

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 70-754/82-02
Docket No. 70-754 License No. SNM-960 Safeguards Group 1
Licensee: General Electric Company
Vallecitos Nuclear Center
P. O. Box 460
Pleasanton, California 94566

Facility Name: Vallecitos Nuclear Center
Inspection at: Pleasanton, California
Inspection conducted: June 1-4, 1982

Inspector: *B. L. Brock* 7/23/82
B. L. Brock, Fuel Facilities Inspector Date Signed

Approved by: *R. D. Thomas* 7/28/82
R. D. Thomas, Chief, Materials Radiation Protection Section Date Signed

Approved by: *H. E. Book* 7/29/82
H. E. Book, Chief, Radiological Safety Branch Date Signed

Summary:

Inspection on June 1-4, 1982 (Report No. 70-754/82-02)

Areas Inspected: Organization; modifications and changes to facilities and systems; internal review and audit; operations review; safety committee; criticality safety; and radiation protection.

The inspection involved 24 inspector-hours on-site by one NRC inspector.

Results: No items of noncompliance were identified in the subject areas inspected.

DETAILS

1. Persons Contacted

*W. H. King, Manager, Nuclear Safety and Quality Assurance
*G. E. Cunningham, Senior Licensing Engineer
W. R. Lloyd, Senior Engineer, Nuclear Safety Technology
D. C. Bowden, Nuclear Safety Compliance Engineer, Nuclear Safety Technology
R. E. Gest, Environmental Specialist, Radiological and Environmental Protection
S. S. Murray, Specialist, Radiation Safety and Ventilation
M. L. Thompson, Manager, Advanced Fuels Laboratory
J. I. Tenorio, Manager, Remote Handling Operations
D. Zimmerman, Analyst, Radioactive Products and Services
J. Keith, Radioactive Waste Handling Technician
B. M. Murray, Radiological Engineer
G. Overturf, Electronics Design Specialist

*Denotes those attending the exit interview.

2. Organization

J. Zimmer has replaced M. L. Thompson as Manager of the Advanced Fuels Laboratory. W. H. King, Manager of Nuclear Safety and Quality Assurance, is also Acting Manager of Nuclear Safety. G. C. Martin has replaced C. Ruiz as Area Manager of Building 103 (Chemistry and Metallurgy Laboratory).

No items of noncompliance were identified.

3. Modifications and Changes to Facilities and Systems

Decontamination of the Advanced Fuels Laboratory (AFL) and the Plutonium Analytical Laboratory (PAL) is continuing. The licensee anticipated completing his cleanup and survey activities in early June 1982. The report covering the results of his survey of these areas will be provided to the NRC Regional Office.

The planned move of the whole body counter from Building 104 to Building 102B has been completed. The unit is fully operational in its new location.

No items of noncompliance were identified.

4. Internal Review and Audit

The licensee continues to conduct audits by criticality specialists and monitors as appropriate. Signatures of the monitor, the

supervisor of the area audited, and the monitor's supervisor on appropriate pages of the audit assure that the findings reach the appropriate managers in a timely manner. The audit frequency for the various areas is specified in the Nuclear Safety Procedure No. 6200.

No items of noncompliance were identified.

5. Operations Review

The inspection included visits to the basins for treatment (separately) of sewage and industrial liquid wastes. The Advanced Fuels Laboratory air effluent filtration system in Building 102A was observed as well as its associated monitoring system. The Radioactive Materials Laboratory (RML) and its hot cells were visited as well as its peripheral areas including the corridors where casks are handled, the basement where the air effluent is filtered, and the small hot cells where Xenon gas is repackaged and irradiated metallographic specimens are prepared. The Hillside Area for storage of radioactive materials was also visited as well as the Waste Evaporation Plant which treats radioactive waste water by filtration, ion exchange, and evaporation. Separated solids are packaged and shipped to burial.

No items of noncompliance were identified.

6. Safety Committee

The Vallecitos Technological Safety Council continues its effective performance. Items identified for improvement are appropriately followed up with a status report presented at each meeting.

No items of noncompliance were identified.

7. Criticality Safety

The licensee has completed six criticality analyses this year and expects to do additional analyses on the Advanced Fuels Laboratory as different operations are scheduled in the laboratory. The other analyses covered operations in Cells 3 and 4 of the Radioactive Materials Laboratory (RML), the Nuclear Test Reactor, the Dry Pit Facility in RML, the Waste Evaporator Plant, and the Warehouse storage of the Nuclear Control and Instrument Department products.

No items of noncompliance were identified.

8. Radiation Protection

In the previous inspection report (No. 70-754/82-01), it was reported that a plutonium urinalysis sample from an individual who worked in the Radioactive Materials Laboratory (not the Advanced Fuels

Laboratory), yielded a value of 11 dpm/l. Subsequent analyses reported April 14, 1982 (for samples taken February 26 and March 1, 1982) for the same individual indicated values of 0.5 dpm/l. The licensee learned that the alpha tracks in one microscope field were not supported by indications of alpha tracks in other microscope fields of the same film. Three additional samples were submitted and the one result available to date is 0.02 dpm/l (the limit of detection). The current analytical results are inconclusive. The remaining two samples are currently being analyzed and will be included in the next inspection report (82-02-01).

For the period January through June 1982, the uranium fluorimetric assays averaged at the limit of detection (≤ 0.5 ug/l) with 0.9 ug/l as the maximum value reported. The uranium radiometric assays also averaged at the limit of detection (0 ± 2 dpm/l) with one value of 0 ± 5 dpm/l resulting from the analysis of a sample which was about one fourth of the normal sample size. No resampling was required based on the uranium bioassay results.

No items of noncompliance were identified.

9. Management Review

The scope and results of the inspection were discussed with licensee management at the conclusion of the inspection. The licensee was informed that no items of noncompliance were identified within the scope of the inspection.