



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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May 19, 2000

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and General Manager
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Nuclear Power Generation, B32
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SUBJECT: NRC'S DIABLO CANYON FIRE PROTECTION TRIENNIAL BASELINE
INSPECTION REPORT NUMBER 50-275/00-03; 50-323/00-03

Dear Mr. Rueger:

On April 3 to 7, 2000, the NRC conducted a fire protection triennial baseline inspection of your Diablo Canyon reactor facility. The enclosed report presents the results of that inspection. The team leader presented these findings to Mr. D. Oatley and other members of your staff in an exit meeting on April 7, 2000, at the Diablo Canyon reactor facility.

In this inspection, the NRC evaluated the effectiveness of activities conducted under your license as they related to implementation of your NRC-approved Fire Protection Program. Based on the results of this inspection, the NRC did not identify any discrepancies.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Dr. Dale A. Powers, Acting Chief
Engineering and Maintenance Branch
Division of Reactor Safety

Docket Nos.: 50-275; 50-323
License Nos.: DPR-80; DPR-82

Enclosure:

NRC Inspection Report No. 50-275/00-03; 50-323/00-03

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.: 50-275; 50-323

License Nos.: DPR-80; DPR-82

Report No.: 50-275/00-03; 50-323/00-03

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: April 3 to 7, 2000

Team Leader: R. Nease, Senior Reactor Inspector
Engineering and Maintenance Branch

Inspectors: C. Johnson, Senior Reactor Inspector
Engineering and Maintenance Branch

R. Mullikin, Senior Reactor Inspector
Engineering and Maintenance Branch

Accompanying Personnel: P. Qualls, Fire Protection Engineer
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F. Wyant, Contractor
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Approved By: Dr. D. A. Powers, Acting Chief
Engineering and Maintenance Branch
Division of Reactor Safety

ATTACHMENTS:

Attachment 1: Supplemental Information

Attachment 2: NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

Diablo Canyon Nuclear Power Plant, Units 1 and 2
NRC Inspection Report No. 50-275/00-03; 50-323/00-03

The objective of the triennial fire protection team inspection was to evaluate whether the licensee had implemented a fire protection program that: (1) adequately controls combustibles and ignition sources within the plant; (2) provides adequate fire detection and suppression capability; (3) maintains passive fire protection features in good material condition; (4) puts adequate compensatory measures in place for out-of-service, degraded, or inoperable fire protection equipment, systems or features; and (5) ensures that procedures, equipment, fire barriers, and systems exist so that the post-fire capability to safely shut down the plant is ensured. The inspection was performed in accordance with the new NRC regulatory oversight process using a risk-informed approach for selection of fire areas and attributes for the inspection focus. Inspection effort included a 2-day information gathering trip to the Diablo Canyon Nuclear Power Plant on March 21 to 22, 2000, and 1 week of onsite inspection from April 3 to 7, 2000. Following the onsite inspection, the team requested additional information, which was received in the NRC's Region IV offices on May 10, 2000. The team's review of this additional information was considered to be part of the inspection effort.

Cornerstone: Mitigating Systems

- Green. The team identified that the 1-hour fire-rated ceiling in Fire Area 4A (counting and chemistry laboratory) and the 2-hour fire-rated barrier between Fire Areas 4A and 4B (radiologically controlled area access) were degraded. Specifically, the team identified that the 1-hour fire-rated ceiling in the chemistry laboratory contained holes, non-fire-rated dampers, and gaps around the lighting fixtures. The NRC relied on the 1-hour fire rating of this ceiling as a basis for granting an exemption from the requirement to enclose redundant trains of safe shutdown equipment in a 1-hour fire-rated enclosure as described in 10 CFR Part 50, Appendix R, Section III.G.2.c. In addition, the team observed concrete spalling, holes, and a non-fire-rated penetration in the 2-hour fire-rated barrier between Fire Areas 4A and 4B. Upon further review, the team found that the licensee had previously identified most of these conditions and had taken appropriate compensatory measures. Although the team identified additional minor discrepancies, no additional compensatory measures were warranted. The conditions not previously identified by the licensee were entered into the licensee's corrective action program as Action Requests A05050857, A0505861, and A0505892.

