



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

April 29, 2010

John T. Conway  
Senior Vice President and  
Chief Nuclear Officer  
Pacific Gas and Electric Company  
77 Beale Street, B32  
San Francisco, CA 94105

Subject: DIABLO CANYON POWER PLANT - NRC INTEGRATED INSPECTION  
REPORT 05000275/2010002 AND 05000323/2010002

Dear Mr. Conway:

On March 27, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Diablo Canyon Power Plant. The enclosed integrated inspection report documents the inspection findings, which were discussed on March 31, 2010, with Mr. James Becker, Site Vice President and other members of your staff.

The inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents two NRC-identified findings of very low safety significance (Green) and three Severity Level IV violations. All of these findings were determined to involve violations of NRC requirements. Additionally, one licensee-identified violation, which was determined to be of very low safety significance, is listed in this report. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as noncited violations, consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the violations or the significance of the noncited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 612 E. Lamar Blvd, Suite 400, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Diablo Canyon Power Plant. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV, and the NRC Resident Inspector at the Diablo Canyon Power Plant. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Geoffrey B. Miller, Chief  
Project Branch B  
Division of Reactor Projects

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

Enclosure:

NRC Inspection Report 05000/275/2010002 and 0500323/2010002  
w/Attachment: Supplemental Information

cc w/Enclosure:

Sierra Club San Lucia Chapter  
ATTN: Andrew Christie  
P.O. Box 15755  
San Luis Obispo, CA 93406

Jane Swanson  
San Luis Obispo  
Mothers for Peace  
P.O. Box 3608  
San Luis Obispo, CA 93403

Chairman  
San Luis Obispo County  
Board of Supervisors  
1055 Monterey Street, Suite D430  
San Luis Obispo, CA 93408

Truman Burns\Robert Kinosian  
California Public Utilities Commission

505 Van Ness Ave., Rm. 4102  
San Francisco, CA 94102

Diablo Canyon Independent Safety Committee  
Attn: Robert R. Wellington, Esq.  
Legal Counsel  
857 Cass Street, Suite D  
Monterey, CA 93940

Director, Radiological Health Branch  
State Department of Health Services  
P.O. Box 997414 (MS 7610)  
Sacramento, CA 95899-7414

City Editor  
The Tribune  
3825 South Higuera Street  
P.O. Box 112  
San Luis Obispo, CA 93406-0112

James D. Boyd, Commissioner  
California Energy Commission  
1516 Ninth Street (MS 31)  
Sacramento, CA 95814

James R. Becker, Site Vice President  
Diablo Canyon Power Plant  
P.O. Box 56  
Avila Beach, CA 93424

Jennifer Tang  
Field Representative  
United States Senator Barbara Boxer  
1700 Montgomery Street, Suite 240  
San Francisco, CA 94111

Chief, Radiological Emergency Preparedness Section  
National Preparedness Directorate  
Technological Hazards Division  
Department of Homeland Security  
1111 Broadway, Suite 1200  
Oakland, CA 94607-4052

Chief, Radiological Emergency Preparedness Section  
Chemical and Nuclear Preparedness and  
Protection Division  
Department of Homeland Security  
1111 Broadway, Suite 1200  
Oakland, CA 94607-4052

## Electronic distribution by RIV:

Regional Administrator (Elmo.Collins@nrc.gov)  
 DRP Director (Dwight.Chamberlain@nrc.gov)  
 DRP Deputy Director (Anton.Vegel@nrc.gov)  
 DRS Director (Roy.Caniano@nrc.gov)  
 DRS Deputy Director (Troy.Pruett@nrc.gov)  
 Senior Resident Inspector (Michael.Peck@nrc.gov)  
 Resident Inspector (Tony.Brown@nrc.gov)  
 Branch Chief, DRP/B (Geoffrey.Miller@nrc.gov)  
 Senior Project Engineer, DRP/B (Rick.Deese@nrc.gov)  
 DC Site Secretary (Agnes.Chan@nrc.gov)  
 Public Affairs Officer (Victor.Dricks@nrc.gov)  
 Public Affairs Officer (Lara.Uselding@nrc.gov)  
 Branch Chief, DRS/TSB (Michael.Hay@nrc.gov)  
 RITS Coordinator (Marisa.Herrera@nrc.gov)  
 DRS/TSB STA (Dale.Powers@nrc.gov)  
 OEDO RIV Coordinator (Leigh.Trocine@nrc.gov)  
 ROPreports  
 W. A. Maier, RSLO (Bill.Maier@nrc.gov)  
 R. E. Kahler, NSIR (Robert.Kahler@nrc.gov)  
 NSIR/DPR/EP (Eric.Schrader@nrc.gov)

