UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

October 30, 2001

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, CA 93424

SUBJECT: DIABLO CANYON INSPECTION REPORT 50-275/01-07; 50-323/01-07

Dear Mr. Rueger:

On October 6, 2001, the NRC completed an inspection at your Diablo Canyon Nuclear Power Plant, Units 1 and 2, facility. The enclosed report documents the inspection findings, which were discussed on September 25, September 26, and October 10, 2001, with members of your staff as described in Section 4OA6.

This inspection examined 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. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has identified an issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that a violation is associated with this issue. This violation is being treated as a noncited violation consistent with Section VI.A of the Enforcement Policy. This noncited violation is described in the subject inspection report. If you contest the violation or significance of the noncited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Diablo Canyon, Units 1 and 2, facility.

Pacific Gas and Electric Company operated under voluntary bankruptcy proceedings during this inspection period. The NRC has exercised communications channels to better understand your planned and implemented actions, especially as they relate 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, thus far, assured.

In response to these conditions, there will continue to be two differences in how the Region communicates its inspection findings. First, we will continue the 6-week periodicity of our

integrated inspection reports (the other reactors in Region IV implemented a quarterly report frequency, with the exception of San Onofre Nuclear Generating Station). Second, the description of the scope and findings of the individual inspection activities may be more detailed. This is being done to keep the public more fully informed of the breadth and depth of the NRC's inspection and oversight activities.

Since September 11, 2001, Diablo Canyon has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to Pacific Gas and Electric Company. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

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/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

William B. Jones, Chief
Project Branch E
Division of Reactor Projects

Docket: 50-275
50-323
License: DPR-80
DPR-82

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NRC Inspection Report
50-275/01-07; 50-323/01-07

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket Nos:	50-275 50-323
License Nos:	DPR-80 DPR-82
Report No:	50-275/01-07 50-323/01-07
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:	August 26 through October 6, 2001
Inspectors:	D. L. Proulx, Senior Resident Inspector T. W. Jackson, Resident Inspector C.J. Paulk, Senior Reactor Inspector, Region IV J. R. Whittemore, Senior Reactor Inspector, Region IV W.A. Maier, Senior Emergency Preparedness Specialist, Region IV
Approved By:	W. B. Jones, Chief, Projects Branch E Division of Reactor Projects

ATTACHMENT: Supplemental Information

SUMMARY OF FINDINGS

IR 05000-275-01-07, IR 05000-323-01-07, 8/26 to 10/6/01, Pacific Gas and Electric Co., Diablo Canyon Nuclear Power Plant Units 1 and 2; Integrated Resident & Regional Report; Maint. Risk and Control

This report covers a 7-week routine resident, emergency preparedness, and engineering inspections. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using IMC 0609 "Significance Determination Process" (SDP). 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. Findings for which the SDP does not apply are indicated by No Color or by the severity level of the applicable violation.

A. Inspector Identified Findings

Cornerstones: Initiating Events, Barrier Integrity

Green. The inspectors identified a violation of Technical Specification 5.4.1.a for the failure to initiate an operability assessment for a broken bonnet stud on Unit 2 Atmospheric Dump Valve PCV-21. Procedure OM7.ID12, "Operability Determination," Revision 4C, Section 2.4.3, required the licensee to perform a prompt operability assessment within 72 hours of identifying a degraded condition. In this case the licensee identified the broken stud on August 31, 2001; however, the licensee failed to evaluate operability of Valve PCV-21 or the other seven atmospheric dump valves until September 6 (approximately 160 hours later). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the corrective action program as Action Request A0542300. The inspectors also expressed concern with the effectiveness of the corrective action program in this instance. Personnel failed to recognize a significant condition adverse to quality and have it promptly corrected.

