

APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Inspection Report: 50-275/94-15  
50-323/94-15

Operating Licenses: DPR-80  
DPR-82

Licensee: Pacific Gas and Electric Company  
Nuclear Power Generation, B14A  
77 Beale Street, Room 1451  
San Francisco, California 94177

Facility Name: Diablo Canyon Units 1 and 2

Inspection At: Diablo Canyon Site, San Luis Obispo County, California

Inspection Conducted: April 24 through June 4, 1994

Inspectors: M. Miller, Senior Resident Inspector  
M. Tschiltz, Resident Inspector

Approved By: D. F. Kirsch  
D. F. Kirsch, Chief  
Reactor Projects Branch E

6/15/94  
Date Signed

Inspection Summary

Areas Inspected (Units 1 and 2): Routine, announced, resident inspection of onsite followup of events, operational safety verification, plant maintenance, surveillance observations, quality assurance, and in-office review of licensee event reports.

Results (Units 1 and 2):

Operations:

Strength:

- Alert response by an operator identified increasing hydrogen levels in the Unit 1 Phase C main transformer. The plant was promptly shut down and the transformer replaced (Paragraph 2.2).

Weakness:

- The low temperature overpressure protection (LTOP) system was isolated for about 25 minutes during Unit 1 RCS fill and vent. Three



opportunities were missed to preclude this occurrence, and evidenced a less than adequate questioning attitude by personnel (Section 3.5).

- The residual heat removal system was pressurized to a pressure of 600 psig, due to operator miscommunication, Westinghouse generic design vulnerabilities, and the alarm setpoint being set at the Westinghouse generic design pressure of 600 psig rather than below the design pressure. Later information determined that the Diablo Canyon RHR system design pressure is actually 700 psig (Section 3.1).

Maintenance:

Weakness:

- An NRC inspector identified use of aluminum tape on reactor coolant system insulation in the Unit 1 containment. This tape had been installed without required analysis of aluminum loading or the potential for clogging of the containment recirculation sump (Section 3.2).

Plant Support:

Strength:

- An audit by the quality assurance organization identified a nonconservative constant in the Eagle 21 upgrade reactor protection system (RPS) software controlled by Westinghouse (Section 6.2).

Summary of Inspection Findings:

- Violation 275/9415-01 was identified (Section 3.2).
- Licensee Event Reports 275/94-02, 275/94-07, 275/94-08, 275/94-11, 275/94-12, and 323/94-01 were closed (Section 7).

Attachments:

- Attachment 1 - Persons Contacted and Exit Meeting
- Attachment 2 - Acronyms



## DETAILS

### 1 PLANT STATUS (71707)

#### 1.1 Unit 1

Unit 1 completed Refueling Outage 1R6 and returned to power on May 7, 1994. During power ascension and associated testing, an internal fault was discovered in the Main Bank Phase C transformer and the unit was shut down for replacement of the transformer. Unit 1 returned to power on May 21, 1994, following replacement of the Main Bank Phase C transformer. Power ascension testing was completed on May 27, 1994, at which time Unit 1 returned to full power operation. On May 30, a steam leak occurred when a 1/2 inch drain line to a turbine governor valve suffered a weld failure. Unit 1 power was reduced to 20 percent, the leak repaired, and the unit returned to full power.

#### 1.2 Unit 2

Unit 2 operated at 100 percent power during the entire report period.

#### 1.3 Site Visit

On Monday, May 9, the Associate Director for Inspection and Technical Assessment and the Assistant Director of Projects III/IV, with the WCFO Director, visited the site for a routine site tour. An open meeting had been announced for the 2-hour portion of the visit involving licensee presentations. No members of the public attended the open meeting.

#### 1.4 Press Conference

At 9 a.m. May 13, at the San Luis Obispo City/County Library, the Regional Administrator, the WCFO Director, the State Liaison Officer, two Public Affairs Officers, and the Resident Inspector held a Regional Administrator's Quarterly Press Conference. The issues discussed included the RIV/RV regional consolidation. Questions from the media and public were also addressed.

