UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-8064

May 1, 2002

Gregory M. Rueger, Senior Vice
President, Generation and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 3
Avila Beach, California 93424

SUBJECT: DIABLO CANYON INSPECTION REPORT 50-275/01-11; 50-323/01-11

Dear Mr. Rueger:

On April 6, 2002, the NRC completed an inspection at your Diablo Canyon Nuclear Power Plant, Units 1 and 2, facility. The enclosed integrated report documents the inspection findings that were discussed on February 11, March 22, and April 11, 2002 with Mr. David H. Oatley and members of your staff as discussed in Section 40A6.

This inspection examined activities conducted under your licenses as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, two violations of NRC requirements were identified. Because these violations were determined to be of very low safety significance and have been entered into your corrective action program, the NRC is treating these issues as noncited violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny the noncited violations, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Diablo Canyon Power Plant.

Since September 11, 2001, Diablo Canyon has assumed a heightened level of security based on a series of threat advisories issued by the NRC. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. On February 26, 2002, the NRC issued orders to all of the Nation's power reactors, formalizing a series of security measures that NRC licensees had taken in response to the threat advisories. Additional security enhancements, which have emerged from the ongoing, nationwide security review, are also spelled out in the orders. Although the specific actions cannot be released to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more

limited access of personnel and vehicles to the sites. The requirements will remain in effect until such time as the Commission determines that the level of threat has diminished, or that other security changes are needed following a comprehensive reevaluation of current safeguards and security programs. The NRC has conducted various audits of your security posture and your ability to respond to terrorist attacks within the capabilities of the current design-basis threat. From these audits, the NRC has concluded that the licensees' security programs are adequate at this time.

Pacific Gas and Electric Company operated under voluntary bankruptcy proceedings during this inspection period. The NRC has monitored plant operations, maintenance, and planning to better understand the impact of the financial situation and how it relates to your responsibility to safely operate the Diablo Canyon reactors. NRC inspections, to date, have confirmed that you are operating these reactors safely and that public health and safety is assured.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

William B. Jones, Chief
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Division of Reactor Projects

Dockets: 50-275
50-323
Licenses: DPR-80
DPR-82

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NRC Inspection Report
50-275/01-11; 50-323/01-11

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets:	50-275 50-323
Licenses:	DPR-80 DPR-82
Report:	50-275/01-11 50-323/01-11
Licensee:	Pacific Gas and Electric Company
Facility:	Diablo Canyon Nuclear Power Plant, Unit 1 and 2
Location:	7 ½ miles NW of Avila Beach Avila Beach, California
Dates:	December 30, 2001, through April 6, 2002
Inspectors:	D. L. Proulx, Senior Resident Inspector T. W. Jackson, Resident Inspector G. F. Suber, Engineering Intern G. W. Johnston, Senior License Examiner, Region IV D. W. Schaefer, Security Inspector, Region IV P. J. Elkmann, Emergency Preparedness Inspector, Region IV
Approved By:	W. B. Jones, Chief, Projects Branch E Division of Reactor Projects

ATTACHMENTS:

Attachment	Supplemental Information

SUMMARY OF FINDINGS

IR 05000-275-01-11, IR 05000-323-01-11, 12/30/01 to 04/06/02, Pacific Gas and Electric. Co., Diablo Canyon Nuclear Power Plant Units 1 and 2. Equip. alignments: Personnel Perf. Rel to nonroutine plant evals. and events.

This report covers a 14-week routine resident, an emergency preparedness inspection by a Region IV inspector on February 11, 2002, and a physical security inspection by a Region IV inspector from March 18-22, 2002. The inspection identified two Green noncited violations (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using IMC 0609 "Significance Determination Process." Findings for which the Significance Determination Process does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

A. Inspector Identified Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a violation of Technical Specification 5.4.1.a for the failure to adequately limit the proximity of transient equipment from safety-related systems that may be required during a seismic event. Technical Specification 5.4.1.a requires that written procedures be implemented for equipment control. Procedure AD4.ID3, "SISIP Housekeeping Activities," Revision 4A, Section 5.1.1, required that transient equipment not create a potential seismically induced system interaction. Contrary to the above, on January 14, 2002, the inspectors discovered an unsecured portable welding machine staged approximately 8 inches from the normal and Class 1 air supply lines for Unit 2 atmospheric dump Valve MS-2-PCV-21. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the corrective action program as Action Request A0547478.

  This violation was more than minor because there was a credible impact on safety because the atmospheric dump valve could not be remotely operated due to loss of air supply in a seismic event. This issue was determined to be of very low safety significance because the other three atmospheric dump valves on the steam generators could be used to adequately cool the reactor coolant system (Section 1R04).

