ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.:	50-275 50-323
License Nos.:	DPR-80 DPR-82
Report No.:	50-275/98-14 50-323/98-14
Licensee:	Pacific Gas and Electric Company
Facility:	Diablo Canyon Nuclear Power Plant, Units 1 and 2
Location:	7 ½ miles NW of Avila Beach Avila Beach, California
Dates:	August 2 through September 12, 1998
Inspectors:	David L. Proulx, Senior Resident Inspector Donald B. Allen, Resident Inspector Dyle G. Acker, Resident Inspector John G. Kramer, Resident Inspector, San Onofre Brad J. Olson, Project Inspector
Approved By:	Gregory A. Pick, Acting Chief, Reactor Project Branch E
ATTACHMENT:	Supplemental Information

EXECUTIVE SUMMARY

Diablo Canyon Nuclear Power Plant, Units 1 and 2
NRC Inspection Report 50-275/98-14; 50-323/98-14

This inspection included aspects of licensee operations, maintenance, engineering, and plant support. The report covers a 6-week period of resident inspection.

Operations

- During two unplanned power reductions on Unit 1, operator performance was conservative and in accordance with procedures (Section O1.1).

- A noncited violation was identified for failure to maintain procedures that controlled the positions allowed to maintain an active operator license consistent with the requirements specified in 10 CFR 55.53. Specifically, the licensee allowed credit for the work control shift foreman, as adequate to meet minimum on-shift hours to maintain a license active, although this position required a minimal amount of time directing or supervising licensed reactor operators. Also, the licensee inappropriately reactivated the licenses of two individuals using this provision during the past year; however, no operator certifications were currently invalid since personnel had stood the required number of proficiency watches (Section O5.1).

- Operator training (class room and simulator) on the effects of a loss of offsite power and unit trip for the startup transformer cold wash was good. Training personnel, Operations management, shift supervision, and operators provided valuable insights into the expected plant response and suggested more effective methods to mitigate a potential event (Section O5.2).

Maintenance

- Maintenance activities observed were performed well and in accordance with procedures (Section M1.1).

- Based on review of licensee planning documentation and observation of training, briefings, and the actual work, the inspectors considered the Unit 1 auxiliary saltwater traveling screen replacement as well planned and performed maintenance on an important safety system. Although the risk assessment was acceptable and indicated only a slight increase in risk for doing the work on-line, the risk comparison between on-line and shutdown was not meaningful for the on-line replacement of the Unit 1 traveling screen (Section M1.2).

Engineering

- The justification for deferral of inservice testing, from quarterly during operation to cold shutdown, for several postaccident sampling system valves was weak in that the basis for deferral failed to recognize that the applicable valves were exercised monthly during sampling (Section E8.2).

Plant Support

- A violation of Technical Specification 6.8.1.h was identified for failure to maintain fire protection procedures, in that the fire impairment procedure defined a continuous fire watch as a 15-minute roving fire patrol. The licensee intended its use in only limited applications but did not communicate their expectations properly; therefore, the licensee used this provision on several occasions inappropriately. Because the licensee had implemented appropriate corrective actions, no response was required for this violation (Section F8.1).

- A noncited violation of Technical Specification 6.8.1.h was identified for failure to establish procedures implementing surveillance tests and compensatory measures for fire suppression systems in 18 fire areas. This violation was identified by the licensee in 1996 and had occurred in 1984, as documented in a licensee event report (Section F8.2).

Report Details

Summary of Plant Status

Unit 1 began this inspection period at 100 percent power. On September 4, 1998, Unit 1 was reduced to 50 percent power to clean the main condenser and was returned to 100 percent power on September 5. Operators reduced reactor power to 70 percent to repair Heater Drip Pump 2 on September 7 and returned Unit 1 to 100 percent power on September 9. Unit 1 continued to operate at essentially 100 percent power until the end of this inspection period.

