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

October 20, 2006

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

SUBJECT: NRC INSPECTION REPORT 070-00754/06-003 and NOTICE OF VIOLATION

Dear Mr. Turner:

An NRC inspection was conducted on September 5-8, 2006, at your Vallecitos Nuclear Center site. The inspection was an examination of 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 an examination of selected procedures and representative records, observations of activities, and interviews with personnel. Subsequent to the site visit and after reviewing additional information provided by your staff, an exit briefing was conducted with you by telephone on September 22, 2006. The enclosed report presents the results of that inspection.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation involved failure to maintain durable, clearly visible radioactive materials labels on four waste containers as required by 10 CFR 20.1904(a). This violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov; select **What We Do**, **Enforcement**, then **Enforcement Policy**. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because the violation was identified by the inspector and not by your staff.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration and convenience, an excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is enclosed. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In addition to the violation, two unresolved items were identified during the inspection and are documented in the report. The first Unresolved Item contain sensitive unclassified security-related information, and is therefore deemed Official Use Only, and is described in Enclosure 2 to this letter. The second Unresolved Item relates to the radiological contamination of surfaces

and discreet items in the Building 102 operating cell gallery. An unresolved item is a matter about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. The NRC will resolve these items during future inspections once the licensee's investigations into these matters have been completed and reviewed .

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and Enclosure 1 will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Enclosure 2 contains sensitive, unclassified security information, and is therefore deemed Official Use Only and will not be placed in the Public Document Room nor the Publicly Available Records component of the NRC's Agencywide Documents Access and Management System (ADAMS) document system.

Should you have any questions concerning this inspection, please contact the undersigned at (817) 860-8191 or Emilio M. Garcia, Health Physicist, at (530) 756-3910.

Sincerely,

/RA/

D. Blair Spitzberg, Ph.D., Chief
Fuel Cycle & Decommissioning Branch

Docket No.: 070-00754
License No.: SNM-960

Enclosures:
NRC Inspection Report 070-00754/06-003
Notice of Violation
Excerpt from NRC Information Notice 96-28

cc w/enclosures:
Ms. LaTonya Martin, Manager
Regulatory Compliance and Environmental Safety
General Electric Company
Vallecitos Nuclear Center
6705 Vallecitos Road
Sunol, California 94586

James D. Boyd, Commissioner
California Energy Commission
1516 Ninth Street (MS 34)
Sacramento, CA 95814

Gary Butner, Chief
Radiologic Health Branch
1500 Capitol, MS7610
Sacramento, CA 95814

Helen Hubbard
P.O. Box 563
Sunol, CA 94586

Ms. Marylia Kelley
Executive Director, Tri-Valley CARES
2582 Old First St
Livermore, CA 94551

Pleasanton Public Library
Attn: Ms. Karol Sparks
400 Old Bernal Ave
Pleasanton, CA 94566

Rene G. Steinhauer
5524 Oakmont Cir.
Livermore, CA 94550

bcc w/enclosure (via e-mail distribution):
LDWert
CLCain
DBSpitzberg
MTAdams, NMSS/FCSS/FFLD/F
EMGarcia
RJEvans
RITS Coordinator
FCDB
RIV Materials Docket File - 5th Floor

SUNSI Review Complete: EMG

ADAMS: ☒Yes ☐No Initials: EMG

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EMGarcia*	DBSpitzberg
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NOTICE OF VIOLATION

General Electric Co.
Vallecitos Nuclear Center
Sunol, California

Docket No. 70-754
License No. SNM-960

During an NRC inspection conducted on September 5 through 8, 2006, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> 10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL."
>
> Contrary to the above, on September 6, 2006, the labels on four containers of radioactive waste (licensed material) were not clearly visible such that the radiation symbol and the words “CAUTION, RADIOACTIVE MATERIALS” could not be read.
>
> This failure is a Severity Level IV violation of 10 CFR 20.1904(a) (Supplement IV).

Pursuant to the provisions of 10 CFR 2.201,General Electric Co. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region IV, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation” and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response 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, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10

CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 20th day of October 2006

ENCLOSURE 1

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	070-00754
License No.:	SNM-960
Report No.:	070-00754/06-003
Licensee:	General Electric Company
Facility:	Vallecitos Nuclear Center (VNC)
Location:	Sunol, California
Dates:	September 5 through 22, 2006
Inspector:	Emilio M. Garcia, Health Physicist Fuel Cycle & Decommissioning Branch
Approved By:	D. Blair Spitzberg, Ph.D., Chief Fuel Cycle & Decommissioning Branch
Attachment:	Supplemental Inspection Information

EXECUTIVE SUMMARY

Vallecitos Nuclear Center
NRC Inspection Report 070-00754/06-003

This routine announced inspection included a review of the radioactive waste management program, transportation activities, plant operations, maintenance and surveillance testing, and emergency preparedness. In addition, the inspector reviewed the circumstances involving the discovery of radioactive contamination found in the cell operating gallery.