This issue was evaluated using the significance determination process and was determined to be of low risk significance, because barrier degradation was moderate; detection, automatic suppression, and manual suppression met the conditions of the licensing basis for Fire Areas 4A and 4B; and a safe shutdown path remained.

REPORT DETAILS

Summary of Plant Status: During the onsite inspection week, Units 1 and 2 operated at or near full power.

1. REACTOR SAFETY

CORNERSTONES: INITIATING EVENTS and MITIGATING SYSTEMS

1R05 Fire Protection

The purpose of this inspection was to review the Diablo Canyon Nuclear Power Plant Fire Protection Program, for selected risk significant fire areas, with emphasis on verification that the post-fire safe shutdown capability and the fire protection features provided for ensuring that at least one post-fire safe shutdown success path is maintained free of fire damage. The inspection was performed in accordance with the new NRC regulatory oversight process using a risk-informed approach for selecting the fire areas and attributes to be inspected. The team leader and a Region IV senior reactor analyst used the Diablo Canyon Nuclear Power Plant Individual Plant Examination of External Events to choose several risk-significant areas for detailed inspection and review. The fire areas chosen for review during this inspection were:

- Fire Area 4A (counting and chemistry laboratory),
- Fire Area 4B (radiologically controlled area access),
- Fire Area TB-5 (Fire Zones 12B and 13B, 4.16kV switchgear and cable spreading rooms),
- Fire Area 3Q (auxiliary feedwater pump room), and
- Fire Area AB-1 (auxiliary building).

For each of these fire areas, the team focused their inspection on the fire protection features and on the systems and equipment necessary for the licensee to achieve and maintain safe shutdown conditions.

.1 Systems Required to Achieve and Maintain Post-Fire Safe Shutdown

a. Inspection Scope

To ensure that at least one post-fire safe shutdown success path was available in the event of a fire in each of the selected areas, the team reviewed the functional requirements identified by the licensee as necessary for achieving and maintaining hot shutdown conditions and the list of safe shutdown equipment required to accomplish those functions documented in Calculation M-680, "10 CFR 50 Appendix R Safe Shutdown Equipment," Revision 12. The team focused on the following functions that must be ensured to achieve and maintain post-fire safe shutdown conditions:

(1) reactivity control capable of achieving and maintaining cold shutdown reactivity conditions; (2) reactor coolant makeup capable of maintaining the reactor coolant level within the level indication in the pressurizer; (3) reactor heat removal capable of achieving and maintaining decay heat removal; (4) process monitoring capable of providing direct readings of the process variables for accomplishing reactivity control, reactor coolant makeup, and reactor heat removal; and (5) supporting system capable of providing all other services necessary to permit extended operation of equipment necessary to achieving and maintaining hot shutdown conditions.

The team also verified that Calculation M-680 included all equipment necessary for the safe shutdown systems to accomplish the required functions. To do this, the team reviewed the licensee's list of systems selected to accomplish each of the functions necessary for achieving safe shutdown, and the basis for eliminating systems from the list. In addition, the team reviewed system piping and instrumentation drawings to identify the components in each of the safe shutdown systems necessary for system success, including components that could cause flow diversion or system isolation, and valves interfacing with the primary reactor coolant system boundary whose maloperation could result in a loss-of-coolant accident.

b. Issues and Findings

The team did not identify any findings.

.2 Fire Protection Safe Shutdown Analysis

a. Inspection Scope

For each of the selected fire areas, the team reviewed the licensee's safe shutdown analysis documented in Calculation M-928, "10 CFR 50 Appendix R Safe Shutdown Analysis," Revision 9, for each fire area, to ensure that at least one post-fire safe shutdown success path was available in the event of a fire. This included a review of manual actions required to achieve and maintain hot shutdown conditions and to make the necessary repairs to reach cold shut down within 72 hours. The team also reviewed Procedures CP M-10, "Fire Protection of Safe Shutdown Equipment," Revision 14; OP AP-8A, "Control Room Inaccessibility - Establishing Hot Standby," Revision 10; OP AP-8B, "Control Room Inaccessibility - Hot Standby to Cold Shutdown," Revision 9; and OP B-2:V, "RHR - Place In Service During Plant Cooldown," Revision 17, to verify that adequate direction was provided to operators to perform these manual actions. Factors, such as timing, access to the equipment, and the availability of procedures, were considered in the review.

b. Issues and Findings

The team did not identify any findings.