- Green. Technical Specification 5.4.1.a requires the implementation of procedures listed in Regulatory Guide 1.33, Appendix A. Procedures OP L-4, "Normal Operation at Power," Revision 39, Section 5.4 and OP B-9:I, "Primary Sampling System - Make Available and Place in Service," Revision 7, stated, in part, that when pressurizer steam space sampling to the volume control tank was initiated, two backup pressurizer heaters were to be placed in service. On December 28, 2001, operators initiated pressurizer steam space sampling to the volume control tank without placing two backup pressurizer heaters into service. This resulted in a dilution of the volume control tank that increased reactor power above 100 percent for approximately 2 ½ hours. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the

NRC Enforcement Policy. This violation is in the licensee's corrective action program as Action Request A0546623.

This violation was more than minor because it had credible impact on safety due to the unplanned change in reactivity. This issue was determined to be of very low safety significance because the reactivity addition was not of an appreciable amount to challenge the safety systems or operating limits, and operators were able to return reactor power to desired levels in a controlled manner (Section 1R14).

B. Licensee Identified Violations

A violation of very low significance was identified by the licensee and has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7 of this report.

Report Details

Summary of Plant Status

Diablo Canyon Units 1 and 2 began this inspection period at 100 percent power.

On January 14, 2002, operators reduced Unit 2 power to 55 percent to search for a main condenser saltwater leak. Once the testing was completed, operators returned the unit to 100 percent power on January 20.

On February 9, 2002, feedwater regulating Valve FCV-540 failed closed on Unit 2. Operators responded to the failed closed valve and initiated a manual reactor trip on Unit 2. Operators then stabilized the reactor in Mode 3 before restarting the Unit 2 reactor and returning to 100 percent power on February 12.

On February 14, 2002, the licensee determined that all steam generator water level - low low reactor trip setpoints were nonconservative as a result of an unaccounted steam generator narrow range level measurement phenomenon. On the same day, operators reduced power to 58 percent on Units 1 and 2 to regain conservatism on the steam generator water level - low low reactor trip setpoints. Reactor power for Unit 2 was further reduced to 50 percent in order to maintain a quadrant power tilt ratio below 1.02. The licensee increased the steam generator water level - low low reactor trip setpoints from 7.2 percent to 15 percent narrow range water level to account for the level measurement phenomenon. On February 15, 2002, operators returned Units 1 and 2 to 100 percent power. This event is the subject of NRC Special Inspection 50-275/02-07; 323/02-07.

Units 1 and 2 continued to operate at a nominal 100 percent power until the end of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R04 Equipment Alignments (71111.04)

Partial System Walkdowns

.1 Unit 1 and 2 Atmospheric Dump Valves (ADVs)

a. Inspection Scope

On January 14, 2002, the inspectors reviewed the system alignment of portions of the Unit 2 ADVs. The inspectors reviewed the main component and the air supply lineups and checked for absence of leakage and functionality of seismic supports. The inspectors used the following documents during the inspection:

- Action Request (AR) 0547478, “Potential SISI Concern for Welding Machine U-II Elev. 140'”

- Final Safety Analysis Report Update, Section 10.3, “Main Steam System,” Revision 14
- Design Criteria Memorandum S-4, “Turbine Steam Supply System,” Revision 19
- Drawing OVID 107725, “Instrument Air/Service Air,” Sheet 19, Revision 78 and Sheet 48, Revision 47

b. Findings

On January 14, 2002, the inspectors walked down two of the ADVs for Unit 2, which were located on the 140 foot elevation of the auxiliary building. During this walk down, the inspectors noticed an unsecured, portable electric welding machine stored underneath the ADV MS-2-PCV-21. The inspectors observed the distance from the welding machine to the instrument/non-Class 1 nitrogen backup air and backup Class 1 air bottle supply lines for MS-2-PCV-21 to be approximately 8 inches. The inspectors promptly notified the shift manager, who had the transient equipment removed to a safe location and initiated AR A0547478 to document and review the seismically induced system interaction (SISI) potential. An evaluation of the SISI concern was performed by the licensee’s engineering staff and determined the SISI concern to be valid.

The ADVs were designated as Valves PCV-19, -20, -21, and -22 on each unit. The ADVs were 8-inch air-operated valves located upstream of the main steam isolation valves. They had a combined capacity of 10 percent of rated reactor power. The licensee credited these valves in several design-basis accidents and transients. The valves were normally powered by instrument air. In the event that instrument air was lost, the backup non-Class 1 nitrogen supply automatically supplied pressure to operate the ADVs. If both the instrument air and backup non-Class 1 nitrogen supply were unavailable, the backup Class 1 air bottles supplied air to operate the ADVs.