File located: R:\\_REACTORS\\_DC\2010\DC2010-02RP-msp.doc

SUNSI Rev Compl.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ADAMS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Reviewer Initials	GM
Publicly Avail	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sens. Type Initials	GM
RIV:RI:DRP/B	SRI:DRP/B	C:DRS/OB	C:DRS/PSB1	C:DRS/PSB2	
MABrown	MSPeck	MHaire	MPShannon	GWerner	
<b>/GMiller for/</b>	<b>/RA by Email/</b>	<b>/RA/</b>	<b>/PFrechette for/</b>	<b>/RA/</b>	
<b>4/28/10</b>	<b>4/26/10</b>	<b>4/20/10</b>	<b>4/26/10</b>	<b>4/23/10</b>	
C:DRS/EB1	C:DRS/EB2	C:/DRS/TSB	C:/DRP/B		
TFarnholtz	NO'Keefe	MHay	GBMiller		
<b>/RLatta for/</b>	<b>/GPick for/</b>	<b>/DPowers for/</b>	<b>/RA/</b>		
<b>4/22/10</b>	<b>4/22/10</b>	<b>4/23/10</b>	<b>4/29/10</b>		

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000275, 05000323

License: DPR-80, DPR-82

Report: 05000275/2010002  
05000323/2010002

Licensee: Pacific Gas and Electric Company

Facility: Diablo Canyon Power Plant, Units 1 and 2

Location: 7 ½ miles NW of Avila Beach  
Avila Beach, California

Dates: January 1 through March 27, 2010

Inspectors: M. Peck, Senior Resident Inspector  
M. Brown, Resident Inspector  
G. Guerra, CHP, Emergency Preparedness Inspector

Approved By: G. B. Miller, Chief, Project Branch B  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000275/2010002, 05000323/2010002; 1/1/2010 – 3/27/2010; Diablo Canyon Power Plant, Integrated Resident and Regional Report; Equipment Alignments; Identification and Resolution of Problems; Event Follow-up.

The report covered a 3-month period of inspection by resident inspectors and an announced baseline inspection by a regional based inspector. Two Green noncited violations of significance and three Severity Level IV noncited violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### A. NRC-Identified Findings and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," after Pacific Gas and Electric personnel failed to effectively implement the Seismically Induced System Interaction Program. The Seismic Interaction Program is part of the design basis mitigation strategy for a potential 7.5 magnitude Hosgri earthquake and is required by Procedure AD4.ID3, "SISIP Housekeeping Activities." The inspectors identified three examples of transient equipment and materials improperly staged in seismically induced system interaction target areas. Pacific Gas and Electric had not analyzed the transient equipment to assess the risk to safety related components as required by plant procedures. Pacific Gas and Electric entered this finding into the corrective action program as Notification 50299740.

The finding is more than minor because the failure to follow the Seismically Induced System Interaction Program is associated with the Mitigating Systems Cornerstone external events protection attribute and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors concluded that the finding had very low safety significance because none of the examples of improperly staged equipment resulted in an actual loss of a system safety function or equipment required by technical specifications, or involve the loss or degradation of equipment specifically designed to mitigate a seismic, flooding, or severe weather initiating event, and did not involve the total loss of any safety function that contributes to an external event initiated core damage accident sequence. The inspectors concluded this finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee's past actions to address Seismically Induced System Interaction Program deficiencies were not effective [P.1.(d)]. (Section 1R04)

- Severity Level IV. The inspectors identified a noncited violation of 10 CFR 50.71 after Pacific Gas and Electric failed to update the Final Safety Analysis Report Update with the current design basis. The inspectors identified that the current Final Safety Analysis Report Update, Revision 18, Sections 3.1, 6.4, 6.5, and 9.4 did not capture the current design basis for the control room, component cooling water, and auxiliary feedwater systems. The failure of the licensee to provide current design basis information in the Final Safety Analysis Report Update had an adverse impact on the plant modification process, the licensee's ability to assess operability for degraded plant systems, and the NRC's ability to ensure that regulatory requirements were met. The licensee entered this violation into the corrective action program as Notifications 50308588, 50306131, 5030799, and 50307476.

