UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

November 8, 2007

Mr. David Turner, Manager
Vallecitos Nuclear Center
General Electric Company
6705 Vallecitos Road
Sunol, California 94586

SUBJECT: NRC INSPECTION REPORT 050-00018/07-003

Dear Mr. Turner:

This refers to the inspection conducted on October 9, 2007, of the General Electric (GE) Vallecitos Boiling Water Reactor (VBWR) in Sunol, California. The inspection was an examination of decommissioning activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspection included discussions with your staff and examination of selected procedures related to the planned removal of equipment and components from the GE VBWR. Details of the inspection were presented to your staff at the conclusion of the onsite inspection. The enclosed report presents the results of that inspection. No violations were identified, and no response to this letter is required.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this inspection, please contact the undersigned at (817) 860-8197 or Mr. Emilio M. Garcia, Health Physicist, at (530) 756-3910.

Sincerely,

/RA/

Jack E. Whitten, Chief
Nuclear Materials Safety Branch B

Docket No.: 050-00018
License No.: DPR-1

Enclosure: NRC Inspection Report No. 050-00018/07-003
(w/Attachments 1&2)

cc w/encl.: California State Radiation Control Program Director

bcc w/enclosure (via e-mail distribution):
LDWert
JEWhitten
JTBuckley, FSME/DWMEP/DURLD
KMWitt, NRR/ADRA/DPR/PRT
RJEvans
RITS Coordinator
FCDB File

SUNSI Review Completed: EMG ADAMS: ■ Yes ☐ No Initials: EMG
■ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ■ Non-Sensitive

DOCUMENT NAME: S:\DNMS\!Fcdb\!EMG\GEVBWR0703 final r:_DNMS\2007

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.:	050-00018
License Nos.:	DPR-1
Report No.:	050-00018/07-003
Licensee:	General Electric Company
Facility:	General Electric Vallecitos Boiling Water Reactor
Location:	6705 Vallecitos Road Sunol, California 94586
Dates:	October 9, 2007
Inspector:	Emilio M. Garcia, Health Physicist
Approved By:	Jack E. Whitten, Chief Nuclear Materials Safety Branch - B
Attachments:	Supplemental Information Partial List of Documents Reviewed
Attachment:	Supplemental Inspection Information

ENCLOSURE

EXECUTIVE SUMMARY

GE Vallecitos Nuclear Center
NRC Inspection Report No. 050-00018/07-003

This inspection was a routine, announced inspection of activities being conducted at the General Electric Vallecitos Boiling Water Reactor in preparation for the removal of equipment and components from the reactor building. The inspection included a tour of the reactor site and discussions with licensee's and contractor's staff related to the plans being made for the removal of this equipment.

Occupational Radiation Exposure and Solid Radioactive Waste Management and Transportation of Radioactive Materials (IP 83750 and 86750)

- The licensee had developed a plan of action to remove and dispose of components from the reactor building. A contractor had been selected to manage and supervise the project. Administrative controls including change authorizations, project specific procedures, work plans and schedule were being developed by the licensee. Radioactive waste when removed for the reactor building would be shipped to a licensed low level waste disposal site (Section 1).

Report Details

Summary of Plant Status

The GE Vallecitos Boiling Water Reactor (VBWR) achieved full power operations at 50 Mw(t) in 1957 but was permanently shut down in 1963.

At the time of the inspection, the reactor fuel had been permanently removed from the reactor and shipped from the site. The license authorized the possession of the associated reactor and related byproduct material. At the time of this inspection, the reactor was in SAFSTOR, a decommissioning alternative which authorizes a licensee to safely store the reactor and related byproduct material for an extended period of time, pending final decommissioning. The primary reason for placing the reactor in SAFSTOR was to allow for the decay of cobalt-60 that in turn would reduce radiation exposures to occupational workers during future decommissioning activities.

The VBWR license has no expiration date. The licensee does not intend to decommission the reactor in the near future, but intends only to remove components as permitted under the current license. The license as currently written allows the licensee to remove and dispose of components other than the reactor pressure vessel. This inspection was implemented to review the licensee's plans for the removal of equipment and other components other than the reactor vessel from the reactor building. The licensee projected that the work of removing equipment and components would be completed by late spring to early summer 2008.

1 Occupational Radiation Exposure and Solid Radioactive Waste Management and Transportation of Radioactive Materials (IP 83750 and 86750)

1.1 Inspection Scope

The inspector was briefed by licensee and contractor personnel on the preparations for the dismantlement, removal, and disposal of equipment.