The inspectors evaluated the as-found condition of the welding machine and determined that the unsecured proximity of the welding machine to the normal and safety-related backup air supply to ADV MS-2-PCV-21 represented a credible impact on safety in that the ADV could not be remotely operated due to loss of air supply in a seismic event. According to Design Criteria Memorandum S-4, the ADV’s safety-related function is to provide a controlled cool down in the event of a Hosgri earthquake or a steam generator tube rupture. Subsequently, the other three ADVs on the other steam generators could be used to adequately cool the reactor coolant system in the event that ADVs were the only option for secondary cooling.

This issue was more than minor due to the credible impact on safety because the atmospheric dump valve could not be remotely operated during the loss of air supply in a seismic event. This issue was determined to be of very low safety significance (Green) because the other three ADVs on the steam generators could be used to adequately cool the reactor coolant system.

Technical Specification 5.4.1.a states, in part, that written procedures be implemented covering applicable procedures recommended in Appendix A of Regulatory Guide 1.33,

Revision 2, February 1978. Appendix A of Regulatory Guide 1.33, Section 1, identifies that the licensee shall have administrative procedures for equipment control. Procedure AD4.ID3, "SISIP Housekeeping Activities," Revision 4A, Section 5.1.1, required that transient equipment not create a potential SISI. Contrary to the above, on January 14, 2002, the inspectors discovered an unsecured portable welding machine staged approximately 8 inches from the normal and Class 1 air supply lines for Unit 2 ADV MS-2-PCV-21. This violation is being treated as a noncited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 323/2001011-01). This violation is in the corrective action program as AR A0547478.

.2 Safety Injection Pump 1-1

a. Inspection Scope

On March 13, 2002, with Safety Injection Pump 1-2 in a maintenance outage window, the inspectors verified proper system alignment of Safety Injection Pump 1-1 and its associated valves. The inspectors observed valve alignment, labeling, lubrication, ventilation, seismic supports, and absence of obstructions that may prevent the pump from performing its safety function. The inspectors also considered what electrical power was available and the proper working condition of associated electrical equipment. Cooling water for pump bearing cooling was also evaluated for proper working condition. The following documents were used during the inspection:

- Procedure OP B-3A:II, "Safety Injection System Alignment Verification for Plant Startup," Revision 17

- Drawing OVID 106709, "Safety Injection"
  - Sheet 3, Revision 46
  - Sheet 4, Revision 48

b. Findings

No findings of significance were identified.

.3 Residual Heat Removal Pump 1-1

a. Inspection Scope

On March 14, 2002, with Residual Heat Removal Pump 1-2 in a maintenance outage window, the inspectors reviewed the system alignment of Residual Heat Removal Pump 1-1 and its associated valves. The inspectors observed valve alignment, labeling, lubrication, ventilation, seismic supports, and absence of obstructions that may prevent the pump from performing its safety function. The inspectors also reviewed where the electrical power was available and the proper working condition of associated electrical equipment. Cooling water for pump bearing cooling was also evaluated for proper working condition. The following documents were used during the inspection:

- Procedure OP B-2:I, “RHR System Alignment Verification for Plant Startup,” Revision 15A
- Drawing OVID 106709, “Safety Injection,” Sheet 4, Revision 48
- Drawing OVID 106710, “Residual Heat Removal,” Sheet 2, Revision 31

b. Findings

No findings of significance were identified.

.4 Complete System Walkdowns

a. Inspection Scope

On January 22, 2002, the inspectors performed a complete system walkdown of Diesel Emergency Generator 1-1 while Diesel Emergency Generator 1-2 was in a five day maintenance outage. During the walkdown, the inspectors reviewed the system for correct alignment, evaluated the condition of support systems, reviewed outstanding deficiencies associated with the system, and compared the actual system with descriptions in procedures, drawings, and vendor manuals. The following documents were used during the inspection:

- Procedure OP J-6B:I, “Diesel Generator 1-1 Make Available,” Revision 23
- Drawing OVID 106721, “Diesel Engine - Generator,”
  - Sheet 3, Revision 37
  - Sheet 4, Revision 37
  - Sheet 5, Revision 27
  - Sheet 6, Revision 40
  - Sheet 7, Revision 29
- ARs
  - A0500952, “U-104' Floor Drain Piping Leaks Into DEG RM 1-1"
  - A0511014, “Evaluate DG 1-1 Breaker Reverse Power Trip”
  - A0504829, “Modification of DG 11 Control Panel Top Support (GQD11)”
  - A0527202, “OP J-6B:I, J-6B:II, and J-6B:III Need to be Revised”
  - A0548763, “OP J-6B:I, J-6B:II, and J-6B:III Requested Enhancements”