The inspectors evaluated this violation using the traditional enforcement process because the issue affected the NRC's ability to perform its regulatory function. The inspectors concluded that the violation is more than minor because the incorrect Final Safety Analysis Report Update information had a potential impact on safety and licensed activities. The inspectors concluded the violation is Severity Level IV because the erroneous information was not used to make an unacceptable change to the facility or procedures that would have resulted in greater than very low safety significance under the Significance Determination Process. Because the violation included a performance deficiency, the inspectors also concluded the issue was a finding under the Reactor Oversight Process. The finding had a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not adequately evaluate the extent of condition of previous similar violation and take appropriate corrective actions [P.1(c)]. (Section 1R04)

- Severity Level IV. The inspectors identified a noncited violation of 10 CFR 50.73(a)(1) after Pacific Gas and Electric failed to submit a required licensee event report within 60 days after discovering a condition that could have prevented the fulfillment of a safety function. On November 22, 2005, the licensee determined that plant operators may not have had the capability to align either residual heat removal train to the cold leg recirculation mode of emergency core cooling following certain small break loss of coolant accidents. Plant engineers determined that the residual heat removal containment sump suction valve operators were inadequately sized to open against the differential pressure generated by the pumps operating in recirculation for an extended period. Plant engineers identified this condition during a follow up of industry operating experience. The licensee initially concluded that the condition was not reportable because the operating experience was not applicable to Diablo Canyon. The licensee failed to re-screen the issue for reportability after determining that the plant was susceptible to the condition. The licensee entered this issue into the corrective action program as Notifications 50301839 and 50295784.

The inspectors evaluated this finding using the traditional enforcement process because the failure to submit a required event report affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section IV.A.3 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy, the inspectors concluded the violation was a Severity Level IV because the licensee

failed to submit a required licensee event report. The inspectors did not assign a crosscutting aspect because the performance deficiency represented a latent issue. (Section 40A2)

- Green. The inspectors identified a noncited violation of 10 CFR, Part 50, Appendix B, Criteria XVI, "Corrective Actions," after Pacific Gas and Electric failed to implement adequate corrective actions following a protection system failure. On June 29, 2009, a protection system card failure resulted in the inoperability of both motor-driven auxiliary feedwater trains. The licensee concluded that the failure of the auxiliary feedwater trains were expected as part of the protection system design and limited corrective actions to replacing the failed card. The inspectors concluded that the protection system design did not meet the design basis, which required that no single active failure would prevent the auxiliary feedwater system from meeting the safety function. The licensee entered this issue into the corrective action program as Notifications 50251823, 50298491 and 50254412.

The inspectors concluded that the finding is greater than minor because the vulnerability of auxiliary feedwater to a single failure is associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding to have very low safety significance because the condition did not represent a loss of system safety function. While the single failure of the protection system card resulted in the inoperability of both motor-driven auxiliary feedwater trains, the turbine-driven auxiliary feedwater train was available to perform the safety function. This finding has a crosscutting aspect in the area of problem identification and resolution, associated with the corrective action program component because the licensee failed to perform an adequate evaluation of the auxiliary feedwater failure such that the resolutions address causes and extent of conditions, as necessary [P.1(c)]. (Section 40A3)

- Severity Level IV. The inspectors identified a noncited violation of 10 CFR 50.73(a)(1) after Pacific Gas and Electric failed to submit a required licensee event report within 60 days after discovery of a common-cause failure of three control room radiation monitors. The inspectors concluded that monitors failed on October 13, 2009 as a result of water intrusion due to heavy rains. The inspectors concluded that common cause failure of the radiation monitors was reportable under 10 CFR 50.73(a)(2)(vii). Pacific Gas and Electric subsequently reported the event on February 17, 2010, as Licensee Event Report 2010-001-00, Control Room Ventilation Pressurization Due to Radiation Detector Failures. The licensee entered this issue into the corrective action program as Notification 50301839.