### 2 ONSITE RESPONSE TO EVENTS (92701 and 93702)

#### 2.1 Unusual Event (UE) Caused by Grass Fire

On May 8, 1994, a UE was declared as a result of a fire caused by electrical faults in a nonsafety-related 12 KV power line outside the protected area. The fire was confined to the top one-fifth of a hill above the warehouse, outside the protected area. The California Department of Forestry was contacted to help fight the fire and a UE was declared. Due to the location of the fire relative to the site, prevailing wind direction moved the fire away from the transmission lines and the protected area. The fire was extinguished within 2 hours and burned approximately 1 acre of grassland.



Conclusion Quick action to put out the fire prevented its further spread under windy conditions. Licensee response was prompt and appeared appropriate.

## 2.2 UE Due to Shutdown Required by Technical Specifications (TS)

On May 10, 1994, during the initial power ascension from 30 percent, within a week of restart after a scheduled refueling outage, a UE was declared when Phase C of the Unit 1 main bank transformer indicated internal electrical faulting (i.e., increased hydrogen and acetylene concentrations). After discovery of transformer internal faulting, Unit 1 power was reduced. Unit 1 was then separated from the grid and maintained in Mode 2 for initial troubleshooting. The first indications of the faulting were a radio frequency monitor alarm and observation by an alert operator of elevated Hydran monitor readings. The Hydran monitor is calibrated to read hydrogen levels inside the transformer case. Results of an oil sample analysis showed elevated levels of hydrogen and acetylene as well as several other indicators of transformer internal arcing. TS require that the capability to backfeed through these transformers be returned to service within 72 hours (an offsite emergency power source). When it became apparent that the transformer could not be repaired and returned to service within the 72-hour TS required period, a reactor shutdown was performed. The UE was terminated at 10:45 p.m. on May 11, 1994, upon transition into Mode 5.

This was the same transformer which, during the last outage, had its upper tank section inadvertently pressure tested at 100 psig rather than the required 5 psig. As a result, the outside skin of the transformer top tank expansion band was visibly bowed outward. After consultation with the transformer vendor, the licensee performed inspections and tests, and then developed an engineering evaluation which concluded that, despite the outer skin deformation, no degradation of performance was expected as a result of the high test pressure.

Conclusion Observation of elevated hydrogen levels by an alert operator, diagnosis of the faulted transformer condition, subsequent declaration of a UE and plant shutdown were all appropriately performed by the licensee. Review of the transformer oil samples indicated a condition which was deteriorating over time and required corrective action to prevent further damage to the transformer. Initial visual inspections and electrical checks of the faulted transformer did not reveal the source of the problem. The licensee is appropriately conducting further troubleshooting to determine the root cause of the transformer failure.

## 3 OPERATIONAL SAFETY VERIFICATION (71707)

### 3.1 RHR System Overpressurization

On May 1, 1994, with Unit 1 in Mode 5 (350 psig), with solid pressurizer, RHR Train 1-2 briefly exceeded the Westinghouse RHR system design pressure of 600 psig. The RHR system at Diablo Canyon was designed by PG&E as a 700 psig



pipng system, but relief valve and alarm setpoints were based on the 600 psig generic Westinghouse plant design pressure.

Operators performing two separate routine surveillance tests miscommunicated the position of chemical and volume control system hydraulic pressure equalizing valves, resulting in charging additional inventory into the already solid RCS. As RCS pressure increased rapidly due to the added inventory and solid pressurizer, Pressure Control Valve 135 (the letdown regulator valve) opened to reduce RCS pressure, transmitting increased pressure to the RHR system. Since the reactor had been shut down for 2 months, RHR flow was throttled to approximately 1300 gpm, which corresponds to an RHR pump differential pressure across the pump of approximately 180 psig. As RCS pressure increased, the added RHR pump differential pressure resulted in increasing the pressure downstream of the pump discharge, to a maximum of about 605 psig in RHR train 1-2, and approximately 600 psig in train 1-1. Upon receipt of an alarm for RHR pressure over 600 psig, operators took action to reduce RCS and RHR system pressures, and isolate the charging system injection pathway.