1.2 Observations and Findings

The licensee had developed a plan of action for the removal of components from the reactor under the exiting license. Licensed activities to be conducted under the license by the licensee's contractor included high radiation area access and control, monitoring of effluents, personnel radiation monitoring and control, radioactive material control, and the packaging and shipment of radioactive waste. The inspector confirmed that all of these activities planned by the licensee were permitted under the existing license.

The licensee projected that this project would be completed in approximately nine months after the actual work started. At the time of the inspection, the work was expected to be completed by late spring to early summer 2008. In support of the project the license had procured the services of a contractor to manage, supervise the project and to assure health and safety. This contractor in turn had three subcontractors

providing personnel and equipment to conduct the actual work. Subcontractors were required to provide personnel and equipment for demolition and manpower, radiation protection, and waste shipment. Total work force for the project, including project management and supervision, was approximately 16 individuals.

Administrative control of the project included the use of Change Authorizations (CAs), project specific procedures and work plan and a project schedule. The CAs were the GE Vallecitos Nuclear Center administrative mechanism used to describe and approve safety-related changes to systems and processes. The licensee planned on authorizing six CAs:

1. Component Removal,
2. Effluent Monitoring,
3. Personnel Access Control via Equipment Access Hatch,
4. Installation of Jib Crane,
5. VBWR Polar Crane Certification, and
6. VBWR electrical power isolation.

The first five CAs had been developed and submitted for review and approval, the sixth CA had not yet been developed. The licensee had approved CA 3 and 4 at the time of the inspection.

Project specific procedures to be approved by GE Vallecitos Regulatory Compliance and Area Managers included the following topical areas:

- Work Plans,
- Access Control,
- Air Sampling,
- System Breaching and Characterization,
- Water Transfer and Processing,
- Waste Packaging, and
- Waste Shipping.

The project management was tasked with developing and approving work plans for each significant activity. Work plans when developed by project management would include job hazard assessments.

The project management staff provided the inspector with a list of the primary activities and the sequence that would be used for work planning and scheduling.
Radioactive waste generated from the project was to be disposed at a low level licensed radioactive waste disposal site. The reactor missile shield was to be surveyed by the contractor for contamination and released for unrestricted use if not radiologically contaminated. To ensure the safety of the workers, the licensee informed the inspector they had procured the services of a laboratory authorized for the analysis of lead in the presence of radioactive material.

The project schedule at the time of the inspection projected actual dismantlement work to begin in mid October 2007.

1.3 Conclusion

The licensee had developed a plan of action to remove and dispose of components from the reactor building. A contractor had been selected by the licensee to manage and supervise the project. Administrative controls including change authorizations, project specific procedures, work plans and schedule were being develop. Radioactive waste when removed from the reactor facility would be shipped to a licensed low level waste disposal site.

2 Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the exit meeting on October 9, 2007.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

C. Bassett, Manager, Facilities Maintenance and Quality Assurance
R. Lillge, Manager, Liability Reduction
S. Murray, Manager, Licensing and Liabilities
L. Martin, Manager, Regulatory Compliance and Environmental Health & Safety
H. Stuart, Specialist, Radiological Engineering
D. Turner, Manager, Vallecitos Nuclear Center

Nuclear Fuel Services - Contractor

G. Astrauckas, Project Manager
Henry Oldham, Project Manager - GE Projects

INSPECTION PROCEDURE USED

IP 83750	Occupational Radiation Exposure
IP 86750	Solid Radioactive Waste Management and Transportation of Radioactive Materials

ITEMS OPENED AND CLOSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS

CA	Change Authorization
GE	General Electric
IP	NRC Inspection Procedure
Mw(t)	Megawatt Thermal
VBWR	Vallecitos Boiling Water Reactor

PARTIAL LIST OF DOCUMENTS REVIEWED

- VBWR Component Removal Presentation Slides, October 9, 2007.
- VBWR Component Removal Draft Schedule, October 4, 2007.
- Change Authorization 07-25, Personnel Access Control Via VBWR Equipment Access, approved September 12, 2007.
- Change Authorization 07-28, Installation of Jib Crane South of VBWR Equio Acess, approved September 24, 2007.
- Change Authorization 07-30, VBWR Component Removal, approved September 12, 2007.