Unit 2 operated at essentially 100 percent power throughout this inspection period.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

The inspectors visited the control room and toured the plant on a frequent basis when on site, including periodic backshift inspections. Housekeeping was excellent throughout safety-related areas. The inspectors verified that the operators entered the proper limiting conditions for operation action statements. In addition, the inspectors noted that reductions in power were performed in accordance with procedures in a conservative manner. In general, operators demonstrated a focus on safety by using 3-way communications, frequently briefing plant status and ongoing evolutions, and peer-checking and self-checking control board manipulations.

O5 Operator Training and Qualification

O5.1 Watch Standing to Maintain Licenses and Senior Licenses Active (92901)

a. Inspection Scope

The inspectors reviewed Procedure OP1.DC12, "Conduct of Routine Operations," Revision 12A, Section 5.12, for requirements to maintain licenses active, Procedure OP1.DC10, "General Authorities and Responsibilities of Operating Shift Personnel," Revision 5, for responsibilities and functions of the various shift positions, and Senior Vice President - Nuclear Power Generation memorandum, dated September 1, 1997, addressing the subject discussed in Procedure OP1.DC10.

b. Observations and Findings

To maintain a license active, Procedure OP1.DC12, Section 5.12, required each license holder to stand a combination of 8-, 10-, or 12-hour watches (from watch relief to watch relief) totaling greater than or equal to 56 hours per calendar quarter in at least one of the following positions: shift supervisor, Unit 1 or 2 shift foreman, work control shift foreman, Unit 1 or 2 senior control operator, Unit 1 or 2 control operator, or Unit 1 or 2 balance of plant control operator. 10 CFR 55.53 stated to maintain active status, the licensee shall actively perform the functions of an operator or senior operator on a

minimum of seven 8-hour or five 12-hour shifts per calendar quarter. 10 CFR 55.4 defined actively performing the functions of an operator or senior operator to mean that an individual has a position on the shift crew that requires the individual to be licensed as defined in the Technical Specifications (TS). TS Table 6.2-1 defined the minimum shift crew composition and specified three operators requiring an operator license for both units in Modes 1, 2, 3, or 4 with at least one operator assigned to each unit. Positions requiring a senior operator license were one shift foreman and one individual with a senior operator license.

In practice, the licensee crew composition was a shift supervisor, a work control shift foreman (during normal day shift), a balance of plant control operator shared between the units and, for each unit, a shift foreman, a control operator, and a senior control operator. The inspectors reviewed the shift watch list for 30 days and noted that the senior operator license position was generally designated as filled by the second shift foreman but was sometimes satisfied by the shift supervisor or the work control shift foreman.

NUREG-1262 provided an acceptable method to satisfy the requirements to maintain an active license. If there are additional people on shift beyond the minimum staffing requirements, the licensee must maintain administrative control over these designated watchstanders. Specifically, the licensee must be satisfied that these individuals maintain their proficiency by manipulating the controls of the facility, in the case of an operator, or by manipulating the controls and directing the licensed activities of licensed operators, in the case of a senior operator.

In response to inspectors' questions about an incident at another facility, the licensee reviewed their current practice and determined that no individual was currently maintaining his/her license active, solely, by standing watch as work control shift foreman. Each senior operator had stood sufficient watches as unit shift foreman in the previous calendar quarter. The licensee identified two individuals that had reactivated their license by standing watches, at least in part, in the work control shift foreman positions; however, those individuals had stood additional watches under instruction to satisfy the requirements of 10 CFR Part 55. The licensee had considered the work control shift foreman position to be an active part of the crew, with work location and duties in the control room. Also, the licensee considered that the NRC requirements were somewhat unclear but admitted that the work control shift foreman did not directly oversee the licensed activities of licensed individuals for a significant amount of the shift. Consequently, the licensee modified Procedure OP1.DC12 by an on-the-spot change to delete this position as one that could be used to satisfy the requirements for maintaining a license active. The procedure was further clarified to require five 12-hour watches and to distinguish between those positions required to maintain a license or a senior license active.