.3 Fire Protection of Safe Shutdown Equipment

a. Inspection Scope

For the selected fire areas, the team evaluated the adequacy of fire suppression and detection systems, fire area barriers, penetration seals, and fire doors to ensure that at least one train of safe shutdown equipment was free of fire damage. To do this, the team observed the material condition and configuration of the installed fire detection and suppression systems, fire barriers, and construction details and supporting fire tests for the installed fire barriers. In addition, the inspectors reviewed the license documentation, such as exemptions and National Fire Protection Association code deviations to verify that the fire barrier installations met license commitments.

b. Issues and Findings

Fire Area 4A - Counting and Chemistry Laboratory

Configuration of Fire Area 4A: Fire Area 4A consisted of the chemistry laboratory and connecting offices, with a dropped 1-hour fire-rated ceiling. The area above the 1-hour fire-rated ceiling contained control cables for the following systems: auxiliary feedwater, auxiliary saltwater, chemical and volume control, and component cooling water. In addition, power cables for all divisions of 480Vac and one division of 4.16kV electrical systems were routed in the area above the 1-hour fire-rated ceiling. Existing fire protection above the ceiling consisted of complete detection and partial automatic suppression at potential ignition sources. Combustible loading above the ceiling was minimal. Below the 1-hour fire-rated ceiling, the licensee provided partial smoke detection, full area automatic suppression, manual hose stations, and portable fire extinguishers.

Licensing Basis of Fire Area 4A: The team reviewed SSER 23, "Supplement No. 23 to Safety Evaluation Report - Diablo Canyon Nuclear Power Station, Units 1 and 2," dated July 2, 1984, and found that for Fire Area 4A, the NRC granted the licensee a deviation from 10 CFR Part 50, Appendix R, Section III.G.2(c) to the extent that it required one shutdown division to be protected by a 1-hour-rated barrier and the installation of area-wide automatic fire detection and fire suppression systems. The NRC granted the deviation based on the following: (1) a 1-hour fire-rated ceiling separating redundant safe shutdown circuits above from the most likely ignition sources below the ceiling, including 1-1/2 hour fire-rated hatches and ventilation dampers; (2) 2-hour fire-rated boundaries; (3) smoke detection above and below the ceiling; (4) low combustibles loading in the fire area; (5) fire suppression located at the primary ignition sources below the ceiling; and (6) the enclosure of all safe shutdown cabling in steel conduit.

Risk Significance of the Degraded 1-Hour Fire-Rated Ceiling in Fire Area 4A : The team noted that the 1-hour fire-rated ceiling contained openings, two non-fire-rated dampers, and gaps around lighting fixtures. In addition, the team observed that the 2-hour fire-rated boundary between Fire Areas 4A and 4B contained openings and exhibited evidence of concrete spalling. The team leader evaluated the risk significance of these observations using the March 8, 2000, revision of the Fire Protection and Post-Fire Safe Shutdown Inspection Findings Evaluation Guidance. A fire in Fire Area 4A could result in the loss of all vital 480Vac power, as well as, the loss of offsite power feed to the 4.16kV buses. However, through the operation of an isolating transfer switch, at least

two of the emergency diesel generators would be available to provide 4.16kV power for pump loads. In addition, licensed operators could manually align valves required to achieve and maintain hot shutdown conditions. These manual actions were described in procedures and were considered by the team to be reasonable and within the capabilities of licensed operators to perform in a timely manner.