The inspectors evaluated this issue using the Significance Determination Process. The inspectors determined that the multiple stud and nut failures represented a credible impact on safety in that their failure could have resulted in the body-to-bonnet separation of Valve PCV-21. The failure would have been similar to a failed open atmospheric dump or secondary safety relief valve. The inspectors considered that failure of the degraded studs could result in a loss of the main steam boundary and a direct release path following a postulated steam generator tube rupture. Subsequently, the licensee completed a metallurgical analysis that demonstrated that the remaining studs and nuts had sufficient strength, along with the stud configuration around the valve bonnet, to prevent failure of Valve PCV-21. No immediate operability concerns were identified for any of the other atmospheric dump valves. Based on the determination that the valve body and bonnet would not have separated, the inspectors concluded this issue had very low safety significance (Section 1R13).

Report Details

Summary of Plant Status

Diablo Canyon Unit 1 operated at essentially 100 percent power throughout this inspection period.

Diablo Canyon Unit 2 began this inspection period at 100 percent power. On September 14, 2001, operators reduced power on Unit 2 to 30 percent to replace one of three reactor coolant flow transmitters on Loop 4. While the Unit was at reduced power, maintenance personnel also searched for a condenser tube leak and repaired a lubricating oil leak on Main Feedwater Pump 2-2. On completion of the maintenance activities, operators returned Unit 2 to 100 percent power on September 15, 2001. Unit 2 continued to operate at essentially 100 percent power until the end of this inspection period.

1. REACTOR SAFETY

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

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

From September 10 through October 4, 2001, the inspectors reviewed the design features and procedures for protecting mitigating systems from the adverse affects of Pacific Ocean storms. These storms, in conjunction with kelp and other aquatic plants, can obstruct the intake traveling screens, causing a trip of the circulating water pumps and loss of the main condenser. In the past, these storms, also known as "kelp attacks," have caused the shutdown of both units within a short period of each other with a loss of the normal heat sink. The NRC performed a supplemental inspection, documented in NRC Supplemental Inspection Report 50-275/00-13, to evaluate your root cause analyses and corrective actions associated with three scrams that had a loss of normal heat removal. The purpose of this adverse weather protection inspection is to review equipment, procedures, training, and overall plant preparation for kelp attacks.

During this inspection, the inspectors looked at the following areas: kelp management, bar racks, traveling screens, screen wash pumps, kelp grinder, refuse pumps, intake building, circulating water pump trip circuitry, condenser fouling, training, and related procedures. The following paragraphs describe the inspection process.

Kelp Management: The inspectors reviewed the management tools for determining appropriate plant actions in the likely event of a kelp attack. The management tool used to predict the impact of kelp attacks uses swell energy, kelp loading, and other factors to suggest appropriate actions for the control room and intake personnel. The inspectors also reviewed efforts to control kelp growth near the intake area and the timeliness of dispensing intake/ocean status to plant management and control room personnel.

Bar Racks and Traveling Screens: The bar racks and traveling screens prevent solid material (kelp, trash, etc.) from being ingested into the circulating water system. The

inspectors walked down the bar racks and traveling screens at the intake structure to observe their operational readiness. Part of the walkdown included a review of the Unit 2 traveling screen drive upgrades.

Screen Wash Pumps: The screen wash pumps provide spray water to remove solid material off of the traveling screens. The inspectors walked down the screen wash pumps to observe their operational readiness. Additionally, the inspectors reviewed open corrective action items to determine if appropriate steps are being taken to ensure proper operation of the screen wash pumps.

Kelp Grinder: The kelp grinder reduces kelp to smaller pieces so that it may be pumped back to the ocean. The inspectors walked down the kelp grinder to determine its operational readiness.

Refuse Pumps: The refuse pumps' move captured solid materials from the traveling screens back to the ocean. The inspectors walked down the refuse pumps to observe their operational readiness.

Intake Building: The inspectors walked down the intake building to determine adequate material and operational condition of pumps, valves, pipes, and other mechanical/electrical equipment.

Circulating Water Pump Trip Circuitry: The circulating water pumps push ocean water from the intake bays, through the main condensers, and out the plant discharge. The inspectors discussed the circulating water pump trip circuitry with plant staff to determine its proper operation and design.