Operator Miscommunication The lack of formal communication, between operators, of valve positions for the performance of surveillances, and the failure of the control room operators to maintain and control plant configuration, were contributors to the cause of this event. The licensee is investigating whether it was prudent to schedule surveillance tests with potential for injecting into the RCS when the RCS is being maintained in a solid condition.

Westinghouse Design Vulnerabilities The portion of the RHR system which was pressurized included the piping from the discharge of the pump, through the RHR heat exchanger, and up to flow control throttle Valve FCV 637. Although the Westinghouse generic design pressure of the system is 600 psig, the design of the RHR and RCS system interfaces does not preclude pressurization of this portion of the system above 600 psig. An RHR system relief valve, which would not have protected the system from this transient with the throttle valve partially shut, is located downstream of the throttle valve and is set at 600 psig to protect the RHR system from back leakage through injection system containment isolation valves.

Diablo Canyon RHR System Design Discussions with the licensee revealed that, although designated as a 600 psig system, the RHR piping at Diablo Canyon was designed to ASME standards of 700 psig at 400°F. Using the same ASME standard, under the 190°F conditions of the overpressurization, the system could have incurred greater than 1000 psig without exceeding design limits. Further review determined that the RHR pump suction relief valve, set at 450 psig, would have relieved to protect the system from overpressure. Therefore, the licensee considered this transient to not have been significant and the design to be adequate.

Alarm and Relief Valve Setpoints at 600 Psig Design Pressure The inspectors questioned why the alarm and relief valves were set at the generic design



pressure, with no apparent margin. The licensee provided information, as discussed above, showing that the RHR system at Diablo Canyon was designed to 700 psig rather than 600 psig, although the nominal design pressure for Westinghouse RHR systems, as well as the plant staff's general understanding of the design pressure, is 600 psig.

Licensee Communication With Westinghouse The inspectors expressed concern that this potential generic vulnerability had apparently not been communicated promptly to Westinghouse. The licensee stated that communication had taken place with Westinghouse at the engineer levels, and a formal communication would be provided promptly to Westinghouse to identify the potential generic design implication.

Low Temperature Over Pressure Protection System Response The RCS Low Temperature Over Pressure Protection (LTOP) system, set to relieve at 450 psig, was not challenged during this event.

Conclusion The licensee did not properly control the configuration of chemical and volume control valves during implementation of surveillance testing, resulting in a pressure transient in the RHR system. No design limits were exceeded.

### 3.2 Unauthorized Use of Aluminum Tape in Containment

Aluminum use in containment is tightly controlled since, during design basis events, it can result in increased generation of hydrogen. Tape use is controlled in containment since, during design basis events, the tape can become detached and may become entrained in the coolant flow to the sump and result in blockage of the sump screens. Items installed in containment must be evaluated to address each of these concerns.

On May 5, 1994, while Unit 1 was in Mode 3, an NRC inspector conducted a walkdown of Unit 1 containment. All levels and areas of the containment were found to be very clean and clear of debris, with the following exception. The inspector noted several patches of tape on RCS piping insulation, amounting to several square feet of tape. The inspector questioned the installation of the tape. The licensee determined that no evaluation of the tape installation had been performed and promptly removed the tape.

When the inspector questioned the installation of the tape, the licensee was not able to promptly determine if the tape was aluminum or stainless steel tape. The licensee also was not able to identify a work order which allowed use of the tape in this particular application. Later analysis of the tape which was removed from the insulation determined that most of the tape was aluminum, and a small fraction was stainless steel tape.

The licensee determined that technicians had properly removed insulation from the reactor coolant piping and steam generator, in accordance with a work order, to support outage work. While replacing the insulation at the end of the outage, the technicians independently decided to affix tape to the



insulation strap buckles. The technicians were aware that tape had been used in re-installation of insulation on the pressurizer surge line. This particular use of tape had been analyzed and approved by the engineering organization for that specific application and location. The technicians took leftover tape from the pressurizer line job site and used it on the steam generator insulation and RCS loop piping insulation. Additionally, technicians obtained stainless steel tape from excess tape available for fire protection insulation wrap in containment and used this on the RCS and steam generator insulation.