Radioactive Waste Management

- The licensee maintained a program to properly characterize and classify radioactive waste (Section 1).

- A Severity Level IV violation was identified for the failure to maintain durable and clearly visible labels on four waste containers (Section 1).

Transportation Activities

- The licensee had implemented and maintained a transportation program for radioactive materials and radioactive waste in accordance with NRC and U.S. Department of Transportation regulations (Section 2).

Plant Operations

- Two unresolved items were identified. One contains sensitive unclassified security-related information, and is therefore deemed Official Use Only, and is described in Enclosure 2. The second item relates to the regulatory issues associated with the radiological contamination of surfaces and discreet items in the Building 102 operating cell gallery. The NRC will resolve these items during future inspections once the licensee's investigations into these matters have been completed and reviewed (Section 3).

Maintenance and Surveillance Testing

- Testing of the criticality alarm system was performed in accordance with license requirements. The licensee had conducted calibrations and instrument functional response checks in accordance with the license (Section 4).

Emergency Preparedness

- The licensee continued to maintain the emergency preparedness program as required by the license (Section 5).

Report Details

Summary of Plant Status

During the inspection, activities in progress included research of unirradiated and irradiated uranium reactor fuel and irradiated hardware.

1 Waste Management (IP 84850, IP 84900, and IP 88035)

1.1 Inspection Scope

The inspector reviewed the licensee's practices for radioactive waste classification and storage.

1.2 Observations and Findings

The licensee had a program in place to properly characterize and classify radioactive waste as required by 10 CFR 61.55 and 61.56. Records reviewed indicated that the licensee had classified radioactive waste appropriately. Records maintained indicated that annual radioactive waste handling training had been provided as required. The training included a written test.

During late February 2004, the licensee replaced the main hot cell filters of Building 102. Due to the radiological condition of the spent filters, their removal occurred in areas that were classified as both high radiation and airborne radiation areas. In order to prevent additional radiation exposure in the future, the licensee staff collected samples of the spent filters at the time they were packaged. The samples were to be analyzed to evaluate the content of the filters and to classify the radioactive waste. During this inspection, the individual responsible for the waste classification stated that the material removed during the filter changes that occurred in February 2004 was considered radioactive material but had not been classified as radioactive waste and was not likely to be classified as radioactive waste for the foreseeable future. This individual did not know if the filter samples had been analyzed and what had happened to the results of those analysis. Additional personnel exposure would result if the filter containers needed to be opened to collect additional samples. During the exit interview the licensee management indicated they would verify that the samples had been analyzed, and that the results of the analysis would be preserved for the time that the material was classified as waste.

On September 6, 2006, the inspector toured the licensee's hillside waste storage facility and noted that the radioactive material labels of at least four "sea vans" containing radioactive waste had faded to the point that they were no longer clearly visible. Once informed of this condition, licensee management had radioactive surveys performed and new labels placed on the containers. These surveys and labels were considered temporary since locations, size and weight of the sea vans did not permit surveys on all surfaces. 10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, and clearly visible label bearing the radiation symbol and bearing the words "caution, radioactive material" or "danger, radioactive material."

The inspector identified the failure to maintain durable, and clearly visible labels on four waste containers as a Severity Level IV violation of 10 CFR 20.1904(a) (VIO 70-754/0603-01).

1.3 Conclusions

The licensee maintained a program to properly characterize and classify radioactive waste as required by 10 CFR 61.55 and 61.56. A Severity Level IV violation was identified for failure to maintain durable, and clearly visible labels on four waste containers.

2 Transportation (86740)

2.1 Inspection Scope

The inspectors interviewed cognizant personnel and reviewed shipping records to determine if radioactive waste shipments were in compliance with applicable NRC and U.S. Department of Transportation regulations.

2.2 Observations and Findings

The inspector reviewed records maintained by the licensee of radioactive waste shipments that had been made under this licensee. No shipments other than waste shipments had been made under this license. The records reviewed included copies of the shipping papers which indicated that the shipments had been properly classified, marked and labeled. The shipping papers included emergency response guidance to the vehicle operators as well as a 24-hour staffed telephone number. The licensee maintained copies of the recipient's licenses to receive the radioactive waste material. The licensee also maintained copies of the applicable NRC and U.S. Department of Transportation regulations. The licensee's representatives stated that they had not received any citations from the States nor from the U.S. Department of Transportation.

The licensee maintained records indicating that individuals involved with hazardous material transport had received training and retraining every 2 years. This training was in part to meet the 3-year training requirements of the U.S. Department of Transportation 49 CFR 172.700 regulations. The training included a written test.