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Observations

a. Inspection Scope

The inspectors performed fire protection walkdowns to assess the material condition of plant fire detection and suppression, fire seal operability, and proper control of transient combustibles. The inspectors used Section 9.5 of the Final Safety Analysis Report Update as guidance. The inspectors reviewed the suppression equipment and fire doors to verify compliance with regulatory requirements and conditions specified in Procedures STP M-69A, "Monthly Fire Extinguisher Inspection," Revision 31B, STP M-69B, "Monthly CO2 Hose Reel and Deluge Valve Inspection," Revision 14, and STP M-70C, "Inspection/Maintenance of Doors," Revision 6. Specific risk-significant areas inspected included:

- Units 1 and 2 vital 4 kV switchgear rooms
- Units 1 and 2 vital battery rooms
- Units 1 and 2 emergency core cooling pump rooms
- Units 1 and 2 intake structure
- Units 1 and 2 diesel engine generator rooms
- Units 1 and 2 component cooling water heat exchanger (CCWHE) rooms

b. Findings

No findings of significance were identified.

.2 Temporary Instruction 2515/146, "Hydrogen Storage Locations"

a. Inspection Scope

The inspectors performed fire protection walkdowns of the hydrogen storage locations to verify licensee compliance with applicable codes and commitments regarding hydrogen storage and to ensure that unrecognized risk-significant conditions did not exist. The inspectors used Temporary Instruction 2515/146, "Hydrogen Storage Locations," and Section 9.5 of the Final Safety Analysis Report Update as guidance. The inspectors reviewed AR A0527786, "Hydrogen Facility Evaluation," and Calculation M-1053, "Evaluate Effect of Hydrogen Storage Tank Explosion."

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

Annual Review

a. Inspection Scope

On January 9, 2002, the inspectors observed and reviewed the maintenance outage window associated with CCWHE 2-2. The inspectors reviewed the test acceptance criteria for CCWHE 2-2 and compared it to the design bases. The test results for CCWHE 2-2 were then evaluated against its test criteria. The inspectors also reviewed the test frequency for CCWHE 2-2, as well as, test conditions as compared to design conditions. Part of this review included observation of the accuracy, calibration, and range of instruments used during the tests. The inspectors also observed the amount of fouling that was found in CCWHE 2-2. The following documents were utilized during the inspection:

- Procedure STP M-26, "ASW System Flow Monitoring," Revision 24
- Section 9.2.7, "Auxiliary Saltwater System, "Final Safety Analysis Report Update," Revision 14
- Calculation M-988, "ASW System Flows, Pressures and Temperatures," Revision 6
- Report WCAP-14282, "Evaluation of Peak CCW Temperature Scenarios for Diablo Canyon Units 1 and 2," Revision 1

b. Findings

No findings of significance were identified.

1R11 Operator Requalification (71111.11)

a. Inspection Scope

The inspectors witnessed operator performance in the simulator during routine training and requalification examinations. The inspectors also attended the crew and individual debriefs to determine if the evaluators critically assessed operator performance. On January 16, 2002, the inspectors observed a simulator scenario associated with: (1) failure of a reactor coolant system cold temperature instrument, (2) overcurrent trip of a centrifugal charging pump, (3) loss of condenser vacuum followed by a reactor trip, and (4) loss of all auxiliary feedwater and initiation of reactor coolant system feed and bleed.

The inspectors used Procedures OP AP-17 "Loss of Charging," Revision 21, EOP E-0, "Reactor Trip or Safety Injection," Revision 24, and FR-H.1 "Response to Loss of Secondary Heat Sink," Revision 16.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

.1 Routine Reviews

a. Inspection Scope

The inspectors reviewed the licensee's Maintenance Rule implementation for equipment performance problems. The inspectors assessed whether the equipment was properly placed into the scope of the rule, whether the failures were properly characterized, and whether goal setting was recommended, if required. Procedure MA1.ID17, "Maintenance Rule Monitoring Program," Revision 8, was used as guidance. The inspectors reviewed the following ARs:

- A0548053, Unit 2 Containment Isolation Valve CS-2-9001B goal setting review
- A0549019, Unit 1 Auxiliary Building Fan E-6 tripped during testing
- A0551479, Unit 1 Valve SI-1-8802B body-to-bonnet leakage
- A0550047, Unit 1 Auxiliary Saltwater Pump 1-2 excessive packing leakage
- A0551919, Unit 1 Overpressure protection function goal setting review
- A0551921, Unit 2 Containment Fan Cooler Unit 2-4 goal setting review