The technicians chose to use the tape which had been previously analyzed for jobs and locations in containment other than the RCS loop piping and steam generator jobs they were working. In the absence of a specification for use of tape in that application, they chose to use a material not specified in the work order and outside the bounds of the work order and governing Procedure DCP-111, "Thermal Insulation." Therefore, the inspector concluded that the technicians proceeded in the face of uncertainty and that their failure to conform to their work instructions was a missed opportunity to preclude the situation.

During walkdowns of containment, the foremen, engineers sponsoring the design change, and various containment coordinators did not question the installation of the tape. For some, this failure to question the installation was rationalized by their knowledge of the previously approved use of tape on the pressurizer surge line. Observance of the tape by multiple individuals was a missed opportunity to identify the improper use of tape and evidenced a less than adequate questioning attitude by plant staff.

After identification of the improper installation by the NRC, the licensee determined that the majority of the tape was aluminum tape, with some use of stainless steel tape, and that the tape, as installed, would not have resulted in exceeding aluminum inventory limits, since the margin of aluminum use in containment allowed several hundred pounds of additional aluminum. In addition, the licensee determined that the tape was too dense to become entrained in the liquid flow stream to the containment recirculation sump and, since it was installed on piping within the structure containing RCS piping, gratings would have prevented the tape from being carried to the sump.

The inspector identified that design requirements and procedures exist which should have resulted in a review of use of this tape before installation to determine if all design requirements were satisfied. Control of aluminum is implemented in Procedure AP D-53, "Restriction of Aluminum From Containment," Revision 0. The procedures which control potential debris which could be carried to the sump do not clearly address tape, since they refer to control of loose debris, which may not be considered by technicians to refer to tape. This particular concern will be addressed in the resolution of the licensee's quality documents (Action Requests and Quality Evaluations) associated with this issue.

The licensee construction organization issued a lessons learned bulletin,



emphasizing a need to question installation of materials which were not specifically authorized by controlled documents. The manager of Nuclear Construction Services stated that this lesson learned will be used in the plant-wide initiatives to emphasize the need for more questioning attitudes while performing plant work.

Conclusion The unauthorized installation of the tape on RCS system insulation in the Unit 1 containment, resulting in failure to consider aluminum inventory and sump operability design requirements with respect to the tape, is a violation of TS 6.8.1, which requires that procedures be implemented for the recommended processes of Regulatory Guide 1.33. Paragraph 9.a. of Regulatory Guide 1.33 recommends that procedures associated with maintenance of equipment important to safety be properly preplanned and controlled. Procedure DCP-111, "Thermal Insulation," Revision 3, requires that "Insulation materials other than stainless steel jacketed calcium silicate or reflective metal shall not be used inside the Containment without prior written NES authorization." Failure to properly implement this and other procedures regarding control of aluminum and debris which could affect the sump, resulted in unauthorized installation of several linear feet of aluminum tape on RCS system insulation (275/9415-01).

### 3.3 Radiation Protection Contamination Controls

Several tours in the RCA following the completion of Refueling Outage 1R6 outage revealed inadequate housekeeping practices in several areas where radioactive material was being handled. Specifically, the Unit 2 cask wash down area, which was being used as a radioactive material storage area during the outage, was cluttered and untidy. The hot work shop in the fuel handling building was in a similar condition. The inspector noted several instances of surface contamination areas where the boundaries were not being properly controlled in minor ways. After discussion with the licensee, deficiencies in these areas were corrected.

Conclusion Generally, radiological work practices were adequate and acceptable. These findings were minor in nature and were promptly corrected.

### 3.4 Operator Logs

During review of operator logs, to assess conformance with TS requirements, an inspector noted that licensee Operating Procedure OP L-5, Attachment 9.2, referenced a TS that did not exist. This was pointed out to the licensee. The requirements of the correct TS were implemented in the procedure; therefore, this was an administrative problem only. The licensee corrected the deficiency within 1 day of the inspector's finding.