Not maintaining the watchstanding procedure consistent with the requirements of 10 CFR Part 55 demonstrated a failure in the program for ensuring license qualifications were maintained active. This nonrepetitive, licensee-identified and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the NRC Enforcement Policy. Specifically, the violation was identified by the licensee, it was not

willful, actions taken as a result of a previous violation should not have corrected this problem, and appropriate corrective actions were completed by the licensee . (50-275;323/9814-01)

c. Conclusions

A noncited violation was identified for failure to maintain procedures that controlled the positions allowed to maintain an active operator license consistent with the requirements specified in 10 CFR 55.53. Specifically, the licensee allowed credit for the work control shift foreman, as adequate to meet minimum on-shift hours to maintain a license active, although this position required a minimal amount of time directing or supervising licensed reactor operators. Also, the licensee inappropriately reactivated the licenses of two individuals using this provision during the past year; however, no operator certifications were currently invalid since personnel had stood the required number of proficiency watches.

O5.2 Operator Training on Startup Transformer Cold Wash - Units 1 and 2

a. Inspection Scope (71707)

Because the licensee intended to deenergize the startup transformers for insulator cleaning (cold wash), on August 7, 1998, the inspectors observed operator training performed in the classroom and simulator and reviewed Procedure TP TO-9804, "Cold Wash Of SUT 1-1 & 2-1 and Associated Components," Revision 0.

b. Observations and Findings

The classroom training included discussions on the positions each operator would fill and how they would respond to a loss of offsite power and reactor trip. The classroom training provided a good basis for the simulator training. In addition, Procedure TP TO-9804 prerequisites and precautions and limitations were discussed.

The operators (licensed and nonlicensed) were given a simulator scenario that began with both units at 100 percent power with the startup transformers cleared for the cold wash and with one bank of pressurizer backup heaters supplied by power from a Class 1E source. The units experienced a loss of offsite power that resulted in a unit trip and loss of the reactor coolant pumps. The operators appropriately entered the emergency operating procedures in response to the event. The operators simulated actions performed outside the control room with the field operators. During a postdrill critique, training personnel, Operations management, shift supervision, and operators commented on the drill and what could be done to improve the outcome should an actual event occur.

One of the suggestions from the critique included placing two pressurizer heater banks on the Class 1E power supplies to provide an immediate source of heaters to control pressure and reduce the likelihood of reaching a safety injection setpoint. The licensee incorporated the suggestion into Procedure TP TO-9804. The inspectors reviewed the Final Safety Analysis Report (FSAR) Update and observed that the transfer of the

pressurizer heater power supplies can be performed manually (in accordance with operating procedures) in less than 60 minutes using manual transfer switches. In addition, the inspectors reviewed the TS and concluded that placing the heaters on the Class 1E source prior to performing the cold wash was acceptable.

c. Conclusions

Operator training (classroom and simulator) on the effects of a loss of offsite power and unit trip during the startup transformer cold wash was good. Training personnel, Operations management, shift supervision, and operators provided valuable insights into the expected plant response and suggested more effective methods to mitigate a potential event.

O8 Miscellaneous Operations Issues (92700, 92901)

O8.1 (Closed) Licensee Event Report (LER) 50-275/98-006-00: TS 3.0.3 entered because of a rod position indication system power supply failure

The licensee repositioned the control selector switch to the failed data channel in accordance with annunciator response procedures, resulting in a loss of digital rod position indication. The operators selected the operable Group B indication, restoring indication. The failed part was original plant equipment and was judged by the licensee to be an end-of-life failure. The inspectors reviewed the LER, the annunciator procedures, and the action request and determined that the actions taken were as directed by the procedures. The inspectors concluded that the corrective actions were satisfactory. No new issues were revealed from review of the LER.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Maintenance Observations

a. Inspection Scope (62707)

The inspectors observed portions of the following work activities:

- MP E-57.10B, "Generic Motor Preventative Maintenance," Revision 9
- MP M-56.7, "Lubricant Sampling," Revision 7
- MP E-57.14A, "High Voltage Testing of Electrical Equipment," Revision 6
- Work Order ROI67101, "Auxiliary Feedwater Pump Preventative Maintenance"

b. Observations and Findings

On September 1, 1998, the inspectors observed portions of the preventive maintenance performed on the motor of the Unit 2 Auxiliary Feedwater Pump 2 in accordance with Procedure MP E-57.10B. The technicians had the work package at the job site and performed the steps as written. The torque wrench used to verify the motor lead connections was calibrated within its required frequency. The technicians were

knowledgeable about the equipment and work procedures. The condition of the motor was acceptable. The outboard and inboard motor bearing oil was sampled in accordance with Procedure MP M-56.7. The mechanic noted that the drain plug for the inboard bearing had a rounded head and would be difficult to remove in the future and modified the work package scope to replace the drain plug. The inspectors walked down the clearance and observed that the man-on-line danger tags and the red maintenance tag were properly hung and that the equipment was in the required configuration.

c. Conclusions

The maintenance activities observed were performed well and in accordance with procedures. The clearances were properly hung and were adequate to protect personnel and equipment.

M1.2 Unit 1 Auxiliary Saltwater (ASW) Traveling Screen Replacement

a. Inspection Scope (62703)

The inspectors reviewed the planning and risk analysis for replacement of the Unit 1 ASW traveling screen, which began on August 10, 1998. The inspectors observed control room activities and briefings associated with the screen replacement and also observed the work in progress.

b. Observations and Findings

System Design

The ASW system was designed to draw water from the Pacific Ocean (the ultimate heat sink) through a common intake screen. FSAR Update, Section 9.2.7.2.3, indicated that two ASW pumps on each unit share a common traveling screen to remove floating debris from the incoming seawater. If this screen becomes clogged with debris, seawater may be valved to the ASW pump bays from the circulating water pump bays for the respective unit. This alternate flow path was a 24-inch demusseling line, which contained air-operated butterfly valves. In addition, an ASW pump from one unit could be lined up to supply cooling to the other unit.

As discussed in NRC Inspection Reports 50-275;323/97-202 and 98-05, neither the traveling screens nor the demusseling line were safety-related but were considered by the licensee as Design Class II. The licensee had implemented no provisions in the design to ensure that the flow path could be placed in service under all plant conditions, including a seismic event. In addition, the licensee stroke tested the demusseling valves but did not test or maintain the flow path through the valves. The NRC staff was currently reviewing the acceptability of this design, as part of Inspection Followup Item 50-275,323/9805-01.

The inspectors also noted that, during periods of elevated ocean temperatures (greater than 64°F), both ASW trains were required to run in both units, which potentially limited the availability of the Unit 2 ASW pumps for support of Unit 1.

Licensee Planning for Traveling Screen Replacement

The licensee estimated it would take 7 days inclusive to install a fixed screen in front of the traveling screen, remove the traveling screen from service, and install upgraded equipment. Given the importance of the traveling screen and the potential lack of an alternative safety-related source of cooling, the inspectors reviewed the preparations, including the risk assessment in detail.

The licensee planned to: (1) clean the temporary fixed screen using a diver twice a day, with the diver at the site for 12 hours and on call for 12 hours; (2) install a differential pressure gage across the temporary screen to alert operators to clogging; (3) develop a special procedure for operators to follow should the screen become clogged; (4) start the work only if no storm swells were predicted and inspections indicated little kelp intrusion; (5) harvest kelp prior to beginning the work; and (6) train all operating crews on the special procedure.

The inspectors concluded that the planning was very through. However, the inspectors noted that the planning and risk assessment assumed that only one ASW pump was needed. The inspectors noted that seawater temperatures had recently been as high as 62.4°F. The inspectors questioned the licensee on their plans related to starting the second ASW pump for each unit. The licensee reviewed past ocean temperatures for mid-August and noted that there was no record of temperatures reaching 64°F; however, the licensee acknowledged that ocean temperatures were unusually high this year. In response, the licensee added contingency instructions for ocean temperatures above 64°F.

