION

The management and operations organization for the EVESR is described in Technical Specification IX of License DR-10. The organizational structure has not changed since the last report. The Site Manager was D. W. Turner. C. W. Bassett was the EVESR Facility Manager.

6.0 CONCLUSION

GE Hitachi Nuclear Energy concludes that the deactivated ESADA-Vallecitos Experimental Superheat Reactor 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

A handwritten signature in black ink, appearing to read 'C. W. Bassett'.

C. W. Bassett, Manager
Facilities Maintenance & QA



Table 1
Radiation and Contamination Level Data
ESADA-Vallecitos Experimental Superheat Reactor (Deactivated)

Date of Measurement:	Contamination Levels					
	Radiation Levels (mR/h Gamma)		Surface Smears Beta-Gamma ¹ (cpm/ft ²)		Airborne Beta-Gamma ² ($\mu\text{Ci/cc} \times 10^{-10}$)	
	12/06	12/07	12/06	12/07	12/06	12/07
Reactor Enclosure						
Top of spent fuel pool (main floor)	0.5	<1	200	300	--	--
549-ft level (main floor)	<1	<1	300	250	.009	.003
534-ft level	<1-2	<1-1.5	2000	100	--	--
519-ft level	<1-2	<1-2	200	300	.024	.003
503-ft level (maximum pipe reading)	0.5	<1	700	2000	--	--
487-ft level (basement)	<1-1.5	<1	500	1000	.024	.004

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.

¹ For conversion to d/m, assume an instrument efficiency of 20%.

² 24-hour decayed values