Conclusion Operator logs were acceptable and adequate. This finding was minor and was quickly corrected.

### 3.5 Isolation of the LTOP System



On April 23, 1994, upon initiation of fill and vent of the Unit 1 RCS, both LTOP system pressure transmitters were inadvertently isolated for the first 25 minutes of the RCS fill and vent. The inspector evaluated the circumstances of this situation and the licensee's evaluation and corrective action.

The primary pressure detectors were out of service, and the backup pressure detectors, although properly installed in the LTOP logic rack, had been isolated at the instrument line isolation valve during the fill and vent valve line-up procedure. A procedure change, which addressed the use of the backup pressure transmitters, had not yet been incorporated at the time the fill and vent valve line-up was performed. The individual performing the procedure questioned the isolation of the backup pressure transmitters, but did not relay his question to the proper individuals. During the fill and vent operation, the control room operator noted that the pressure indication did not appear to indicate a pressure, and was reassured by instrumentation and control technicians that indication would come off the zero indication at a slightly higher pressure. After 25 minutes of charging inventory into the RCS, the operator concluded the pressure indication was inaccurate and manually opened the power operated relief valves. Approximately 2800 gallons of borated water was relieved into the pressurizer relief tank due to expansion of the gas entrapped in the RCS.

Action Request A0337597 was written to document the problem, and NCR DCO-94-OP-N024 was initiated to track the root cause evaluation and corrective action.

The Mode 5 limiting condition for operation for LTOP, TS 3.4.9.3, requires that a vent path be made available within 8 hours. Since this requirement was satisfied before expiration of the limiting condition for operation, the licensee determined that the event was not reportable.

The licensee stated that no pressure limits were exceeded during the event.

Conclusion The licensee proceeded to raise pressure of the RCS with the LTOP system isolated, despite three opportunities to preclude the isolated LTOP system. These were: (1) failure to provide timely implementation of a procedure change; (2) failure of the individual performing the valve line-up to effectively question the valve positions; and (3) failure of the control room and instrumentation and control personnel to promptly act on information indicating inaccurate indication. This event was the result of a less than adequate questioning attitude by involved personnel.

#### I. PLANT MAINTENANCE (62703)

During the inspection period, the inspector observed and reviewed selected documentation associated with maintenance and problem investigation activities listed below to verify compliance with regulatory requirements, compliance with administrative and maintenance procedures, required quality assurance/quality control department involvement, proper use of safety tags,



proper equipment alignment and use of jumpers, personnel qualifications, and proper retesting.

Specifically, the inspector witnessed portions of the following maintenance activities:

#### Unit 1

- Main Bank Phase C Transformer Replacement
- CCW Heat Exchanger 1-2 Differential Pressure Sensing Line Flush

#### Unit 2

- Maintenance of Westinghouse DB-50 480 V Reactor Trip and Bypass Circuit Breaker

#### 4.1 480 V Breaker Maintenance

The inspector reviewed Maintenance Procedure MP E-41.1A, "Maintenance of Westinghouse DB-50 480 V Reactor Trip and Bypass Circuit Breakers," to determine if maintenance of the breaker occurred before measurement of the as-found condition occurred and to determine if the activities to megger the breaker and test the undervoltage trip attachment (UVTA) included a step to remove obstructing tools and hardware.

As-Found Testing The procedure begins immediately with as-found testing. No maintenance is specified until after the testing of the trip load, UVTA dropout test, breaker response time verification of UVTA, breaker response time verification of the shunt trip, and inspections of the breaker for evidence of high wear or broken parts.

Requirement to Remove UVTA Restraint Cord Procedure Step 7.3.1.b included a foreman functional test of the breaker, instructions to ensure foreign objects and all tools removed from switchgear enclosure and breaker element, and a quality control hold point to have the quality control inspector verify all foreign objects, tools, and weights removed from switchgear enclosure and breaker element. Step 7.3.1.b.2 requires removal of the UVTA restraining cord.