The following was considered in evaluating the risk for Fire Area 4A:

- A fire ignition frequency (IF) of 1.386×10^{-3} per year was determined from the licensee's individual plant examination of external events document.
- Degradation of the 1-hour fire-rated ceiling was determined to be moderate (FB = -0.5).
- Although a fire brigade drill was not witnessed by the team, no adverse observations were noted by the NRC within the last 2 years; therefore, manual suppression (MS) was considered to be in its normal operating state (MS = -1.0).
- Automatic suppression was determined to be within its normal operating state (AS = -1.25).
- A common cause term (CC) of +0.25 was used, which takes into account the relationship between automatic fire suppression and manual fire fighting hose systems (CC = +0.25).
- A fire mitigation frequency (FMF) was calculated to be $10^{-5.36}$ per year using the formula, $FMF = \log IF + FB + AS + MS + CC$.
- Based on the length of time the condition existed (greater than 30 days), the likelihood for the initiating event occurrence during the degraded period was rated F.
- Remaining mitigation capability included two trains of safe shutdown equipment, each requiring high stress operator action.

The team leader concluded that the findings for Fire Area 4A were determined to be within the licensee response band (Green).

Risk Significance of the Degraded Fire Barrier Between Fire Areas 4A and 4B: One of the team's observations included degradation of the 2-hour fire-rated barrier between Fire Areas 4A and 4B. The team leader evaluated the risk significance of this observation using the March 8, 2000, revision of the Fire Protection and Post-Fire Safe Shutdown Inspection Findings Evaluation Guidance. The team did not identify any additional Unit 1 equipment that would be lost if a fire affected both Fire Areas 4A and 4B. Therefore, a fire in Fire Area 4A that spreads to Fire Area 4B could result in the loss of all vital 480Vac power to Unit 1, as well as, the loss of offsite power feed to the 4.16kV buses to Unit 1. However, through the operation of an isolating transfer switch, at least two of the emergency diesel generators would be available to provide emergency power. In addition, licensed operators could manually align valves required

to achieve and maintain hot shutdown conditions. These manual actions were described in procedures and were considered by the team to be reasonable and within the capabilities of licensed operators to perform in a timely manner. The team noted that Unit 2 safe shutdown equipment would also be affected by a fire in Fire Area 4A that spreads to Fire Area 4B; however, one division of 480 Vac and at least two of the emergency diesel generators would be available to provide emergency power. In addition, licensed operators could manually align valves required to achieve and maintain hot shutdown conditions. These manual actions were described in procedures and were considered by the team to be reasonable and within the capabilities of licensed operators to perform in a timely manner.

The following was considered in evaluating the risk for a fire that affected both Fire Areas 4A and 4B:

- A fire ignition frequency (IF) of 1.386×10^{-3} per year was determined from the licensee's individual plant examination of external events document. The team leader used the ignition frequency for a fire in Fire Area 4A, because it was the more conservative.
- In consultation with a risk analyst in the Office of Nuclear Reactor Regulation, the team leader used moderate degradation of the 1-hour fire-rated ceiling in Fire Area 4A (FB = -0.5), plus high degradation of the 2-hour fire-rated fire barrier (FB = 0) for a total fire barrier degradation of -0.5. (FB = -0.5).
- Although a fire brigade drill was not witnessed by the team, no adverse observations were noted by the NRC within the last 2 years; therefore, manual suppression (MS) was considered to be in its normal operating state (MS = -1.0).
- Automatic suppression was determined to be within its normal operating state (AS = -1.25).
- A common cause term (CC) of +0.25 was used, which takes into account the relationship between automatic fire suppression and manual fire fighting hose systems (CC = +0.25).
- A fire mitigation frequency (FMF) was calculated to be $10^{-5.36}$ per year using the formula, $FMF = \log IF + FB + AS + MS + CC$.
- Based on the length of time the condition existed (greater than 30 days), the likelihood for the initiating event occurrence during the degraded period was rated F.
- Remaining mitigation capability included two trains of safe shutdown equipment, each requiring high stress operator action.

The team leader concluded that the findings for Fire Areas 4A and 4B were determined to be within the licensee response band (Green).