Licensee Risk Assessment

The licensee planned the screen replacement with both units on-line since the area was experiencing a high demand for electrical power. The licensee performed a qualitative risk assessment that compared the risk of performing the screen replacement on-line versus with the plant shut down for Refueling Outage 1R9 in February 1999. The licensee also assessed the risk associated with performing the maintenance on line during different periods. The risk assessment demonstrated that the period between April and September was the most favorable time for the traveling screen replacement. This is because storm generated debris, ocean kelp, is minimal during this period. Ocean kelp blockage on the circulating water screens has resulted in the plant having to reduce power or shutdown in the past (four LERs identified required plant shutdowns because kelp overloaded the circulating water screens).

The risk assessment identified the operator actions and equipment required to be available that would be significant contributors to reducing the overall risk during the ASW traveling screen replacement. The potential common cause failure of the drives for the ASW screens was the most significant contributor to risk while replacing the

traveling screens and resulted from the buildup of ocean kelp. The inspectors noted that the probabilistic risk assessment explicitly modeled ASW common cause failures. Other circumstances that could potentially increase the risk during the period the Unit 1 traveling screens were replaced included: (1) failure to perform a cross-tie of the Unit 2 to Unit 1 ASW system; however, the licensee had identified this as a highly reliable operator action from both the control room and locally and (2) failure to maintain the availability of the alternate charging pump cooling water (fire water) on a loss of ASW, which is the success path for a loss of the ASW system.

The inspectors determined the increase in the core damage frequency and overall risk for the period in which the traveling screens were to be replaced with Unit 1 on-line was low. The risk assessment appropriately addressed the factors that were important to reduce the overall risk. The most significant risk reducer was the identification of the periods when kelp intrusion was most likely and planned performance of the maintenance during alternate periods.

However, the inspectors' noted that the risk comparison between performing the activity on-line versus with the plant shut down was not comprehensive and did not provide a meaningful assessment of the on-line versus shutdown risk since all possible combinations were not evaluated. The shutdown risk included the period when kelp intrusion was more likely and did not consider plant configurations where decay heat was low and support systems (above minimum required) were available. In addition, the analysis did not compare the risk of performing the work during a period when kelp intrusion was less likely and the plant shut down.

Traveling Screen Replacement

After verifying all prerequisite weather and site conditions were acceptable the licensee started replacement of the ASW traveling screens on August 10. The control room briefing was thorough and operations oversight of the work was extensive. The craft and diver worked closely together to ensure that the traveling screen work did not introduce foreign material into the ASW system. The diver kept the temporary screen clean without any problems. The craft finished traveling screen replacement and testing in 4 days, thus minimizing the use of the temporary screen.

c. Conclusions

Based on review of licensee planning documentation and observation of training, briefings, and the actual work, the inspectors considered the Unit 1 ASW traveling screen replacement as well planned and performed maintenance on an important safety system. Although the risk assessment was acceptable and indicated only a slight increase in risk for doing the work on-line, the risk comparison between on-line and shutdown was not meaningful for the on-line replacement of the Unit 1 traveling screen.

M1.3 Surveillance Observations

a. Inspection Scope (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 the 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.

The inspectors observed all or portions of the following surveillances:

- STP I-1A "Routine Shift Checks Required By Licenses," Revision 70
- STP I-1B "Routine Daily Checks Required By Licenses," Revision 65
- STP R-2B1 "PPC Operator Heat Balance," Revision 9A
- STP M-9A "Diesel Engine Generator [2-1] Routine Surveillance Test," Revision 20

b. Observations and Findings

The operators performing the surveillances were familiar with the indications, controls and plant process computer screens that were used. The procedures were in hand and were the most current revisions. The procedure or checklists were signed or checked as the steps were performed. Where the procedure provided optional methods, the operators were knowledgeable of the alternate methods and when to use them. Where the procedure had conditional steps, the operators understood the various conditions described and how to implement them. In general the data recorded satisfied the TS and procedural acceptance criteria. Some known conditions existed, which were documented in the remarks section as required by the procedure.

c. Conclusions

The inspectors found that the surveillances observed were being performed at the required time and frequency. The procedures governing the surveillance tests were technically adequate and personnel performing the surveillance demonstrated an adequate level of knowledge. The inspectors noted that test results appeared to have been appropriately dispositioned.

