



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

January 23, 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, CA 93424

**SUBJECT: DIABLO CANYON INSPECTION REPORT 50-275/01-09; 50-323/01-09**

Dear Mr. Rueger:

On December 29, 2001, 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 November 20 and December 14, 2001, and January 8, 2002 with Mr. David B. Miklush 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.

No findings of significance were identified.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. 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. This advisory was followed by additional advisories, and although the specific actions are not releasable 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 NRC has conducted various audits of your responses to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design-basis threat (DBT). From these audits, the NRC has concluded that your security program is adequate at this time.

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, the description of the scope and findings of the individual inspection activities will be more detailed where it serves to keep the public more fully informed of the breadth and depth of the NRC's inspection and oversight activities. Region IV will be initiating a quarterly periodicity for our integrated inspection reports at Diablo Canyon (the other reactors in Region IV had previously implemented a quarterly report frequency).

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  
Project Branch E  
Division of Reactor Projects

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

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NRC Inspection Report No.  
50-275/01-09; 50-323/01-09

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01/18/02	01/18/02	01/18/02

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 50-275  
50-323

Licenses: DPR-80  
DPR-82

Report Nos: 50-275/01-09  
50-323/01-09

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: November 18 through December 29, 2001

Inspectors: D. L. Proulx, Senior Resident Inspector  
T. W. Jackson, Resident Inspector  
G. F. Suber, Engineering Intern  
M. P. Shannon, Senior Health Physics Specialist  
P. J. Elkmann, Emergency Preparedness Inspector

Approved By: W. B. Jones, Chief, Project Branch E  
Division of Reactor Projects

ATTACHMENT:

Attachment: Supplemental Information

## SUMMARY OF FINDINGS

IR 05000-275-01-09, IR 05000-323-01-09, 11/18 to 12/29/01, Pacific Gas and Electric. Co., Diablo Canyon Nuclear Power Plant Units 1 and 2.

This report covers a 6-week routine resident, emergency preparedness, and radiation protection inspection from November 18 through December 29, 2001. No findings of significance were identified. 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

No findings of significance were identified.

### B. Licensee Identified Violations

Violations of very low significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. These violations are 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 November 21, 2001, operators in both units reduced power to 20 percent in anticipation of high Pacific Ocean swells and potential high kelp loading on the traveling screens. After the high swells subsided, operators returned both units to 100 percent power on November 22.

On December 20, 2001, operators in both units again reduced power to 20 percent in anticipation of high Pacific Ocean swells. Operators returned both units to 100 percent power on December 21 once the high swells decreased in energy.

Diablo Canyon Units 1 and 2 continued to operate at essentially 100 percent power until the end of the inspection period.

#### **1. REACTOR SAFETY**

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

#### 1R04 Equipment Alignments (71111.04)

##### Partial System Walkdowns

##### a. Inspection Scope

On December 14, 2001, with the Turbine-Driven Auxiliary Feedwater Water Pump 1-1 declared inoperable for preventive maintenance and overspeed trip tests, the inspectors performed a partial system walkdown of the Motor-Driven Auxiliary Feedwater Pumps 1-2 and 1-3. The inspectors walked the system down to verify proper valve and electric power line ups; observe system labeling and seismic supports; verify pump and motor lubricant reservoirs were filled; and, confirm that support systems including ventilation system were available. The inspectors used the following documents during the inspection:

- Procedure OP D-1:II, "Auxiliary Feedwater System – Alignment Verification for Plant Startup," Revision 27
- Drawing OVID 106703, "Feedwater System," Sheet 3 - Revision 56

##### b. Findings

No finding of significance were identified.