Licensee Corrective Actions: Upon further review, the team found that in 1994, the licensee identified problems concerning the penetration seals in the fire barrier between Fire Areas 4A and 4B. At that time, the licensee entered the issue in their corrective action program as a nonconformance and posted a 1-hour fire watch for Fire Areas 4A and 4B as compensatory measures. In 1997, during repair of the penetration seals, the licensee identified that the fire barrier between Fire Areas 4A and 4B was degraded to the point that the penetration seals could not be repaired. In addition, the licensee identified discrepancies with the 1-hour fire-rated ceiling in Fire Area 4A. The 1-hour fire watch included Fire Area 4A; therefore, no additional compensatory measures were required. Based on a cost comparison, the licensee decided to combine both Fire Areas 4A and 4B into one fire area, and discussed the modifications with NRC fire protection staff in the Office of Nuclear Reactor Regulation. At the time of the team inspection, the licensee had already completed the required modifications and had prepared a draft 10 CFR 50.59 evaluation which was scheduled to be reviewed and approved by the end of April 2000. Most of the discrepancies concerning the 1-hour fire-rated ceiling in Fire Area 4A had already been identified by the licensee and entered into their corrective action program. The discrepancies that the team observed in the 1-hour fire-rated ceiling in Fire Area 4A, which were not previously identified by the licensee, were entered into the licensee's corrective action program as Action Requests A05050857, A0505861, and A0505892.

.4 Post-Fire Safe Shutdown Circuit Analysis

a. Inspection Scope

On a sampling basis, the team reviewed drawings, schematics, wiring diagrams, and cable routing information associated with systems and components required for post-fire safe shutdown to verify that power and control cables associated with post-fire safe shutdown equipment in the selected fire areas had been identified by the licensee and had been analyzed to show that they would not prevent safe shutdown due to fire-induced hot shorts, open circuits, or shorts to ground. Selected for review were power and control cables for equipment associated with the auxiliary salt water system, auxiliary feedwater system, chemical and volume control system, component cooling water, residual heat removal system, power-operated relief valves and blocking valves, and reactor coolant pump seal injection.

The team evaluated the licensee's circuit analysis, drawings, schematics, and wiring diagrams for components whose inadvertent operation due to fire could initiate a transient, or adversely affect the post-fire safe-shutdown capability. This review also included the licensee's method for addressing potential valve damage resulting from fire-induced spurious actuations, as documented in Calculations J-042, "Motor Operated Rotary Valve and Damper Torque Requirements and Capability," Revision 8, and Calculation V-07, "Motor Operated Valve Sizing and Switch Setting Calculations," Revision 0.

The team reviewed the licensee's fuse/breaker coordination analysis for the 4.16kV and 480Vac switchgear boards and five time-current characteristic curves, as documented in Calculation 134-DC, "Electrical Appendix R Analysis (Section II: Breaker/Fuse Coordination)," Revision 4.

A review of the licensee's common enclosure associated circuit analysis, as documented in Calculation 134-DC, "Electrical Appendix R Analysis (Section VII: Common Enclosures)," Revision 4, was also conducted.

b. Issues and Findings

The team did not identify any findings.

.5 Communications

a. Inspection Scope

The team reviewed the adequacy of the communication system to support plant personnel in the performance of alternative safe shutdown functions and fire brigade duties. The licensee has a plant-wide telephone system, which was the preferred communication system. However, hand held radios were the credited communication system to perform safe shutdown actions. The team verified that portable radios were dedicated for emergency use by operators and fire brigade members. The team also verified that the radios were maintained in a charged state, and that testing had been performed to confirm adequate radio coverage.

b. Issues and Findings

The team did not identify any findings.

.6 Emergency Lighting

a. Inspection Scope

The team reviewed the adequacy of emergency lighting for safe-shutdown activities in the selected fire areas to verify that it was adequate for permitting access to safe shutdown equipment and performing manual actions required to achieve and maintain hot shutdown conditions. To do this, the team reviewed Calculation 335-DC, "10 CFR 50, Appendix R Emergency Lighting and Communications," Revision 4, toured operator pathways to safe shutdown equipment, and observed emergency lighting at control stations, plant parameter monitoring locations, and manual operating stations. Specifically, the team toured diesel generator rooms, component cooling water heat exchanger rooms, the 4.16kV switchgear rooms, and the containment penetration room.

b. Issues and Finding

The team did not identify any findings.