The inspectors evaluated this finding using the traditional enforcement process because the failure to submit a required event report affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section IV.A.3 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy, the inspectors concluded that this was a Severity Level IV noncited violation because the licensee failed to submit a required licensee event report. Because the violation included a performance deficiency, the inspectors also concluded the



issue was a finding under the Reactor Oversight Process. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate the failure of the radiation monitor failures to ensure NRC reportability requirements were met [P.1(c)]. (Section 40A3)

**B. Licensee-Identified Violations**

Violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 40A7.

## REPORT DETAILS

### Summary of Plant Status

At the beginning of the inspection period, Diablo Canyon Units 1 and 2 were operating at full power. On January 19, 2010, plant operators reduced both units to 25 percent power after a winter storm generated ocean debris that challenged the condenser circulating water inlet. On January 23, 2010, the licensee restored both units to full power. Both units remained at full power throughout the rest of the inspection period.

### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

#### 1R01 Adverse Weather Protection (71111.01)

##### .1 Readiness for Seasonal Extreme Weather Conditions

###### a. Inspection Scope

The inspectors performed a review of the licensee's adverse weather procedures for seasonal extremes of high wind. The inspectors verified that weather-related equipment deficiencies identified during the previous year were corrected prior to the onset of seasonal extremes and evaluated the implementation of the adverse weather preparation procedures and compensatory measures for the affected conditions during adverse weather conditions.

During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Final Safety Analysis Report Update and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant-specific procedures. Specific documents reviewed during this inspection are listed in the attachment. The inspectors also reviewed corrective action program items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into the corrective action program in accordance with station corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- 230 kV offsite AC power
- 500 kV offsite AC Power

These activities constitute completion of two readiness for seasonal adverse weather samples as defined in Inspection Procedure 71111.01-05.

###### b. Findings

No findings of significance were identified.

.2 Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

On January 13, 2010, a Pacific winter storm and high ocean swell weather advisory was issued for the central California coast. The inspectors observed the licensee's preparations and planning for the significant winter storm potential. The inspectors reviewed licensee procedures and discussed potential compensatory measures with control room personnel. The inspectors focused on plant management's actions for implementing the station's procedures for ensuring adequate personnel for safe plant operation and emergency response would be available. The inspectors conducted a site walkdown including walkdowns of various plant structures and systems to check for maintenance or other apparent deficiencies that could affect system operations during the predicted significant weather. The inspectors also reviewed corrective action program items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into the corrective action program in accordance with the corrective action procedures. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one readiness for impending adverse weather condition sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

**1R04 Equipment Alignments (71111.04)**

.1 Partial Equipment Walk-downs

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk significant systems:

- Unit 2, residual heat removal, Train A, February 2, 2010
- Unit 1 and Unit 2, long-term cooling water system, February 3, 2010
- Unit 1, control room ventilation, March 29, 2010

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could affect the function of the system; and therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Final Safety Analysis Report Update, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the

components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three partial system walkdown samples as defined by Inspection Procedure 71111.04-05.

b. Findings

Failure to Effectively Implement the Seismically-Induced Systems Interaction Program

Introduction. The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," after Pacific Gas and Electric personnel failed to properly implement the Seismically Induced System Interaction Program (SISIP) as required by Procedure AD4.ID3, "SISIP Housekeeping Activities," Revision 7. The inspectors identified three program target areas where the licensee improperly staged transient materials in the vicinity of equipment required to properly function during and following an earthquake.