Conclusion The procedure for maintaining DB-50 480 V breakers does not allow preconditioning of the breaker and includes three administrative requirements for removing the UVTA restraint after completion of maintenance activities.

### 5 SURVEILLANCE OBSERVATIONS (61726)

Selected surveillance tests required to be performed by the TS were reviewed on a sampling basis to verify that: (1) the surveillance tests were correctly included on the facility schedule; (2) a technically adequate procedure



existed for performance of the surveillance tests; (3) the surveillance tests had been performed at a frequency specified in the TS; and (4) test results satisfied acceptance criteria or were properly dispositioned.

Specifically, portions of the following surveillances were observed by the inspector during this inspection period:

Unit 1

- STP I-38-AB.5; Solid State Protection System (SSPS) Multiplexer Test Switch Realignment
- STP P-2B; Routine Surveillance of Centrifugal pumps
- OP K-10D; Sealed valve checklist for the auxiliary feedwater system.
- STP M-16HB; Operation of SSPS Train B Slave Relays K644 and K645 (Containment Spray Pump 1-1 and Discharge Isolation Valve CS-1-9001A)

Unit 2

- STP M-13F; 4KV Bus F Non-SI Auto-Transfer Test

5.1 STP I-38-AB.5; SSPS Multiplexer Test Switch Realignment

During observation of the performance of STP I-38-AB.5 on May 18, 1994, the technician noted the procedure to be in error in that it listed an incorrect test switch position. This was apparently the first use of the procedure since a recent revision which changed this section as well as other sections of the procedure. The technician immediately notified the foreman of the discrepancy and the foreman initiated an "editorial correction" in accordance with procedures. The change process was observed by the inspector. The instrumentation and control foreman was well versed in the requirements for use of the procedure and the change was written, reviewed and implemented in a manner which appeared to be in compliance with the procedure requirements.

Conclusion The procedure editorial change process appeared to have been appropriately implemented. The technician's understanding of the process appeared adequate.

5.2 STP M-13F, 4KV Bus F Non-SI Auto-Transfer Test

The inspector reviewed Procedure STP M-13F to determine if the breaker load shed function was verified after the 4 KV feeder breaker was opened. Steps 12.9.8.a through -e require signature verification that the appropriate auxiliary service water pump, component cooling water pump, safety injection pump, auxiliary feedwater pump and centrifugal charging pump breakers opened upon opening of the feeder breaker. These pump breakers are the total of the 4 KV breakers on the bus, with the exception of the 480 volt load centers



breaker, which is required to remain on the 4 KV bus. The load shed capability of the 480 V breakers will be examined at a later date.

Conclusion The test appeared to appropriately verify the 4 KV breaker load shed function.

## 6 QUALITY ASSURANCE ACTIVITIES (40500)

### 6.1 Nuclear Safety Oversight Committee (NSOC) Meeting

The inspector attended portions of the June 1, 1994 NSOC meeting. Issues discussed included events which occurred during the Unit 1 outage, summary reports of the quality groups, and assessments of the effectiveness of the licensee departments. The proceedings appeared to address relevant topics, and the deliberations appeared effective in identifying problems and performance trends. The inspector noted probing involvement and questions by nonlicensee NSOC members and less willingness to question the adequacy of existing processes by the licensee members of the NSOC. These observations were noted to the NSOC.

Conclusion The NSOC members of the licensee staff appeared to be less critical of plant processes than the nonlicensee staff members. Since these licensee members were also managers, this was an indication of a less than optimum self-critical attitude by some licensee managers.

### 6.2 Quality Assurance Audit of Eagle 21 Upgrade RPS System

The inspector reviewed a Quality Assurance audit of the Eagle 21 Upgrade to the RPS to determine if the audit had been planned and executed in an appropriately disciplined and probing manner by qualified individuals. The audit appeared to have been planned in a detailed manner and to have been probing and questioning of the new Westinghouse Eagle 21 software and hardware RPS upgrade installation. The auditors had appropriate technical background for the areas to be inspected. The audit identified that a Westinghouse software constant was nonconservative. The audit appeared to be probing and in-depth and examined the Westinghouse design basis and software validation, as well as the plant specific implementation.