1R05 Fire Protection (71111.05)

Quarterly Routine Inspection

a. Inspection Scope

The inspectors performed fire protection walkdowns to assess the material condition of plant fire detection, mitigation and suppression systems, and the proper control of transient combustibles. The inspectors used Section 9.5 of the Final Safety Analysis Report Update as guidance, as well as the requirements 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. The inspectors review included fire suppression and detection equipment and barriers (doors and fire seals) located within risk-significant areas. These areas included:

- Diesel engine generator and 12 kV switchgear rooms of the turbine building
- Switchgear rooms of the auxiliary building
- Radiologically controlled area of the auxiliary building
- Intake structure

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 action requests (ARs):

- A0543927, Goal setting review for component cooling water system
- A0545344, Goal setting review for failure of Valve PCV-21
- A0545346, Goal setting review for Level Instrument LI-528
- A0544616, Steam leak near Valve FW-1-300B

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 and weekly work schedules to determine when the licensee had scheduled risk-significant activities. The inspectors reviewed the risk evaluation and plant configuration control associated with the Turbine-Driven Auxiliary Feedwater Pump 1-1 maintenance outage window. The inspectors considered whether the licensee had established applicable contingencies as discussed in the risk assessments. The inspectors used Procedure AD7.DC6, "On-Line Maintenance Risk Management," Revision 6, during the inspection effort.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Events (71111.14)

Dual Unit Down Powers

a. Inspection Scope

On November 21 and December 20, 2001, the licensee was alerted to high Pacific Ocean swells approaching the plant. High swells, in conjunction with large amounts of kelp, can cause a loss of circulating water to the main condensers resulting in a reactor trip. The inspectors observed licensee discussions for the proposed response to the approaching high swells. The inspectors reviewed Procedures OP O-28, "Intake Management," Revision 7, OP AP-7, "Degraded Condenser," Revision 26, and OP AP-25, "Rapid Load Reduction," Revision 4, in preparation for the inspection. Prior to the high swells reaching the plant, the inspectors walked down various portions of the intake structure to verify that equipment impacted by the high swells were in proper operational condition. In anticipation of heavy kelp loading and high swells, operators decreased power to 20 percent on both units. The inspectors responded to the control room and observed portions of the down powers on each occasion. The inspectors subsequently reviewed plant conditions during the event and monitored operator and equipment performance.

b. Findings

No findings of significance were identified.

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:

- A0544959, Evaluation of Opening Valves SI-8883 and SI-8961 simultaneously and safety injection system operability
- A0534742, Unit 2 reagent gas bottle for CEL-82 and -83 found isolated
- A0541229, Low air flow in found in one branch duct associated with Fan E-2

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

Routine Observation

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, witnessed portions of the surveillance test, and reviewed the completed test data. The inspectors evaluated the licensee's performance of Procedure STP M-89, "ECCS System Venting," Revision 28 on November 29, 2001.

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 30 to Diablo Canyon Emergency Plan Implementing Procedure EP G-1, "Emergency Classification and Emergency Plan Activation," submitted October 2, 2001, against 10 CFR 50.54(q) to determine if the revision decreased the effectiveness of the plan.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

Cornerstone: Occupational Radiation Safety [OS]

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope

The inspector interviewed radiation workers and radiation protection personnel throughout the radiologically controlled area and conducted independent radiation surveys of selected work areas. The following items were reviewed and compared with regulatory requirements to assess the licensee's program to maintain occupational exposure as low as is reasonably achievable (ALARA):

- ALARA program procedures
- Processes used to estimate and track exposures
- Plant collective exposure history for the past 3 years, current exposure trends, and 3-year rolling average dose information
- Three radiation work permit packages for work activities which resulted in some of the highest personnel collective exposures during Unit 2 Refueling Outage 10 (RWP 01-2044, "Steam Generator Eddy Current Inspections and Tube Work," RWP 01-2027, "Reactor Re-Assembly," and RWP 01-2002, "Scaffolding in Unit 2 Containment")
- Use of engineering controls to achieve dose reductions
- Hot spot tracking and reduction program
- Radiological work planning
- ALARA Review Committee meeting minutes (5/9/01, 8/15/01, and 9/12/01)
- Exposures of selected work groups (maintenance and engineering)
- A summary of ALARA and radiological worker performance related ARs written since May 1, 2001 (17 ARs were reviewed in detail: A0533079, A0533443, A0533479, A0533540, A0536016, A0536999, A0539069, A0539555, A0539567, A0539653, A0539716, A0539934, A0539939, A0540089, A0541207, A0541210, and A0541900)
- Declared pregnant worker dose monitoring controls