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

Risk Assessments

a. Inspection Scope

The inspectors reviewed daily work schedules and compensatory measures to confirm that the licensee had performed proper risk management for routine and emergent work. The inspectors verified that risk assessments were performed according to their procedures and the licensee had properly used their risk assessment tools. The inspectors reviewed the licensee's entry into appropriate risk categories, preservation of key safety functions, and implementation of work controls. The inspectors used Procedure AD7.DC6, "On-line Maintenance Risk Management," Revision 6, as guidance. The inspectors specifically observed the following work activities during the inspection period:

- CCWHE 2-2 maintenance outage window on January 9, 2002

- Diesel Emergency Generator 2-1 maintenance outage window on February 5, 2002

- Centrifugal Charging Pump 1-1 maintenance outage window on February 26, 2002
- Diesel Emergency Generator 2-3 maintenance outage window on February 26, 2002
- Controlled burn of brush under the startup power transmission lines on March 4, 2002
- Testings of Breaker 742 in the 500 kV switchyard with Residual Heat Removal Pump 1-2 in a maintenance outage window on March 14, 2002

b. Findings

No findings of significance were identified.

1R14 Personnel Performance Related to Non-Routine Plant Evolutions and Events

.1 Inadvertent Increase in Unit 2 Reactor Power

a. Inspection Scope

The inspectors evaluated operator response to an inadvertent increase in Unit 2 reactor power that occurred on December 28, 2001. The inspectors reviewed the licensee evaluation of AR A0546623 and used Procedures OP L-4, “Normal Operation at Power,” Revision 39, CAP E-1, "Primary Sampling Systems," Revision 30, and OP B-9:I, “Primary Sampling System - Make Available and Place in Service,” Revision 7, to support this inspection.

b. Findings

A violation of Technical Specification 5.4.1.a was identified for failure to follow procedures for power operations and chemistry. On December 28, 2001, operators failed to place two pressurizer backup heaters in service while sampling the Unit 2 pressurizer steam space. As a result, a dilution of the reactor coolant system occurred (reducing boric acid concentration) which added positive reactivity to the reactor, increasing reactor power above 100 percent for approximately 2 ½ hours. Control rods automatically stepped in to reduce reactor power and inserted Control Bank D nine steps into the core. The maximum reactor power achieved was 100.3 percent, well below the automatic reactor trip level of 109 percent. Operators restored reactor power to 100 percent by adding boric acid via the makeup system and restored the control rods to the original full out position. The operators initiated AR A0546623 to place this item in the corrective action system.

Licensee investigation revealed that operators failed to place two pressurizer backup heaters in place as required by the normal Operating Procedure OP L-4 and sample System Procedure OP B-9:I. Operators did not reference these procedures during the

sampling evolution as these procedures were not required by licensee policy to be in hand. Chemistry personnel used Procedure CAP E-1, to direct the proper valve manipulations to obtain the reactor coolant sample. However, Procedure CAP E-1 did not contain precautions and/or limitations on plant operation when obtaining reactor coolant samples, nor did Procedure CAP E-1 reference Procedures OP L-4 or OP B-9:I. The licensee noted that AR A0484289 discussed a similar occurrence of failing to place pressurizer backup heaters in service during sampling of the pressurizer steam space that occurred in April 1999. Corrective action for the occurrence described in AR A0482289 required applicable procedures to be revised. The licensee revised Procedures OP L-4 and OP B-9:I, but not Procedure CAP E-1 to address this previous issue. The inspectors concluded that Procedures OP L-4 and OP B-9:I provided sufficient guidance to have prevented this event.

Technical Specification 5.4.1.a requires the implementation of procedures listed in Regulatory Guide 1.33, Appendix A. Procedures OP L-4, Section 5.4 and OP B-9:I, stated that when pressurizer steam space sampling to the volume control tank was initiated, two backup pressurizer heaters were to be placed in service. On December 28, 2001, operators initiated pressurizer steam space sampling to the volume control tank without placing two backup pressurizer heaters into service. This resulted in a dilution of the volume control tank that increased reactor power above 100 percent for approximately 2 ½ hours. This violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 323/2001011-02). This violation is in the licensee's corrective action program as AR A0546623.