M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) Violation 50-323/9706-02: Failure to properly install breaker cubicle fasteners

The violation involved the identification that three of the four fasteners for the safety injection pump breaker cubicle were loose. For corrective actions, the licensee:

(1) tightened the loose fasteners in accordance with the applicable maintenance procedure, (2) performed a detailed analysis to demonstrate the operability of the safety injection system despite the loose fasteners, and (3) revised the operator round sheets to require that nuclear operators check vital breaker cubicle fasteners on a weekly basis. The inspectors reviewed the documentation provided by the licensee that demonstrated adequate completion of these items. In addition, the inspectors toured the auxiliary building and verified that no similar conditions existed. The inspectors found these corrective actions to be satisfactory.

III. Engineering

Miscellaneous Engineering Issues (92700, 92903)

E8.1 (Closed) LER 50-275/96-007-00: Potential charging pump throttle valve blockage

Radiography indicated the potential for emergency core cooling system throttle valve blockage because of openings in the centrifugal charging pump manual throttle valves and safety injection to cold leg manual throttle valves were less than the 0.265 inch diagonal openings in the containment recirculation sump debris screen. The corrective actions included: (1) a design modification completed on the containment sump screens that reduced the diagonal openings, (2) notification of the vendor of the concern, and (3) design changes to the safety injection and charging lines to install pressure reducing orifices that limit the amount of throttling required by the valves. The corrective actions have been completed with the exception of installing the pressure reducing orifices in Unit I, which were scheduled for the next refueling outage, 1R9. The design change for the Unit 2 containment recirculation sump screen was described in NRC Inspection Report 50-275;323/98-07.

E8.2 (Closed) Unresolved Item 50-275,323/9808-02: Failure to perform inservice testing for several postaccident sampling system (PASS) valves

This item was opened to determine whether the failure to perform inservice tests for several PASS valves violated NRC requirements. The inspectors noted that the second 10-year interval of the inservice test program committed to Operations and Maintenance Code ASME OMA-1988 Part 10, "Inservice Testing of Valves in Light-Water Reactor Power Plants," for inservice testing of safety-related valves. Section 4.2.1 of this document requires that all active valves be stroke tested quarterly. Section 4.2.1.2 further states that, if exercising the valve is not practicable during plant operation, the testing may be limited to cold shutdowns. Section 6.2 requires the licensee to maintain a record of test plans that include justification for deferral of stroke time testing.

The inservice test plan contained a number of cold shutdown justifications (CSJ) that deferred testing of safety-related valves. The inspectors noted that CSJ V-CS25 deferred 17 valves to cold shutdown on the basis that the valves could only be opened under administrative controls. Most of these valves were a part of PASS. However, the basis for CSJ V-CS25 failed to recognize that the chemistry personnel routinely

exercised the PASS valves monthly during plant operations to draw samples. Therefore, the inspectors concluded that it was possible to exercise PASS valves on a quarterly basis during plant operation for testing.

The licensee initiated Action Request A0460656 to evaluate the inspectors' concern. The licensee agreed that CSJ V-CS25 was flawed because of the routine exercising of the PASS valves for other purposes. The evaluation concluded that it was desirable to continue to operate the PASS containment isolation valves while the plants were on-line to draw PASS samples and verify system operability. The licensee commenced quarterly testing of these valves. However, the licensee concluded that the failure to perform quarterly tests of several valves in the PASS system did not violate NRC requirements. The licensee noted that the NRC reviewed and approved the inservice test plan, including CSJ V-CS25. The inspector reviewed the NRC safety evaluation report and noted that the NRC had approved CSJ V-CS25.

c. Conclusions

The justification for deferral of inservice testing, from quarterly during plant operation to cold shutdown, for several PASS valves was weak in that the basis for deferral failed to recognize that the applicable valves were exercised monthly during sampling.