Condenser Fouling: The main condenser for each unit provides a normal heat sink for plant operation. Biofouling can degrade condenser performance such that it may not provide a reliable heat sink. The inspectors talked with plant staff regarding condenser fouling and reviewed the current amount biofouling, its rate of increase, and future measures to combat biofouling.

Training: The inspectors reviewed the type of training that operators have received for kelp attacks. Included in the review were classroom instruction material and simulator scenarios.

Procedures: The inspectors reviewed the following procedures to determine their adequacy for dealing with kelp attacks:

- Procedure OP O-28, "Intake Management," Revision 7
- Procedure OP AP-7, "Degraded Condenser," Revision 26
- Procedure OP AP-25, "Rapid Load Reduction," Revision 4
- Procedure AR PK13-01, "Bar Racks/Screens," Revision 16

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04)

Partial System Walkdowns

.1 Auxiliary Feedwater Pump 1-2

a. Inspection Scope

On September 13, 2001, with Auxiliary Feedwater Pump 1-3 inoperable for preventive maintenance, the inspectors performed a partial system walkdown of support systems associated with Auxiliary Feedwater Pump 1-2. The inspectors reviewed valve alignment and checked for absence of leakage; verified electric power lineup; observed proper labeling, lubrication, and ventilation; and checked the functionality of seismic supports. The inspectors used the following documents during the inspection:

- Procedure OP D-1:II, "Auxiliary Feedwater System - Alignment Verification for Plant Startup," Revision 26
- Drawing 106703, Sheet 3, "Feedwater," Revision 56

b. Findings

No findings of significance were identified.

.2 Vital 125 Vdc Batteries 1-1, 1-2, and 1-3

a. Inspection Scope

On September 20, 2001, with Battery Charger 1-21 undergoing corrective maintenance to replace degraded terminal lugs, the inspectors performed a partial system walkdown of systems associated with Vital 125 Vdc Batteries 1-1, 1-2, and 1-3. The inspectors reviewed the batteries and chargers for electrolyte level, presence of any terminal corrosion, battery casing degradation, and bridging between plates. The inspectors observed the operation of the room ventilation and battery chargers.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

Monthly Routine Inspection

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 30, STP M-69B, “Monthly CO2 Hose Reel and Deluge Valve Inspection,” Revision 13, and STP M-70C, “Inspection/Maintenance of Doors,” Revision 5. Specific risk-significant areas inspected included:

- Diesel engine generator rooms
- Radiologically controlled area of the auxiliary building
- Switchgear rooms of the auxiliary building
- Intake structure

b. Findings

No findings of significance were identified.

1R06 Flood Protection (7111106)

a. Inspection Scope

The inspectors reviewed the licensee’s flooding protection measures to ensure that the licensee had taken adequate precautions to mitigate any internal and external flood risks. The inspectors reviewed the licensee’s probabilistic risk assessment for external event and internal flooding, Final Safety Analysis Report Chapter 3, and applicable controlled drawings in support of this inspection. The inspectors toured the intake structure and the lower levels of the auxiliary and turbine buildings to ensure that flood protection boundaries were adequately closed or sealed. In addition, the inspectors reviewed selected action requests to ensure that no safety significant flood protection structures, systems, or components, had overdue corrective actions.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

Routine Reviews

a. Inspection Scope

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

- A0467127, Maintenance Rule Performance Criteria, Goal Setting Review (for auxiliary saltwater screens)
- A0530522, Maintenance Rule Performance Criteria, Goal Setting Review (for Valves RCS-1-8078A and -8078B)
- A0530620, Maintenance Rule Performance Criteria, Goal Setting Review (for Radiation Monitor RM-39B)
- A0538578, Loss of Units 1 and 2 Startup Power

b. Findings

No findings of significance were identified.