- ALARA program portion of Nuclear Quality Services Radiation Protection Program Audit (Engineering Department Management System Number 011770001)

No work was performed in high exposure or high radiation areas during this inspection. Therefore, this aspect of the above procedure could not be evaluated.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151)

Reactor Safety Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the following Performance Indicators for the period that ranged from the second quarter 2000 through the third quarter of 2001. The inspectors confirmed the accuracy and completeness of the indicators:

- Reactor coolant system leakage
- Safety system failures

The inspectors used NEI 99-02, "Regulatory Assessment Performance Indicator Verification," Revision 0, Procedures AWP E-005, "Development of NRC Safety System Unavailability Performance Indicator Data," Revision 0 and XI1.DC1, "Collection and Submittal of NRC Performance Indicators," Revision 2, during this inspection. The inspectors interviewed personnel responsible for collecting and evaluating the performance indicator data.

b. Findings

No findings of significance were identified.

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 continued to evaluate the following factors to determine whether the financial condition and power needs of the

station impacted plant safety. The resident inspectors briefed the responsible managers in Region IV on these factors. 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, 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. Managers have increased their presence onsite 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

40A6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. D. Miklush, Engineering Services 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 January 8, 2001. The licensee acknowledged the findings presented.

For the emergency preparedness inspection, the inspectors presented the inspection results to Mr. Steve Pratt, Onsite Emergency Preparedness Coordinator, and other members of licensee management during a telephonic exit interview conducted on November 20, 2001. The licensee acknowledged the findings presented.

For the radiation protection inspection, the inspectors presented the inspection results to Mr. David Oatley, Vice President, and other members of licensee management on December 14, 2001. 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. No proprietary information was identified.

40A7 Licensee Identified Violations

The following finding of very low significance was identified by the licensee and is a violation of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a noncited violation (NCV).

If you deny these 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 facility.

NCV Tracking Number

Requirement Licensee Failed to Meet

275; 323/2001009-01

Technical Specification 5.4.1.a. requires the implementation of procedures listed in Regulatory Guide 1.33, Appendix A. Attachment 10.7 of Procedure RCP D-200, "Writing Radiation Work Permits," Revision 22A, states, in part, that radiation protection shall ensure that a constant air monitor is in operation in the fuel handling building while underwater work is being performed. On August 29, 2001, the licensee identified that underwater work was being performed in Unit 1 spent fuel pool without the required constant airborne monitor in operation. This event is described in the licensee's corrective action program, reference AR A0539922. This is being treated as a noncited violation.

The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised.

## ATTACHMENT

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

J. R. Becker, Station Director  
D. D. Christensen, Engineer, Nuclear Quality Analysis and Licensing  
J. A. Hays, Director Maintenance Services  
R. E. Hite, Director, Radiation Protection  
R. L. Russell, 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 Analysis and Licensing

### ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

None

#### Opened and Closed During this Inspection

275; 323/2001009-01	NCV	Violation of Technical Specification 5.4.1.a for failure to perform airborne sample during underwater operations (Section 4OA7)
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#### Previous Items Closed

None

### LIST OF ACRONYMS USED

ALARA	as low as reasonably achievable
AR	action request
CFR	Code of Federal Regulations
FSAR	Final Safety Analysis Report
kV	kilovolt
NEI	Nuclear Energy Institute
NCV	noncited violation
NRC	Nuclear Regulatory Commission
VAR	volt-amperes reactive