Pacific Gas and Electric Company

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Gregory M. Rueger
Senior Vice President and
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Nuclear Power Generation

December 14, 1992

PG&E Letter No. DCL-92-275

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

Re: Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Reply to Notice of Violation in NRC Inspection Report 50-275/92-26 and 50-323/92-26

Gentlemen:

NRC Inspection Report 50-275/92-26 and 50-323/92-26, dated November 13, 1992, cited one Severity Level IV violation regarding PG&E's radiation protection program. PG&E's response to the Notice of Violation is enclosed.

Sincerely,

Gregory M. Rueger

cc: Ann P. Hodgdon
John B. Martin
Mary H. Miller
Sheri R. Peterson
CPUC
Diablo Distribution

DC1-92-HP-N060

Enclosure

1080S/85K/PSN/2237

ENCLOSURE

REPLY TO NOTICE OF VIOLATION IN
NRC INSPECTION REPORT 50-275/92-26 AND 50-323/92-26

On November 13, 1992, as part of NRC Inspection Report 50-275/92-26 and 50-323/92-26, NRC Region V issued a Notice of Violation (NOV) citing one Severity Level IV violation for Diablo Canyon Power Plant (DCPP) Units 1 and 2. The statement of violation and PG&E's response follow.

STATEMENT OF VIOLATION

Technical Specification 6.8.1 requires that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide (RG) 1.33, Revision 2, February 1978.

RG 1.33, Appendix A lists, in part, the following procedures:

7. Procedures for Control of Radioactivity (For limiting materials released to environment and limiting personnel exposure)

   e. Radiation Protection Procedures

      (3) Airborne Radioactivity Monitoring

      (4) Contamination Control

Licensee Procedure MRS-2.4.2-GEN 38 (Steam Generator Shot Peening Procedure), Section 9.7.13.5.2, established September 27, 1992, applied certain rules in order to control airborne radioactivity and contamination. These rules required that, with ventilation interrupted to the steam generator cold leg for longer than 15 minutes, either:

1. Shot peening could be temporarily terminated, or

2. With ventilation switched from the cold leg to the hot leg, and dry air supply switched from the hot leg to the cold leg, shot peening could continue.

Contrary to the above, on October 2, 1992, eddy current and shot peening operators failed to implement the provisions for control of radioactivity as given in MRS-2.4.2-GEN 38, Section 9.7.13.5.2, in that ventilation

was interrupted to the steam generator cold leg for one hour, and shot peening continued without switching of the ventilation and dry air supply as required. This failure to implement the procedure resulted in the unanticipated spread of airborne radioactivity.

This is a Severity Level IV violation (Supplement IV).

REASON FOR THE VIOLATION

PG&E agrees with the violation.

To provide humidity control for shot peening work performed in the steam generator (SG) hot leg, dry air is blown into the hot leg manway. An additional source of pressurizing air is the shot peening equipment itself. To maintain control of any loose contamination within the SG, a negative pressure is maintained within the SG by drawing air out from the cold leg manway through a high efficiency particulate airborne (HEPA) filter.

The personnel contracted to perform the shot peening work controlled the hot leg dry air supply for humidity control. Prior to beginning work, these individuals were trained on the significance of the ventilation system in maintaining negative pressure in the SG.

However, the contract personnel responsible for eddy current testing and tube plugging on the cold leg side of the SG were accustomed to HEPA suction on the opposite leg (hot leg) from their work. These individuals were not specifically trained on the new configuration of the SG ventilation for shot peening (i.e., HEPA suction on the cold leg) prior to beginning work in the cold leg.

The cover letter that transmitted the NOV and NRC Inspection Report 50-275/92-26 and 50-323/92-26 noted that PG&E's overall control of radiological hazards encountered during SG work in the Unit 1 outage appeared to be exemplary. However, the Inspection Report identified a concern regarding recurrent unanticipated generation of airborne radioactivity, since two previous, related events occurred on September 25 and 26, 1992.

On September 25, 1992, there was an increase in contamination in the posted hot particle zone surrounding SG 1-1. The cold leg manway door was opened for approximately one minute and it is postulated that loose contamination within the SG was blown onto the platform and down to the lower work areas. Although contamination levels increased within the crane wall area, no increase in activity occurred outside the crane wall. It should be noted that the discharge from the HEPA filters was directed across a highly contaminated trough, and it was not determined whether the spread of contamination was due to the opening of the cold leg manway door or the HEPA air discharge blowing across the contaminated trough. Corrective actions were to reposition the HEPA discharge, provide additional step-by-step instructions for removing cold leg ventilation, and review this information with the involved personnel.

On September 26, 1992, the SG 1-3 cold leg manway door was opened for eddy current maintenance. A dry air supply valve to the hot leg was either not

shut off all the way, or the valve was bumped open after it was shut. An airborne radiation monitor alarmed, and other airborne monitors inside containment were also reading upscale. The immediate corrective actions were to notify the control room and evacuate containment, formalize a checklist for eddy current personnel breaching the manway, and instruct shot peening personnel to stop shot peening if the cold leg manway door remained open for longer than 15 minutes. Personnel were tailboarded prior to resuming work.

On October 2, 1992, the event that is the subject of the NOV occurred. Personnel working in the cold leg opened the cold leg manway door and stopped HEPA suction and dry air supply to SG 1-4 for approximately one hour without stopping shot peening in the hot leg, as directed in the new guidance added after the September 26, 1992 event. This caused an airborne radioactivity monitor to alarm.

PG&E agrees with the NRC that the corrective actions identified for the first two events were adequate and would have prevented the third event if they had been effectively implemented. In addition, PG&E's analysis of all three events concluded that the root cause of the events was that no overall responsibility was established for proper operation of the SG ventilation system to support (a) shot peening activities in the hot leg and (b) eddy current testing/tube plugging activities in the cold leg. A contributing factor was that the personnel working on the cold leg side were not well trained on the ventilation requirements. The corrective actions taken after the first two events addressed only part of this overall programmatic root cause.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

After the October 2, 1992 event, shot peening work was stopped and a tailboard meeting was held to critique the event. The dry air supply and HEPA suction were switched so that HEPA suction was now on the hot leg, thereby allowing easier access to work in the cold leg. The shot peening shift supervisor was given overall responsibility for SG breaches and SG ventilation. This responsibility was added to the shot peening procedure via a field change. Shot peening work continued with a tailboard at each shift change, and the work was completed with no further incidents.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

Prior to the Unit 2 fifth refueling outage in the spring of 1993, the shot peening and eddy current testing procedures will be revised to permanently incorporate the field changes discussed above. Personnel involved in SG eddy current testing will be trained on the operation of the ventilation system and maintaining negative pressure.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Based on the completed field changes to the procedure, PG&E is currently in full compliance. The permanent procedure revisions and training of eddy current personnel will be completed by March 1, 1993.

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RUEGER,G.M. Pacific Gas & Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Responds to NRC 921113 ltr re violations noted in insp repts 50-275/92-26 & 50-323/92-26.Corrective actions:shot peening & eddy current testing procedures will be revised to permanently incorporate field changes.

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