Conclusion The audit appeared effective and appropriate. The identification of a nonconservative Westinghouse supplied constant for the RPS was a noteworthy strength.

## 7 IN-OFFICE REVIEW OF LICENSEE EVENT REPORTS (90712)

The following licensee event reports were closed based on in-office review:

- 275/94-02, Revision 0 Loss of Temporary Control Room Annunciator Due to Personnel Errors



- 275/94-07, Revision 0 Unplanned Diesel Generator Start Due to Shorting of Potential Transformer Undervoltage Sensing Circuit
- 275/94-08, Revision 0 RHR Suction Valve Leak Test Procedure Inadequate Due to Personnel Error
- 275/94-11, Revision 0 Unplanned Diesel Generator Start Due to Shorting of Potential Transformer Undervoltage Sensing Circuit
- 275/94-12, Revision 0 Containment Airlock Backup Overcurrent Protection Outside Design Basis Due to Personnel Error
- 323/94-01, Revision 0 Unit 2 Shutdown Due to Unisolable Reactor Coolant System Leak



## ATTACHMENT 1

### 1 PERSONS CONTACTED

#### 1.1 Licensee Personnel

G. M. Rueger, Senior Vice President and General Manager,  
Nuclear Power Generation Business Unit  
J. D. Townsend, Vice President, Diablo Canyon Operations, and Plant Manager  
\*W. H. Fujimoto, Vice President, Diablo Canyon Operations, and Plant Manager  
\*R. P. Powers, Manager, Nuclear Quality Services  
T. L. Grebel, Supervisor, Regulatory Compliance Supervisor  
\*J. S. Bard, Director, Mechanical Maintenance  
\*G. M. Burgess, Director, Systems Engineering  
S. G. Chesnut, Reactor Engineer Supervisor  
\*W. G. Crockett, Manager, Technical and Support Services  
\*S. R. Fridley, Director, Operations  
R. D. Glynn III, Supervisor, Quality Assurance  
B. W. Giffin, Manager, Maintenance Services  
J. J. Griffin, Group Leader, Onsite Engineering  
\*C. R. Groff, Director, Plant Engineering  
\*J. A. Hays, Director, Onsite Quality Control  
J. R. Hinds, Director, Nuclear Safety Engineering  
\*K. A. Hubbard, Engineer, Regulatory Compliance  
J. C. Kelly, Mechanical Group Leader, Nuclear Engineering Services  
\*M. E. Leppke, Assistant Manager, Technical Services  
\*D. B. Miklush, Manager, Operations Services  
J. E. Molden, Director, Instrumentation and Controls  
\*T. A. Moulia, Assistant to Vice President, Plant Management  
\*M. D. Nowlen, Director, Instrumentation and Controls  
S. R. Ortore, Director, Electrical Maintenance  
\*B. H. Patton, Director, Technical and Support Services  
P. G. Sarafian, Senior Engineer, Nuclear Quality Services  
\*J. A. Shoulders, Director, Onsite Nuclear Engineering Services  
\*D. A. Taggart, Director, Onsite Quality Assurance  
\*D. A. Vossburg, Acting Manager, Maintenance Services  
\*J. M. Welch, Supervisor, Training

#### 1.2 NRC Personnel

\*M. Miller, Senior Resident Inspector  
M. Tschiltz, Resident Inspector

\*Denotes those attending the exit meeting on June 7, 1994.

In addition to the personnel listed above, the inspectors contacted other personnel during this inspection period.

### 2 EXIT MEETING

An exit meeting was conducted on June 7, 1994. During this meeting, the inspectors reviewed the scope and findings of the report. The licensee



acknowledged the inspection findings documented in this report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.



ATTACHMENT 2

ACRONYMS

LTOP	low temperature over pressure protection system
NSOC	Nuclear Safety Oversight Committee
QC	quality control
RCS	reactor coolant system
RPS	reactor protection system
RHR	residual heat removal
SSPS	solid state protection system
TS	Technical Specification
UE	Unusual Event
UVTA	undervoltage trip attachment