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

Emergent Work - Valve PCV-21 Stud Failures

a. Inspection Scope

The inspectors evaluated the licensee response to a broken stud on Atmospheric Dump Valve PCV-21 using ARs A0540047, A0540479, A0540659, and A0542300 and Nonconformance Report N0002134.

b. Findings

The inspectors identified a noncited violation because the licensee failed to evaluate operability of a broken stud on Atmospheric Dump Valve PCV-21 within 72 hours of identifying the condition. The licensee found six of the eight valve body-to-bonnet studs broken or cracked and that the two intact studs had cracked nuts. The inspectors determined this finding had very low safety significance on the basis that the integrity of the remaining bolts and nuts, along with the stud configuration around the valve bonnet-to-body, was adequate to prevent separation of the valve bonnet. The inspectors also expressed concern because of poor implementation of the corrective action program. The licensee identified a broken stud on August 31, 2001, but failed to determine the extent of the condition until September 6.

The atmospheric steam dump valves are designated as Valves PCV-19, -20, -21, and -22 on each unit. The atmospheric steam dump valves are 8-inch air-operated valves located upstream of the main steam isolation valves. They have a combined capacity of 10 percent of rated reactor power. The licensee credits these valves in several design basis accidents and transients. Valve PCV-21 is the Unit 2 Steam Generator 3 atmospheric steam dump valve.

On August 30, during a tour of the outside areas, an auxiliary operator identified a steam leak at Valve PCV-21. Because of the size and vicinity of the steam plume, the operator concluded that a small test connection near Valve PCV-21 at Valve MS-2-5409

leaked and initiated AR A0540047. The AR review team and the shift foreman reviewed AR A0540047 and, based on the initial information provided, they determined that it need not be repaired or further evaluated in an expedited manner. On August 31, after removing insulation, personnel discovered a broken stud on the bonnet cover plate joint for Valve PCV-21. They contacted a maintenance planner, who directed that they leave the broken stud on a metallurgical engineer's desk, for evaluation. In addition, the insulators updated AR A0540047 with this new information. The metallurgist began his evaluation of the failure mechanism for the stud. Licensee personnel did not forward this updated information regarding the broken stud to management or the control room staff for a new evaluation and prioritization.

On September 4, a system engineer noted that Valve MS-2-5409 was a containment isolation valve and initiated AR A0546047 to track the leakage. The system engineer visually examined the leak and noted that the leak came from the body-to-bonnet joint of Valve PCV-21 and identified a missing bolt. The engineer recalled a previous evaluation for another valve that concluded a similar condition was acceptable; consequently, the engineer did not initiate action to have Valve PCV-21 further evaluated.

On September 6, the system engineer contacted the valve engineers. He determined that the valve engineers were not cognizant of the degraded condition of Valve PCV-21. Consequently, the system engineer and the valve engineer examined Valve PCV-21 and noted two split nuts on the bonnet cover plate joint in addition to the missing stud. The system engineer initiated AR A0540479 to have the degraded components evaluated and to further inform operators and plant management. Operators declared Valve PCV-21 inoperable and isolated the valve from the steam line. After further investigation, the licensee determined that six of the eight studs on the bonnet cover plate joint were cracked or broken. The two intact studs had cracked nuts. Therefore, with all eight of the stud/nut combinations degraded, a substantial potential for common mode failure existed. The licensee initiated Nonconformance Report N0002134 to perform a formal root cause analysis and propose corrective actions to prevent recurrence. The licensee inspected the other atmospheric dump valves to determine the extent of the condition.