.7 Reactor Coolant Pump Oil Collection System

a. Inspection Scope

The team conducted interviews with cognizant licensee personnel, reviewed excerpts of operator logs from Containment Round Sheet 69-11831-1 for Unit 1, dated January 12, 2000, and Procedure STP M-15A, "Containment Inspection Prior to Establishing Unit Containment Integrity," Revision 9, to ensure that the reactor coolant pump oil collection system collected oil leakage from all potential leakage points.

b. Issues and Findings

The team did not identify any findings.

4 OTHER ACTIVITIES

4OA5 Management Meetings

.1 Exit Meeting Summary

The team leader presented preliminary inspection results to Mr. D. Oatley, Vice President and Plant Manager, and other licensee management and staff in an exit meeting on April 7, 2000, which was held at Diablo Canyon Nuclear Power Plant. Licensee representatives voiced no comments or concerns.

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

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

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D. Christensen, Engineer, Nuclear Services and Licensing
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L. Fusco, Supervisor, Fire Protection Engineering/Maintenance Rule Program
D. Gouveia, Supervisor, Safety and Fire Protection
D. Hampshire, Fire Protection Engineer, Engineering Services
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S. Laforce, Engineer, Engineering Services
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D. Powell, Fire Protection System Engineer, Engineering Services
R. Thierry, Director, Engineering

NRC

D. Acker, Resident Inspector
D. Powers, Acting Branch Chief, Engineering and Maintenance Branch
D. Proulx, Senior Resident Inspector

LIST OF DOCUMENTS REVIEWED

PROCEDURES

| <u>NUMBER</u> | <u>DESCRIPTION</u> | <u>REVISION</u> |
|---------------|---|-----------------|
| AR PK05-01 | RCP NO. 11 | 23 |
| AR PK05-05 | RCP Vibration | 11B |
| CP M-6 | Fire (Pre-Fire Plans) | 1 |
| CP M-10 | Fire Protection of Safe Shutdown Equipment | 14 |
| OP AP-8A | Control Room Inaccessibility - Establishing Hot Standby | 10 |
| OP AP-8B | Control Room Inaccessibility - Hot Standby to Cold Shutdown | 9 |
| OP AP-10 | Loss of Auxiliary Salt Water | 6A |
| OP AP-11 | Malfunction of Component Cooling Water System | 16 |
| OP B-2:V | RHR - Place In Service During Plant Cooldown | 17 |

| <u>NUMBER</u> | <u>DESCRIPTION</u> | <u>REVISION</u> |
|---------------|---|-----------------|
| STP M-15A | Containment Inspection Prior to Establishing Unit Containment Integrity | 9 |

CALCULATIONS

| <u>NUMBER</u> | <u>TITLE</u> | <u>REVISION</u> |
|---------------|---|-----------------|
| 114-DC | Protection Relays Setting for 4.16kV Class 1E Buses and Feeders | 7 |
| 134-DC | Electrical Appendix R Analysis | 4 |
| 170-DC | Overcurrent Relay Setting for Class 1E 4KV Motors | 12 |
| 202-DC | System Coordination Study for Class 1E 480V Buses | 1 |
| 335-DC | 10 CFR 50, Appendix R Emergency Lighting and Communications | 4 |
| J-042 | Motor Operated Rotary Valve and Damper Torque Requirements and Capability | 8 |
| M-680 | 10 CFR 50, Appendix R Safe Shutdown Equipment | 12 |
| M-911 | Evaluation of Safe-Shutdown Equipment Operability during Loss of HVAC | 1 |
| M-912 | HVAC Interactions for Postfire Safe Shutdown/Room Heat-up Due to Loss of HVAC As a Result of Fire | 1 |
| M-928 | 10 CFR 50, Appendix R Safe Shutdown Analysis | 9 |
| PRA98-03 | ASW Screen Plugging Risk Significance | 0 |
| V-07 | Motor Operated Valve Sizing and Switch Setting Calculations | 0 |