This violation was more than minor because it had credible impact on safety due to the unplanned change in reactivity. This issue was determined to be of very low safety significance (Green) because the reactivity addition was not of an appreciable amount to challenge the safety systems or operating limits, and operators were able to return reactor power to desired levels in a controlled manner.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed operability evaluations and supporting documents to determine if the associated systems could meet their intended safety functions despite the degraded status. The inspectors reviewed the applicable Technical Specification Bases and Final Safety Analysis Report Update sections in support of this inspection. The inspectors reviewed the following ARs:

- Units 1 and 2, A0507761, Evaluate auxiliary building vent system shutdown
- Units 1 and 2, A0549031, S/G level error prompt operability assessment
- Units 1 and 2, A0552297, Evaluate need for response time testing of positive rate trip
- Unit 1, A0550391, Valve FCV-540 chattering

- Unit 2, A0547538, Structural material purchase classification discrepancies
- Unit 2, A0551106, Centrifugal Charging Pump 2-1 low bearing oil

In addition, the inspectors reviewed Operability Evaluation, OE 02-01, "Operability With Nonconservative Assumptions In Calculations Used For Steam Generator Water Level - Low Low Setpoints," Revision 0.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed postmaintenance tests for selected risk-significant systems to verify their operability and functional capability. As part of the inspection process, the inspectors witnessed and/or reviewed the postmaintenance test acceptance criteria and results. The test acceptance criteria was compared to the Technical Specifications and the Final Safety Analysis Report Update for the Diablo Canyon Power Plant. Additionally, the inspectors reviewed that the test was adequate for the scope of work, the test was performed as prescribed, jumpers and test equipment were properly removed after the test, and test equipment range, accuracy, and calibration were consistent for the application. The following are selected corrective maintenance activities reviewed by the inspectors:

- Unit 1 ADV MS-1-PCV-22, Valve actuator diaphragm replacement performed on January 10, 2002
- Unit 1 Centrifugal Charging Pump 1-1 maintenance outage window on February 26, 2002
- Unit 2 Diesel Emergency Generator 2-3 maintenance outage window on February 26, 2002
- Unit 2 Diesel Emergency Generator 2-2 maintenance outage window on March 11 to March 13, 2002
- Unit 2 Eagle 21 Rack 13 card replacement per Work Order C0176281
- Unit 2 Auxiliary Feedwater Pump 2-3 maintenance outage window on March 29, 2002

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

Routine Observations

a. Inspection Scope

The inspectors evaluated several routine surveillance tests to determine if the licensee complied with the applicable Technical Specification requirements to demonstrate that equipment was capable of performing its intended safety functions and operational readiness. The inspectors performed a technical review of the procedure, witnessed portions of the surveillance test, and reviewed the completed test data. The inspectors evaluated the licensee's performance of the following surveillance tests:

- Procedure STP V-3R3, "Exercising Steam Generator Blowdown Inside Containment Isolation Valves FCV-760, FCV-761, FCV-762, FCV-763," Revision 5 on January 10, 2002, for Unit 2

- Procedure STP V-3H7, "Exercising Valves FCV-364 and FCV-365, RHR Heat Exchanger CCW Return Valves," Revision 12, on January 9, 2002 for, Unit 1

- Procedure STP M-9A, "Diesel Engine Generator Routine Surveillance Test," Revision 59, on February 27, 2002, for Unit 2

- Procedure STP M-75, "4KV Vital Bus Undervoltage Relay Calibration," Revision 27, on March 19, 2002, for Unit 2

- Procedure STP I-2B, "Nuclear Power Range Channel Analog Channel Operational Test," Revision 28, on March 28, 2002, for Unit 2

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following temporary modifications/plant jumpers. The inspectors reviewed the 10 CFR 50.59 screenings and verified that the applicable drawings were annotated. The inspectors also observed the required tag information and placement and, if required, that transient combustible administrative controls were properly implemented. The temporary alterations were performed in accordance with Procedure CF4.ID7, "Temporary Modifications - Plant Jumpers and Measuring and Test Equipment," Revision 8.

- Unit 1, Battery 1-6, Cell 8, jumpered out

- Unit 2 EDUPS2, Reconfigure battery to support Appendix R lighting for pipe rack area

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector performed an in-office review of Revision 24 to the Diablo Canyon Power Plant Emergency Plan, submitted November 2, 2001, against 10 CFR 50.54(q) to determine if the revision decreased the effectiveness of the emergency plan.

b. Findings

No findings of significance were identified.

1EP6 Emergency Preparedness Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors witnessed the emergency preparedness drill conducted on February 7, 2002. The challenging scenario consisted of a loss of condenser vacuum, a loss of auxiliary feedwater, a loss of high-head injection, initiation of feed-and-bleed, and establishing condensate flow to recover the secondary heat sink. The inspector witnessed the licensee's performance in the control room (simulator) and the Technical Support Center and attended the self critique of the drill.