The inspectors evaluated the as-found condition of the studs and nuts on Atmospheric Dump Valve PCV-21 using the Significance Determination Process. The inspectors determined that the multiple stud and nut failures represented a credible impact on safety in that their failure could have resulted in the body-to-bonnet separation of Valve PCV-21. The failure would have been similar to a failed open atmospheric dump or secondary safety relief valve. The inspectors considered that the failure of the degraded studs would result in a potential loss of the main steam boundary and a direct release path following a postulated Unit 2 Steam Generator 3 tube rupture. Subsequently, the licensee completed a metallurgical analysis that demonstrated the remaining studs and nuts had sufficient strength, along with the stud configuration around the valve bonnet, to prevent failure of Valve PCV-21. No immediate operability concerns were identified for any of the other atmospheric dump valves. Based on the determination that the valve body and bonnet would not have separated, the inspectors concluded the issue had very low safety significance (Green).

The inspectors identified the failure to promptly evaluate operability, as required by Procedure OM7.ID12, "Operability Determination," Revision 4C, as a violation. Specifically, Technical Specification 5.4.1.a states, in part, that written procedures shall 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 conduct of operations. Procedure OM7.ID12, Section 2.4.3, requires the licensee to perform a prompt operability assessment within 72 hours of identifying a degraded condition. In this case the licensee identified the broken stud on August 31, 2001; however, the licensee did not evaluate the operability of Valve PCV-21 or the other seven atmospheric dump valves until September 6 (approximately 160 hours later). This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. This violation is in the corrective action program as AR A0542300 (275; 323/01007-01).

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:

- AR A0542189, Unanchored Yard Covers not in Conformance with Design Basis
- AR A0540540, Unit 2 Containment Concrete Examination Results

In addition, the inspectors reviewed: (1) Operability Evaluation 01-04 "Operability with Potentially Degraded Stainless Steel Grade 630-H1100 Material; " and (2) Operability Evaluation 99-05, Revision 5, "Operability of DCPP Units 1 and 2 with Potentially Inadequately Designed Non-Load Bearing Concrete Walls in the Diesel Generator Rooms and Other Locations in the Turbine Building."

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Evolutions (71111.14)

Loss of Units 1 and 2 Startup Transformers

a. Inspection Scope

The inspectors evaluated the licensee response to a failed fuse box and loss of Units 1 and 2 startup transformers on August 4, 2001. The inspectors reviewed

Nonconformance Report N0002130 and ARs A0538573, A0538578, A0538593, and A0540492. Following the loss of startup power, the inspectors responded to the site, examined the failed fuse box, and interviewed licensee personnel.

The inspectors reviewed the cause of the event and the licensee's followup actions. Specifically, on August 4, 2001, the 230 kV startup system that supplies both units via a common line tripped on differential current. This caused a loss on startup power to both units, resulting in an automatic start of all six diesel engine generators. Because the auxiliary transformers continued to supply all of the vital loads, the diesel engine generators did not connect to the safety-related busses. The inspectors reviewed the operators' actions to secure the emergency diesel generators. The inspectors observed the failed components and reviewed the licensee's determination that a phase-to-phase fault occurred in the fuse box associated with the grounding transformer for the Unit 1 Startup Transformer 1-1. Severe damage resulted from the fault, such that the system could not be immediately restored.

Operators restored power to the Unit 2 startup bus on August 5, 2001. The inspectors followed up on the operators' August 6 activities to restore power to Unit 1 via the Unit 2 crosstie and to verify the action was completed within the 72-hour Technical Specification action statement. Operators restored power to the Underground Distribution System (which supplied power to the plant support buildings and makeup water systems) on August 7, 2001. Unit 1 remained in this configuration until the affected fuse box could be repaired. Operators restored startup power to its normal alignment (via Startup Transformer 1-1) on August 22, 2001.

The inspectors reviewed the root cause determination, which concluded that the failure resulted from moisture accumulation in the grounding transformer fuse box. This fuse box was located outside of plant buildings, exposed to the salty air because of the plant's close proximity to the Pacific Ocean. For long-term corrective actions, the licensee was planning to modify the fuse box to minimize moisture intrusion.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17B)

a. Inspection Scope

The inspectors reviewed procedures governing plant modifications to evaluate the effectiveness of the programs for implementing modifications to risk-significant systems, structures, and components, such that these changes did not adversely affect the design and licensing basis of the facility. The inspectors also reviewed nine permanent plant modification packages and associated documentation, such as review screens and safety evaluations, to verify that they were performed in accordance with regulatory requirements and plant procedures. Procedures and permanent plant modifications reviewed are listed in the attachment to this report.

