



GE Energy

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March 30, 2004

File Copy DWT-2004-15

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Annual Report for EVESR, 2003  
Reference: License DR-10, Docket 50-183  
Enclosure: Annual Report No. 36 (3 copies)

Enclosed are three signed copies of Annual Report No. 36 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 below.

Sincerely Yours,

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**GE Nuclear Energy**

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*Vallecitos Nuclear Center  
General Electric Company  
Sunol, California*

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

**ANNUAL REPORT NO. 36  
FOR THE YEAR 2003**

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

**MARCH 2004**

**ESADA-Vallecitos Experimental Superheat Reactor  
(Deactivated)**

**Annual Report No. 36**

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, 2003 to December 31, 2003 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. 35. Entry into the containment building was made for routine radiation surveys, a general examination of conditions throughout the building, and a maintenance project. 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.

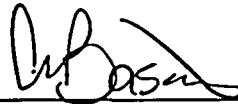
## 5.0 ORGANIZATION

The management and operations organization for the EVESR is described in Technical Specification IX of License DR-10. The organizational structure remained the same, the Site Manager during 2003 was L.M. Quintana.

## 6.0 CONCLUSION

The General Electric Company 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.

GENERAL ELECTRIC COMPANY  
Vallecitos Operations



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C. W. Bassett, Manager  
Facilities Maintenance & QA

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

| Date of Measurement:                | Radiation Levels<br>(mR/h Gamma) |        | Contamination Levels  |       |  |       |
|-------------------------------------|----------------------------------|--------|---|-------|--|-------|
|                                     |                                  |        | Surface Smears<br>Beta-Gamma <sup>*</sup><br>(cpm/ft <sup>2</sup> ) |       | Airborne<br>Beta-Gamma <sup>†</sup><br>( $\mu\text{Ci/cc} \times 10^{-10}$ ) |       |
|                                     | 12/02                            | 11/03  | 12/02   | 11/03 | 12/02  | 11/03 |
| <b>Reactor Enclosure</b>            |                                  |        |   |       |  |       |
| Top of spent fuel pool (main floor) | <1                               | <1     | --  | 400   | --   | --    |
| 549-ft level (main floor)           | <1                               | <1     | 500   | 400   | 0.035  | 0.026 |
| 534-ft level                        | <1-1.5                           | <1-1.5 | --  | --    | --   | --    |
| 519-ft level                        | <1                               | <1     | --  | 700   | 0.027  | 0.008 |
| 503-ft level (maximum pipe reading) | <1                               | <1     | --  | 200   | --   | --    |
| 487-ft level (basement)             | <1                               | <1     | --  | 300   | 0.025  | 0.046 |

**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