The inspectors reviewed several procedures that specified notification and classification requirements, including: (1) EP G-1, "Emergency Classification and Emergency Plan Activation," Revision 30A; (2) EP G-2, "Activation and Operation of the Interim Site Emergency Organization," Revision 24; (3) EP G-3, "Notification of Off-Site Agencies and Emergency Response Organization Personnel," Revision 36; and (4) EP RB-10, "Protective Action Recommendations," Revision 7A.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection (PP)

3PP1 Access Authorization (71130.01)

a. Inspection Scope

The inspector performed the following inspection activities:

- Reviewed licensee event reports (LERs) and safeguards event logs to identify problems in the access authorization program
- Reviewed procedures, audits, and self-assessments for behavior observation, access authorization, fitness-for-duty, supervisor and escort training, and requalification training
- Interviewed six supervisors/managers and six individuals who had escorted visitors into the protected and/or vital areas to determine their knowledge and understanding of their responsibilities in the behavior observation program
- Reviewed condition reports, LERs, safeguards event logs, audits, selected security event reports, and self-assessments for the licensee's access authorization program to determine the licensee's ability to identify and resolve problems

b. Findings

No findings of significance were identified.

3PP2 Access Control (71130.02)

a. Inspection Scope

The inspector performed the following inspection activities:

- Reviewed LERs and safeguards event logs to identify problems with access control equipment
- Reviewed procedures and audits for testing and maintenance of access control equipment and for granting and revoking unescorted access to protected and vital areas
- Interviewed security personnel concerning the proper operation of the explosive and metal detectors, X-ray devices, and key card readers
- Observed licensee testing of access control equipment and the ability of security personnel to control personnel, packages, and vehicles entering the protected area
- Reviewed procedures to verify that a program was in place for controlling and accounting for hard keys to vital areas
- Reviewed the licensee’s process for granting access to vital equipment and vital areas to authorized personnel having an identified need for that access

- Reviewed condition reports, LERs, safeguards event logs, audits, selected security event reports, and self assessments for the licensee's access control program in order to assess the licensee's ability to identify and resolve problems with the access control program

- Interviewed key security department and plant support personnel to determine their knowledge and use of the corrective action reports and resolution of problems regarding repair of security equipment

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes (71130.04)

a. Inspection Scope

The inspector completed the following actions:

- Reviewed the Physical Security Plan, Change 19 to Revision 18 dated March 13, 2001, to determine if requirements of 10 CFR 50.54 (p) had been met

- Reviewed the safeguards event logs from January 2001 to February 2002, and interviewed security personnel to determine their knowledge and use of the corrective action program and resolution of problems as it relates to making changes to the licensing documents

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

40A1 Performance Indicator Verification (71151)

.1 Reactor Safety Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the following performance indicators for the period from the first quarter of 2001 through the fourth quarter of 2001 to assess the accuracy and completeness of the indicator. The inspectors reviewed plant operating logs and licensee monthly operating reports to support this inspection. The inspectors used Nuclear Energy Institute (NEI) 99-02, “Regulatory Assessment Performance Indicator Verification,” Revision 2, as guidance for this inspection.

- Units 1 and 2 Reactor scrams (trips)

- Units 1 and 2 Reactor scrams with a loss of normal heat removal
- Units 1 and 2 Unplanned transients
- Units 1 and 2 Emergency AC power unavailability

b. Findings

No findings of significance were identified.

.2 Physical Protection Performance Indicator Verification

a. Inspection Scope

The inspector reviewed the program for collection and submittal of performance indicator data. Specifically, a random sampling of security event logs and corrective action reports were reviewed for the following program performance areas:

- Protected area security equipment
- Personnel screening program performance
- Fitness-for-duty program performance

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

(Closed) LER 50-323/2001-001-00: Unattended weapon. For 20 minutes, on March 18, 2001, a security officer left his contingency weapon unattended inside a two-room security response position. During this time, a second security officer was inside the adjacent room of the security response position. Even though the unattended weapon was out of view of the second officer, anyone entering the response position would likely have been heard and identified. After 20 minutes, the second officer assumed custody of the weapon and all ammunition. The root cause of this event was personnel error and inattention to detail. The LER addressed corrective actions to preclude similar events in the future. The LER was reviewed and no findings of significance were identified. The inspector verified the licensee's corrective actions.

40A5 Other

Evaluation of Diablo Canyon Safety Condition in Light of Financial Conditions

a. Inspection Scope

Because of the licensee’s financial condition, Region IV initiated special review processes for Diablo Canyon. The resident inspectors continued to evaluate the following factors to determine whether the financial condition and power needs of the station impacted plant safety. The factors reviewed included: (1) impact on staffing, (2) corrective maintenance backlog, (3) corrective action system backlogs, (4) changes

to the planned maintenance schedule, (5) reduction in outage scope, (6) availability of emergency facilities and operability of emergency sirens, and (7) grid stability (i.e., availability of offsite power to the switchyard, status of the operating reserves especially at the onset of rolling blackouts, and main generator Volt-Ampere reactive loading).