DRAWINGS

| <u>NUMBER</u> | <u>DESCRIPTION</u> | <u>REVISION</u> |
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| 065126 | Fire Protection Information | 12 |
| 102032 | LOOP Block Diagram for HCV-123 | 147 |
| 109816 | Cond. Stor. Tk. LT-40 | 2 |
| 109808 | Chrg. Hdr. Flow Control FCV-128 | 3 |
| 437518 | Single Line Diagram for Station Auxiliaries | 31 |

| <u>NUMBER</u> | <u>DESCRIPTION</u> | <u>REVISION</u> |
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| 437519 | Single Line Diagram 12/4.16kV System | 19 |
| 37533 | Single Line Meter & Relay Diagram 4160 Volt System | 33 |
| 437542 | Single Line Meter and Relay Diagram 480 Volt System Bus Section 1G | 43 |
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| 437546 | Single Line Meter and Relay Diagram 125 Volt dc System | 36 |
| 437547 | Single Line Meter and Relay Diagram 120 Volt Instrument ac System | 36 |
| 437579 | 4kV Diesel Generator Control No. 11 & 12 | 32 |
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| 061881 | Ventilation As-Built Details for Fire Dampers, Sheet 20 | 12 |
| 061881 | Ventilation As-Built Details for Fire Dampers, Sheets 20A, 20B, 20C, and 20D | 8 |
| 437583 | Auxiliary Feedwater Pumps | 23 |
| 437584 | Auxiliary Feedwater Pump Turbine Control | 19 |

ACTION REQUESTS

| <u>NUMBER</u> | <u>DESCRIPTION</u> | <u>DATE</u> |
|---------------|---|---------------|
| A0414724 | MOV Overtorque Evaluation for Hot Shorts | June 30, 1998 |
| A0505797 | Unit 1 Aux Bldg Ladder Storage Station A6 Blocks BOL-100R | April 6, 2000 |
| A05050857 | Fire Dampers 0-FD-32 and 33 not UL listed | April 6, 2000 |
| A0505861 | Exposed Cable Identified in Fire Area 4A | April 6, 2000 |
| A0505892 | Exposed Cables Above Fire-Rated Ceiling in Chem Lab | April 6, 2000 |

MISCELLANEOUS DOCUMENTS

| <u>NUMBER</u> | <u>TITLE</u> | <u>REVISION/DATE</u> |
|---------------------|--|----------------------|
| | Individual Plant Examination of External Events Report for Diablo Canyon Power Plant Units 1 and 2 in Response to Generic Letter 88-20, Supplement 4 | June 1994 |
| FHARE 20 | Bus Duct Penetrations | Revision 2 |
| DCM NO. S-8 | Chemical and Volume Control System | Revision 24 |
| SSER 23 | Supplement No. 23 to Safety Evaluation Report - Diablo Canyon Nuclear Power Station, Units 1 and 2 | July 2, 1984 |
| SSER 31 | Supplement No. 31 to Safety Evaluation Report - Diablo Canyon Nuclear Power Station, Units 1 and 2 | May 2, 1985 |
| PGE Document 216969 | Lack of Circuit Analysis for Ventilation Equipment | February 7, 1994 |
| PGE-93-516 | Westinghouse letter; Subject: Appendix R Safety Evaluation, RCP Seal and Motor Integrity | January 19, 1993 |
| | PG&E Letter; Subject: 10 CFR 50, Appendix R Safe Shutdown Analysis, Supporting Documentation | October 12, 1993 |
| DC1-EE-47195 | Design Change: Replacing Valve Actuators Including Changing FCV-436 & FCV-437 to Manual Operators | 0 |
| R0174174 | Work Order M 70B Inspection and Testing of Fire Dampers | |
| 69-11831-1 | Containment Round Sheet for Unit 1 | January 12, 2000 |

ATTACHMENT 2

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection Findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN Findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE Findings indicate issues that are of low to moderate safety significance. YELLOW Findings are issues that are of substantial safety significance. RED Findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner, which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance

(as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.