The inspectors interviewed the cognizant design and system engineers for the identified modifications as to their understanding of the modification packages.

The inspectors evaluated the effectiveness of the licensee's corrective action process to identify and correct problems concerning the performance of permanent plant modifications. In this effort, the inspectors reviewed 16 corrective action documents (listed in the attachment to this report) and the subsequent corrective actions pertaining to licensee-identified problems and errors in the performance of permanent plant modifications.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors evaluated portions of postmaintenance testing to determine if the test adequately demonstrated that the maintenance activity was performed properly. The inspectors reviewed the work orders and the completed data reduction and witnessed portions of the postmaintenance tests associated with the following:

- Auxiliary Saltwater Pump 1-1 test run following routine maintenance in accordance with Work Order R0218542 on September 19, 2001

- Atmospheric Dump Valve MS-2-PCV-22 testing following corrective maintenance for a steam leakby in accordance with the following procedures on September 21, 2001

- Procedure STP V-3R1, "Exercising 10 percent Atmospheric Dump Valves PCV-19, -20, -21, -22 and Manual Isolation Valves MS-1015, MS-2015, MS-3015, MS-4015," Revision 31

- Procedure STP V-2U4B, "Exercising S/G No. 4 10 percent Steam Dump Valve PCV-22," Revision 1

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. The inspectors performed a technical review of the procedure and reviewed the completed test data. The inspectors evaluated the following:

- Procedure STP V-3S2, "Exercising Phase A Containment Isolation Valves (Steam Generator Blowdown)," Revision 7, on September 19, 2001
- Procedure STP V-3O3, "Exercising Valves LCV-85 Thru 90, Diesel Fuel Oil Day Tank Level Control," Revision 7, on September 22, 2001

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed Revision 3, Change 20, to the Diablo Canyon Power Plant Emergency Plan and Revision 29A to Procedure EPIP EP G-1, "Emergency Classification and Emergency Plan Activation," along with 10 CFR 50.54(q) to determine if the revisions decreased the effectiveness of the plan.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 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 third quarter of 2000 through the second 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 0, as guidance for this inspection.

- High pressure safety injection (safety injection and charging pump) system availability
- Residual heat removal system availability

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the corrective actions associated with the identification and resolution of the degraded and failed studs and nuts on Atmospheric Dump Valve PCV-21.

b. Findings

The licensee identified the failed studs on August 31, 2001; however, the licensee failed to initiate actions to evaluate and correct this significant condition adverse to quality or identify the extent of the condition until September 6. This issue is documented in Section 1R13 as a violation of Technical Specification 5.4.1.a. This is a problem and identification concern that contributed to the delay in evaluating the extent of the condition for the potential common cause failure of the atmospheric dump valve body-to-bonnet retaining studs and nuts.

The licensee performed a lessons learned case study for failure to meet management's expectations for the identification and reporting of the broken stud on Valve PCV-21. Licensee management reiterated their expectation that significant conditions adverse to quality be promptly identified and reported to management.

4OA5 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 evaluated the following factors each week to determine whether the financial condition and power needs of the station impact plant safety. The resident inspectors briefed the responsible managers in Region IV on these factors. The factors reviewed include: (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, including risk significant modifications, (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 onset of rolling blackouts, and main generator VAR loading).

Additionally, the resident inspectors provided status daily on the energy supply situation and operating reserves available in the California market. NRC managers have increased their presence by performing monthly visits to assess site conditions, including employee morale, licensee initiatives, and specific technical issues.

b. Findings

No findings of significance were identified

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. J. Becker, Station Director, and other members of licensee management at the conclusion of each regional inspection during the inspection period. The resident inspection results were presented on October 10, 2001. The licensee acknowledged the findings presented.