2.3 Conclusions

The licensee had implemented and maintained a transportation program for radioactive materials and radioactive waste in accordance with NRC and U.S. Department of Transportation regulations.

3 Plant Operations (88015)

3.1 Inspection Scope

The inspector reviewed the circumstances related to two licensee identified events.

3.2 Observations and Findings

The first licensee identified event contains sensitive unclassified security-related information, and is therefore deemed Official Use Only, and is described in Enclosure 2.

Contamination of Operating Gallery

On Friday, September 1, 2006, during routine contamination surveys of the cell operating gallery, the licensee identified the presence of beta/gamma radioactive contamination on a number of surfaces. These included the exterior of a desk as well as the interior of two desk drawers and a telephone. The contents of a drawer were also contaminated and included eating utensils and other items. The licensee also located contamination on a sink in an adjacent shop where the individual routinely rinsed some of the eating utensils. A whole body count of the individual who used the eating utensils did not detect any contamination. The licensee has removed the desk from the area, confiscated most of the items from the desk, prohibited drinking and eating in the Cell gallery area, posted the sink as a contaminated area and isolated the sink from use, conducted gamma spectroscopy analysis of some of the contaminated smears, and conducted additional surveys. On Tuesday and Wednesday, September 5 and 6, 2006, additional contamination was found in the floor and other surfaces of the cell gallery. The highest detected contamination was detected on Friday, September 1, and it was on the inside of the upper right hand drawer of the desk. This contamination was 25,000 dpm/100cm^2 removable beta/gamma. Isotopic analysis of the contamination identified mixed fission and activation products including cobalt 60, cesium 134, cesium 137, cerium 144, and europium 154 among other nuclides. The licensee had not determined the source of the contamination. The licensee has initiated a formal investigation to determine causes and corrective actions.

Since the licensee was continuing their investigation of this incident at the conclusion of this inspection, this matter is considered an unresolved item. An unresolved item is a matter about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. The NRC will resolve this item during a future inspection once the licensee's investigation into this matter has been completed and reviewed (**URI 70-754/0603-02**).

3.3 Conclusions

Two unresolved items were identified. One related contains sensitive unclassified security-related information, and is therefore deemed Official Use Only, and is described in Enclosure 2. The second item relates to the regulatory issues associated with the radiological contamination of surfaces and discreet items in the Building 102 operating cell gallery. The NRC will resolve these items during future inspections once the licensee's investigations into these matters have been completed and reviewed.

4 Maintenance and Surveillance Testing (88025)

4.1 Inspection Scope

The inspector reviewed the maintenance and surveillances of the criticality alarm system and the radiation survey meters.

4.2 Observations and Findings

a. Criticality Alarm System

A criticality accident monitoring system is required by 10 CFR 70.24(a)(1). This regulation states that the monitoring system shall be capable of detecting a criticality that produces an absorbed dose in soft tissue of 20 rads of combined neutron and gamma radiation at an unshielded distance of 2 meters from the reacting material within 1-minute. Criticality monitoring is also required by Section 5.9 of Appendix A to the license application. Details of the detection system are provided in Section 3.8.1 of Appendix B to the license application.

Two sets of three gamma radiation detectors are used by the licensee. The inspector observed the two areas that were being continuously monitored by criticality alarms. The inspector confirmed that the monitors were installed in the locations specified in the NRC-approved license application.

The licensee conducted monthly tests of the criticality alarms to verify operability. The licensee tested the monitors while the inspector was onsite on September 6, 2006. The monitors were documented as being fully functional at that time. Records reviewed by the inspector indicated that the criticality monitors had been tested monthly for at least the last 12 months.

b. Survey Meter Operability Checks and Calibrations

Section 8.7 of Appendix A to the license application states that field check sources shall be available for use in functional response checks of portable radiation measuring instrumentation. The inspector observed the licensee conducting survey instrument operability checks. The licensee had radioactive check sources available for use with the different types of survey meters being used at the site, including gamma exposure, alpha particle, and beta particle detectors.

Records of portable radiation measuring instruments reviewed by the inspector indicated that the instrument calibrations had been conducted at the required annual frequency. The licensee indicated that daily functional response checks using a check source provided assurance that the instruments were responding within an acceptable range. The inspector observed personnel perform functional response checks prior to using portable radiation measuring instruments.

4.3 Conclusions

Testing of the criticality alarm system was performed in accordance with license requirements. The licensee had conducted calibrations and instrument functional response checks in accordance with the license.

5 Emergency Preparedness (88050)

5.1 Inspection Scope

The objectives of this portion of the inspection was to ascertain whether the licensee's emergency preparedness program was being maintained in a state of operational readiness.

