



General Electric Company
Vallecitos Nuclear Center
P.O. Box 460, Vallecitos Road
Pleasanton, CA 94566

April 17, 1998

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

Subject: **Reply to Notice of Violation**

References: 1) License R-33, Docket 50-73.
2) NRC Inspection Report No. 50-73/98-201; 50-70/98-201; 50-183/98-201 and
Notice of Violation; March 18, 1998.

Gentlemen:

During the referenced routine inspection conducted by the non-power reactor inspector from Region II, three violations of NRC requirements were identified with the radiation protection and physical security functions which support the GE Nuclear Test Reactor (NTR) operations. The following discussion provides GE's written statement or explanation of the violations.

1. Failure to post a radiation area as required by 10CFR20.1902

In response to item 1. - Unposted radiation area on the wall outside the South Cell.

A. Mitigation of the violation:

1. The South Cell Shutter was opened with no part/film cassette in place. This is never done during routine operations. The dose rate in the area in question is about 30% higher without a part/film cassette in place. All previous surveys were done with parts in place.
2. The South Cell shutter is not normally opened continuously for periods as long as one hour. It remains open for up to 3 minutes perform neutron radiography of a particular part, then is shut for about a minute while preparing for the next shot. This sequence is repeated while neutrographing all of the parts scheduled for the day.

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3. Because there is a possibility, under worst case conditions, that an individual could receive in excess of .005 Rem in one hour in the area in question, the following actions have been taken.

B. Corrective Steps Taken

1. The area has been roped off, with a sign stating "Caution - Radiation Area".
2. An additional concrete wall (approximately 18" thick) has been framed and poured adjacent to the exterior of the existing wall. Shielding calculations showed that the dose rate in the area in question would be reduced to well below the limits for a radiation area.

C. Corrective Steps to be Taken

1. The radiation area posting will be removed after confirmation that the worst case dose rate is less than 5 mRem/hr. No further action is deemed necessary or planned.

D. Full Compliance Achievement Date

1. With the addition of the new wall, the area is permanently compliant with the requirements for an unposted area. The wall was completed on 4/16/98.
2. Failure to comply with requirements of standard operating procedures/exceeding prescribed time limits for monitoring.

In response to item 2.a. - exceeding monthly surveillance interval

A. Dispute of Violation

1. Tech Spec 4.6.1 Applicability reads "This specification applies to all surveillance requirements of Section 4 of these Technical Specifications." The surveillance requirements of Section 4 apply to 1) Reactivity Limits, 2) Reactor Control and Safety System, 3) Reactor Coolant System, 4) Reactor Cell and Ventilation System, and 5) Experiments. Radiation Surveys are not a surveillance requirement of section 4 of the NTR Technical Specifications.

2. Tech Spec 4.6.3.1, which specifies the 6-week requirement for monthly surveillance, states "Time intervals used elsewhere in these specifications shall be defined as follows:..." There is no time interval specified in the NTR Technical Specifications for Radiation Surveys.
 3. The radiation survey program for the NTR is described in Section 7.0 "Radiological Safety" and specifically Section 7.3 "Radiation and Contamination Surveys". These procedures, in turn, reference the Nuclear Safety Procedure number NSP 3550, "NTR Work Routines". The radiation survey procedures were written with the intention that the surveys be performed within the calendar period specified, i.e. monthly surveys be performed each calendar month.
 4. In the case of the North Room and South Room surveys in December and January: Surveys were done early in December in anticipation of Holiday Shutdown period, then returned to the normal end of the month in January. This scheduling provided the survey information during times which were most appropriate to reactor operation, rather than surveying during periods of reactor inactivity.
- B. Corrective Steps Taken
1. In spite of the lack of a documented requirement for such a time period definition, the radiation monitor has been made aware of the situation, and is tracking the survey periodicity to ensure that monthly surveys are not performed more than six weeks apart.
- C. Corrective Steps to be Taken
1. Nuclear Safety Procedure NSP 3550 will be changed to include time interval requirements and operational considerations, and the Survey check sheet will be changed to include the date last performed.
- D. Full Compliance Achievement Date
1. GE is currently in compliance with the disputed requirement by tracking survey intervals
 2. The NSP changes will be made by the end of May 1998.

In response to item 2.b. - missed whole body counts (WBC)

A. Reason for the Violation

1. Lack of follow-up and tracking of the required counts. Personnel position transfers and explicit definition of responsibility contributed to the missed counts.

B. Corrective Steps Taken

1. A separate, independently maintained computer system has been established in the nuclear safety group as a backup to notify individuals of scheduled WBC's.
2. WBC's are now tracked by Area Managers for all of their assigned personnel, and independently tracked by the Radiological Engineer for all Site Employees.

C. Corrective Steps to be Taken

1. With the backup notification systems, and two independent tracking systems in place, there will be no more missed WBC requirements. No further action is required, beyond continuance of the programs already in place.

D. Full Compliance Achievement Date

1. Full compliance is currently being achieved. Tracking of 1998 WBC's shows that no site employees have missed their scheduled WBC's for the first quarter of 1998.

3. Failure to comply with requirements of Section 12 of the Physical Security Plan (PSP)

In response to item 3.a. - semi-annual testing of emergency generator

A. Reason for the Violation

1. Site Maintenance personnel were unaware of the requirement; PSP plan changes requiring semi-annual testing were not communicated to Facilities Maintenance.

B. Corrective steps taken

1. Prior to this NRC inspection, in 1997, this problem was self identified during internal review by the NTR Facility Manager, at which time the PM schedule was changed to include semi-annual testing of the emergency generator.

C. Corrective Steps to be Taken

1. The PM schedule has been revised to include the required semi-annual inspection, and requires no further corrective action.

D. Full Compliance Achievement Date

1. Full compliance has been achieved since the beginning of 1998.

In response to items 3.b. and 3.c. - missed HICON test dates and off-site emergency call test rescheduled.

A. Reason for the violation

1. Due to other operations taking place on the specified test day, these tests were postponed to the following day when they could be run properly.
2. As for the missed HICON phone test in October, 1997, it appears to be personnel error, where the test was overlooked.

B. Corrective Steps Taken

1. A PSP change is being prepared to revise the requirement for these tests from a specific day of the week to a certain week of the month or quarter.

C. Corrective Steps to be Taken

1. A specific checklist will be made which will be submitted to the Specialist, Radiation Monitoring monthly, to verify that the correct tests were run for that month.

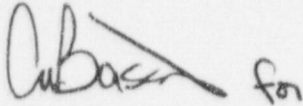
D. Full Compliance Achievement Date

1. Expected to be completed by the end of May 1998.

April 17, 1998

If there are further questions on the proposed corrective actions, please contact B. M. Murray at (925) 862-4455. Thank you.

Very truly yours,

A handwritten signature in black ink, appearing to read "G. L. Stimmell" followed by a stylized flourish.

G. L. Stimmell, Manager
Vallecitos and Morris Operations

cc: Craig Bassett, Senior Non-Power Reactor Inspector
U.S. Nuclear Regulatory Commission, Region II
61 Forsyth Street S.W., Suite 23T85
Atlanta, GA 30303