E8.3 (Closed) Unresolved Item 50-275/9606-06: Review and update of the FSAR

In February 1996, the licensee initiated a nonconformance report to document a program to review the accuracy of the FSAR. The licensee identified and corrected many discrepancies when the FSAR Update was reissued in its entirety through Revision 11, dated November 25, 1996. On February 6, 1997, in response to an NRC request for information pursuant to 10 CFR 50.54 (f), the licensee submitted a letter that described their program and actions to ensure conformance with the Diablo Canyon design basis. The licensee indicated that a supplemental revision of the FSAR Update was to be issued to correct remaining discrepancies that were not included in FSAR Update, Revision 11. In addition, the licensee planned a followup review of the FSAR Update to clarify details and enhance accuracy. The licensee issued Revision 11A of the FSAR Update on April 30, 1997.

As documented in NRC Inspection Report 50-275;323/97-06, the inspectors reviewed changes that were included in Revision 11 to the FSAR Update and found that many of the changes appeared to be editorial or provided clarification for agreement with existing plant conditions and/or the associated design criteria memorandum. Subsequently, inspectors sampled and reviewed licensee safety evaluations for changes made in FSAR Update Revisions 11 and 11A. From that review, the inspectors did not find that the FSAR Update changes involved unreviewed safety questions.

On April 25, 1997, the licensee documented their program for further review of the FSAR Update. This program included the use of dedicated teams to address specific topical areas of the FSAR Update to ensure that the licensing bases are consistent wit

h the design basis and accurately reflect plant information. This item is closed based on this FSAR Update review program, which has been described to the NRC and was of sufficient scope to resolve any outstanding issues.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 General Comments (71750)

The inspectors evaluated radiation protection practices during plant tours and work observation. The inspectors determined that personnel donned protective clothing and dosimetry properly and that radiological barriers were properly posted.

S1 Conduct of Security and Safeguards Activities

S1.1 General Comments (71750)

During routine tours, the inspectors noted that the security officers were alert at their posts, security boundaries were being maintained properly, and screening processes at the primary access point were performed well. During backshift inspections, the inspectors examined protected area illumination, especially in areas where temporary equipment was located.

F8 Miscellaneous Fire Protection Issues (92904)

F8.1 (Closed) Unresolved Item 50-275,323/9808-05: Performance of 15-minute fire tours for continuous fire watches

The FSAR Update, Section 9.5.1, described the Fire Protection Program required by License Condition 2.C.(5). Fire protection TS were relocated to the Equipment Control Guidelines (ECG), which are licensee controlled specifications not requiring NRC approval to amend.

ECG 18.7 provided the actions necessary to compensate for inoperable fire barriers such as fire doors, fire rated assemblies, fire seals, or fire dampers. If a fire rated assembly was inoperable, this ECG required personnel to establish an hourly fire patrol as long as the automatic detection or suppression systems were verified as operable. If the detection and suppression systems were inoperable, ECG 18.7 required a continuous fire watch for inoperable fire rated assemblies. However, the licensee revised ECG 18.7 and the fire protection plan in FSAR Update Section 9.5.1 to define a continuous fire watch as follows: "A fire watch is considered continuous if the patrol can monitor the immediate vicinity of the non-functional fire rated assembly at least once per 15 minutes." In addition, Procedure OM8.ID2, "Fire System Impairment," Revision 6, Section 3.12.2 contained the same definition of a continuous fire watch.

The inspectors interviewed several shift supervisors who stated that they had used this definition of continuous fire watch so that more than one fire area could be covered by a

single person. These uses included the fire watches roving from one fire area to another and from one building to another. However, the original intent was to employ the revised definition only on very limited cases (e.g., if two small and adjacent rooms, such as battery rooms, required a continuous fire watch).

The NRC's Office of Nuclear Reactor Regulation reviewed the issue of substituting a 15-minute roving patrol for a continuous fire watch at another nuclear facility. The NRC review concluded that the definition of a continuous fire watch at that facility was not consistent with the NRC's intent. In addition, the NRC concluded that use of this provision was not appropriate at other facilities either. Therefore, defining a continuous fire watch as a 15-minute roving patrol without any restriction on its use indicated that the licensee did not adequately maintain its fire protection procedures. The failure to adequately maintain Procedure OM8.ID2 is a violation of TS 6.8.1.h (50-275;323/9814-02).