5.2 Observations and Findings

Although the licensee is not required by 10 CFR 70.22(I) to maintain a radiological emergency plan for SNM activities, the licensee committed in Section 4.5 of Appendix A to License SNM-960 to establish and maintain site emergency procedures. The inspector reviewed the licensee's emergency preparedness program to ensure that the program was being maintained in a state of operational readiness.

The licensee maintains a number of telephone lists of contacts as Attachment B to Site Emergency Procedure A-5, Emergency Control Procedure - General. These lists of telephone numbers were in an spreadsheet with tabs for each list. Tab 2 is the Off-Site Agencies Call list. The telephone numbers on this list were verified quarterly by the Security staff. This verification was part of the Security contractor's equipment testing matrix. The Security contractor used their own list to conduct this number verification. During the check conducted on June 9, 2005, the Security contractor identified that four telephone numbers needed to be updated. The data sheet used to conduct this quarterly testing was provided to the individual assigned to maintain the spreadsheet of Procedure A-5. The Security contractor revised their data sheet with the correct numbers for their future quarterly checks. However, the official list on Procedure A-5 was not revised. On September 7, 2006, the official list for Off-Site Agencies that would have been used by Security during an emergency had four out of date telephone numbers. When this matter was brought to the licensee's attention, the list was promptly updated and this item was added to the licensee's corrective action program. This failure to update the Off-Site Agencies call list was considered a minor violation because it was an isolated incident, promptly corrected and added to the licensee's corrective action program.

Emergency supplies were required by Section 3.6 of Appendix B to the license application. The licensee maintained 11 emergency supply cabinets across the site. The inspector randomly chose one cabinet and inspected the contents of the cabinet against the procedure inventory list. The inspector noted that all required supplies were stored in the cabinet.

The inspector reviewed records of four emergency drills conducted in 2006. All these

drill packages included a scenario description, drill objectives, data sheets, drill auditor's time log, and drill critiques. All drill objectives included evacuations from at least one building, emergency response organization response, personnel accountability, testing of the onsite notification system and other onsite communications. Lessons learned from these drills were identified in action items and were being addressed.

5.3 Conclusions

The licensee continued to maintain their emergency preparedness program as required by the license.

6 Followup (92701)

(Closed) Violation 070-00754/0601-02: Failure to prevent a fissile-bearing shipping container from being stored inside the protected area fence of the hillside storage area. The inspector verified that the corrective actions and actions taken to prevent recurrence listed in the licensee's letter of June 16, 2006, subject Reply to Notice of Violation 070-00754/0601-02, had been implemented. This item is closed.

7 Exit Meeting Summary

The inspector presented the inspection results to the Manager, Vallecitos Nuclear Center, on September 8, 2006. On September 22, 2006, and after receiving additional information, the inspector conducted a telephonic exit interview the Manager, Vallecitos Nuclear Center. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspector.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

J. Ayala, Radiation Monitoring Specialist
C. Bassett, Manager, Facilities Maintenance and Quality Assurance
D. Boorn, Process Instrument Technician
G. Dumlao, Instrument Technician
W. Mah, Metallurgical Technician
D, Mahoney, Materials Shipping Technician
L. Martin, Manager, Regulatory Compliance and Environmental Health and Safety
C. Martinez, Principal Engineer (Radioactive Waste)
C. Monetta, GENE Environmental Health and Safety Manager
H. Stuart, Radiological Engineer
D. Turner, Manager, Vallecitos Nuclear Center

INSPECTION PROCEDURES USED

IP 84850, Radioactive Waste Management - Inspection of Waste Generator Requirements of 10 CFR Part 20 and 10 CFR Part 61
IP 84900, Low-level Radioactive Waste Storage
IP 86740, Inspection of Transportation Activities
IP 88020, Plant Operations
IP 88025, Maintenance and Surveillance Testing
IP 88035, Radioactive Waste Management
IP 88050, Emergency Preparedness
IP 92701, Followup

ITEMS OPENED, CLOSED OR DISCUSSED

Opened

70-754/0603-01	VIO	Failure to maintain durable, clearly visible radioactive materials labels on four waste containers as required by 10 CFR 20.1904(a).
70-754/0603-03	URI	Regulatory issues related to the radiological contamination of surfaces and discreet items in the Building 102 operating cell gallery.

Closed

70-754/0601-02	VIO	Failure to prevent a fissile-bearing shipping container from being stored inside the protected area fence of the hillside storage area.

Discussed

None

LIST OF ACRONYMS USED

NOTICE	Notice of Violation
IP	Inspection Procedure
SNM	Special Nuclear Material
URI	Un-Resolved Item
VIO	Violation
VNC	Vallecitos Nuclear Center