Additionally, the resident inspectors observed the energy supply and operating reserves available in the California market. Inspectors have also increased attention to areas such as employee morale, licensee activities, and specific technical issues.

b. Findings

No findings of significance were identified.

40A6 Management Meetings

Exit Meeting Summary

The resident inspection results were presented on April 11, 2002 to Mr. David Oatley, Vice President - Diablo Canyon Operations, and other members of licensee management. The licensee acknowledged the finding presented. Discussion of region-based inspection results are described in the following paragraphs.

For the emergency preparedness inspection, the inspector presented the results to Mr. Mark Lemke, Emergency Preparedness Manager, and other members of licensee management during a telephonic exit interview conducted on February 11, 2002. The licensee acknowledged the findings presented.

For the physical security inspection, the inspector presented the results to Mr. David Oatley, Vice President - Diablo Canyon Operations, and other members of licensee management on March 22, 2002. The licensee's management acknowledged the inspection findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. One document, WCAP-14282, "Evaluation of Peak CCW Temperature Scenarios for Diablo Canyon Units 1 and 2," Revision 1, was identified to be proprietary. However, no proprietary information is contained in the inspection report.

40A7 Licensee Identified Violations

The following findings of very low significance were identified by the licensee and were violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

NCV Tracking Number	Requirement Licensee Failed to Meet
323/2001011-03	Technical Specification 5.4.1.a requires the implementation of procedures listed in Regulatory

Guide 1.33, Appendix A. Regulatory Guide 1.33 lists procedures for surveillance tests. Procedure STP I-33, "Reactor Trip and Engineered Safety Feature Response Time Test," Revision 6, partially implemented this requirement and stated in Section 3.3.3.b that replacement of an Eagle-21 card required time response testing of the appropriate channels. Contrary to the above, the licensee replaced Card 2 of Rack 13 of the Unit 2 Eagle 21 system on September 18, 2001, but did not perform time response testing as a postmaintenance test and returned the component to service. This card affected reactor trip and safety injection setpoints for Loop 3 reactor coolant system temperature, pressurizer pressure, and pressurizer level. Upon discovery, the time response test was successfully performed on March 7, 2002. This event is described in the licensee's corrective action program, reference AR A0550656. This is being treated as an NCV.

This violation was more than minor because it had credible impact on safety due to the card affecting several mitigating systems and actuations. This issue was determined to be of very low safety significance (Green) because when the postmaintenance testing was conducted, the applicable channels passed.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Becker, Station Director
C. Belmont, Manager, Nuclear Quality Services
D. Christensen, Engineer, Nuclear Quality Analysis and Licensing
W. Drake, Shift Supervisor, Security
S. Fridley, Director, Site Services
J. Hays, Director Maintenance Services
J. Hubble, Shift Supervisor, Security
M. Lemke, Emergency Preparedness Manager
L. Lunsford, Operations Supervisor, Security
D. Malone, Regulatory Services Engineer
D. Miklush, Director, Engineering Services
P. Nugent, Manager, Regulatory Services
D. Oatley, Vice President, Diablo Canyon, Operations
R. Prigmore, Supervisor, Nuclear Quality Services
P. Roller, Manager, Operations
B. Ryan, Supervisor, Access Authorization and Fitness-for-Duty
R. Todaro, Manager, Security Services

J. Tompkins, Director, Nuclear Quality Analysis and Licensing
L. Womack, Vice President, Nuclear Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed During this Inspection

323/2001011-01	NCV	Failure to limit the proximity of transient equipment near safety-related systems due to seismic interaction concerns (Section 1R4)
323/2001011-02	NCV	Exceeding the licensed power limit due to a failure to follow procedures (Section 1R14)
323/2001011-03	NCV	Failure to perform adequate postmaintenance test of a reactor protection system analog input card (Section 4OA7)

Previous Items Closed

50-323/2001-001-00	LER	Unattended weapon. (Section 4OA3)

LIST OF ACRONYMS USED

ADV	atmospheric dump valve
AR	action request
CCWHE	component cooling water heat exchanger
CFR	Code of Federal Regulations
kV	kilovolt
LER	licensee event report
NEI	Nuclear Energy Institute
NCV	noncited violation
NRC	Nuclear Regulatory Commission
SISI	seismically induced systems interaction