For corrective actions the licensee proposed to: (1) provide shift orders to operators to reemphasize management's expectations concerning continuous fire watches, (2) revise Procedure OM8.ID2 to reflect management's expectations, (3) submit an exemption to the NRC to allow redefining a continuous fire watch under limited circumstances, and (4) revise ECG 18.7 to correct the revised definition of a continuous fire watch. The inspectors reviewed the corrective actions and found them satisfactory; therefore, no response is required for this violation.

F8.2 (Closed) LER 50-275/84-048-00: TS 6.8.1.h not met because of a programmatic deficiency

In April 1996, the licensee identified that in 1984, prior to startup, administrative controls had not been established for surveillance tests and compensatory measures for various fire suppression systems and fire areas. The suppression systems and fire areas were included in Diablo Canyon Safety Evaluation Reports 23 and 31 issued June 1984 and April 1985, respectively. The licensee indicated that 1 hour fire watch patrols had been in effect in the identified areas, except for one fire area that contained no flammable materials. As corrective action, the licensee included the fire suppression systems and fire areas in procedures which contained surveillance tests and compensatory measures, and the inspectors confirmed that the procedures were appropriately revised. Failure to establish procedures for aspects of the fire protection program is a violation of TS 6.8.1.h. However, this nonrepetitive, licensee-identified and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the NRC Enforcement Policy. Specifically, the violation was identified by the licensee, it was not willful, actions taken as a result of a previous violation should not have corrected this problem, and appropriate corrective actions were completed by the licensee (50-275;323/9814-03).

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on September 18, 1998. The licensee acknowledged the findings presented.

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

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

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INSPECTION PROCEDURES (IP) USED

IP 37551	Onsite Engineering
IP 61726	Surveillance Observations
IP 62707	Maintenance Observation
IP 71707	Plant Operations
IP 71750	Plant Support Activities
IP 92700	Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92901	Followup - Operations
IP 92902	Followup - Maintenance
IP 92903	Followup - Engineering
IP 92904	Followup - Plant Support

ITEMS OPENED AND CLOSED

Opened

50-275,323/ 9814-02	VIO	Performance of 15 minute roving patrols in lieu of continuous fire watches (Section F8.1)

Closed

50-275/98-006	LER	TS 3.0.3 entered because of rod position indication system power supply failure (Section O8.1)

50-323/9706-02	VIO	Failure to properly install breaker cubicle fasteners (Section M8.1)
50-275/96-007	LER	Potential charging pump throttle valve blockage (Section E8.1)
50-275,323/ 9808-02	URI	Failure to perform inservice test for several PASS valves (Section E8.2)
50-275/9606-06	URI	Review and update of the FSAR (Section E8.3)
50-275,323/ 9808-05	URI	Performance of 15-minute roving patrols in lieu of continuous fire watches (Section F8.1)
50-275/84-048-00	LER	TS 6.8.1.h not met because of a programmatic deficiency (Section F8.2)

Opened and Closed

50-275,323/ 9814-01	NCV	Contrary to 10 CFR Part 55 failure to properly maintain procedures for control of active licenses (Section O5.1)
50-275,323/ 9814-03	NCV	Failure to establish procedures implementing portions of the fire protection program (Section F8.2)

LIST OF ACRONYMS USED

ASME	American Society of Mechanical Engineers
ASW	auxiliary saltwater
CFR	Code of Federal Regulations
CSJ	cold shutdown justification
ECG	equipment control guideline
FSAR	Final Safety Analysis Report
IP	inspection procedure
LER	licensee event report
NCV	noncited violation
NRC	Nuclear Regulatory Commission
PASS	post accident sampling system
PDR	Public Document Room
TS	Technical Specification
URI	unresolved item
VIO	violation