For the emergency preparedness inspection, the inspectors presented the inspection results to Mr. S. Fridley, Director of Site Services, in a telephone conversation on September 26, 2001. The licensee acknowledged the findings presented.

For the permanent plant modifications inspection, the inspectors presented the inspection results to Mr. D. Miklush, Director, Engineering Services, and other members of licensee management on September 25, 2001, via a telephonic meeting. Licensee management acknowledged the inspection findings.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. R. Becker, Station Director
D. D. Christensen, Engineer, Nuclear Quality Assurance and Licensing
R. E. Hite, Director, Radiation Protection
S. C. Ketelsen, Supervisor, Regulatory Services
D. B. Miklush, Director, Engineering Services
P. T. Nugent, Director, Regulatory Services
D. H. Oatley, Vice President
J. W. Tompkins, Director, Nuclear Quality Assessment and Licensing
R. A. Waltos, Director, Maintenance Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed During this Inspection

275; 323/2001007-01	NCV	Violation of Technical Specification 5.4.1.a for failure to write a prompt operability assessment for broken studs on Valve PCV-21 (Section 1R13)

Previous Items Closed

None

LIST OF ACRONYMS USED

AR	action request
CFR	Code of Federal Regulation
NEI	Nuclear Energy Institute
NCV	noncited violation
NRC	Nuclear Regulatory Commission
VAR	volt-amperes reactive

PARTIAL LIST OF DOCUMENTS REVIEWED

Design Change Packages:

NUMBER	DESCRIPTION
E-49451/00	Change of Setpoint for Second Level Undervoltage Relays, Unit 1
E-50451/00	Change of Setpoint for Second Level Undervoltage Relays, Unit 2
J-49363/01	Replacement of RWST Rosemount Level Transmitters
M-49448/00	CCW/SFP Piping Bases Changes
N-49114/01	Modification of Pressurizer Safety Valves
N-49317/00	Screen Replacement of Containment Recirculation Sump
N-49510/00	Recirculation Sump Modifications
N-49516/00	Unit 1 Uprate
P-50392/01	Modification of AUXILIARY SALTWATER Pump Vault Floor Drain

Calculations:

NUMBER	TITLE	REVISION/DATE
1-288.7	Containment Recirculation Sump Limiting Parameters for Design Basis Accident	December 17, 1973
1-288.7	Containment Recirculation Sump Limiting Parameters for Design Basis Accident	March 3, 1975
1-288.7	Containment Recirculation Sump Limiting Parameters for Design Basis Accident	March 6, 1975

Calculations:

NUMBER	TITLE	REVISION/DATE
1-288.7	Containment Recirculation Sump Limiting Parameters for Design Basis Accident	November 22, 1996
1-288.7	Containment Recirculation Sump Limiting Parameters for Design Basis Accident	March 3, 1999
357P-DC	4160V Second Level Undervoltage Relay and Timer Setpoints	0

Action Requests:

A0412380	A0465910	A0514403	A0522398
A0412382	A0494702	A0521787	A0524100
A0412419	A0504112	A0522243	A0526404
A0412544	A0510454	A0522335	A0529259

Procedures:

NUMBER	TITLE	REVISION
IDAP CF3.ID8	Maintenance Modification Package Development	5
IDAP CF3.ID9	Design Change Package Development	14
IDAP CF3.ID10	Maintenance Modification Action Requests	13

Miscellaneous Documents:

NUMBER	TITLE/DESCRIPTION	REVISION/DATE
	ALARA Design Manual	3
003696237	Audit of Design-Related Issues, Programs, and Documents	October 27, 2000

Miscellaneous Documents:

NUMBER	TITLE/DESCRIPTION	REVISION/DATE
003707558	Audit of Design-Related Issues, Programs, and Documents	September 17, 2001
LAR 99-03	Licensee Amendment Request for Unit 1 Power Uprate	December 31, 2001