Description. On February 5, 2010, the inspectors identified improperly stored transient equipment in three Seismically Induced System Interaction Program target areas. The Seismically Induced System Interaction Program administratively restricts non-seismic qualified equipment and materials from plant areas that could adversely affect equipment needed for safe shutdown following an earthquake. The program was developed as part of the Pacific Gas and Electric mitigation strategies for a potential 7.5 magnitude Hosgri earthquake and is required as part of the plant design basis to protect against natural phenomena. The inspectors identified cleaning equipment, a portable battery charger, a metal folding chair and other materials in both the Unit 1 and Unit 2 long-term cooling water system portable diesel-driven pump rooms. On February 18, 2010, the inspectors identified a metal folding chair stored behind the Unit 1 125VDC vital battery Charger 1-1. In all three examples, plant personnel had not secured the transient equipment or evaluated the equipment in accordance with Section 5.1.3 of Procedure AD4.ID3, "SISIP Housekeeping Activities." The inspectors notified plant operators of the problem. Plant operations personnel subsequently corrected the issues but failed to enter the issues into the corrective action program as required by Section 5.6 of Procedure AD4.ID3 and Step 5.1.1 of Procedure OM7.ID1, "Problem Identification and Resolution". In 2008, the NRC previously identified a programmatic weakness to implement the Seismically Induced System Interaction Program during the Biennial Problem Identification and Resolution inspection, as discussed in Inspection Report 05000275;323/2008008.

Analysis. The failure of plant personnel to properly control equipment and materials within Seismically Induced System Interaction Program target areas or to enter the conditions into the corrective action program was a performance deficiency. The finding is more than minor because it is associated with the Mitigating Systems Cornerstone external events protection attribute and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was also similar to Inspection Manual Chapter 0612, "Power Reactor Inspection Reports" Appendix E, Example 3.j,

because the failures were indicative of a programmatic deficiency in the licensee's Seismically Induced System Interaction Program that could lead to more significant errors if uncorrected. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors concluded that the finding had very low safety significance because it did not result in an actual loss of a system safety function, did not result in a loss of a single train of safety equipment for greater than its technical specification allowed outage time, did not involve the loss or degradation of equipment specifically designed to mitigate a seismic, flooding, or severe weather initiating event, and did not involve the total loss of any safety function that contributes to an external event initiated core damage accident sequence. The inspectors also concluded that this finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to implement effectively corrective action to address previous programmatic deficiencies identified by the NRC in 2008 [P.1.(d)].

Enforcement. Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," required that activities affecting quality be prescribed by procedures of a type appropriate to the circumstances and shall be accomplished in accordance with these procedures. Procedure AD4.ID3, "SISIP Housekeeping Activities," Section 5.1.3, required that transient equipment located near seismically induced system interaction targets be secured, set back, or evaluated. Contrary to the above, on February 5, 2010 and February 18, 2010, the inspectors identified transient equipment located near seismically induced system interaction targets that were not secured, set back, or evaluated. Because this finding was of very low safety significance and was entered into the licensee's corrective action program as Notification 50299740, this violation is being treated as a noncited violation, in accordance with Section VI.A of the Enforcement Policy: NCV 05000275; 05000323/2010002-01; "Failure to Effectively Implement the Seismically-Induced Systems Interaction Program."

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

On March 21, 2010, the inspectors performed a complete system alignment inspection of the component cooling water system to verify the functional capability of the system. The inspectors selected this system because it was considered both safety-significant and risk-significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, as appropriate, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that ancillary equipment or debris did not interfere with equipment operation. The inspectors reviewed a sample of past and outstanding work orders to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the corrective action program database to ensure that system equipment-alignment problems were being identified and appropriately resolved. Specific documents reviewed during this inspection are listed in the attachment

These activities constitute completion of one complete system walkdown sample as defined by Inspection Procedure 71111.04-05.

b. Findings

Failure to Update the Final Safety Analysis Report with the Current Plant Design Bases

Introduction. The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.71 after Pacific Gas and Electric failed to include the current plant design bases in the Final Safety Analysis Report Update.

Description. The inspectors identified three examples of the failure of Pacific Gas and Electric to update the current design bases in the Final Safety Analysis Report Update which could have an adverse impact on the plant modification process, the licensee's ability to assess operability for degraded plant systems, and the NRC's ability to ensure that regulatory requirements were met.

In the first example, the inspectors identified that Final Safety Analysis Report Update described design basis for the control room was inadequate. Section 3.1.4.1, Criterion 11 - Control Room (Category B), stated that the design basis for the control room was 1967 General Design Criterion 11. The inspectors concluded that the statement was incorrect.

Pacific Gas and Electric originally described Criterion 11 (1967) as the control room design basis in the 1968 construction permit application. During the initial plant licensing review, the NRC stated that original control room design, based on Criterion 11 (1967), was not acceptable to support plant licensing. Pacific Gas and Electric implemented major design changes to bring the control room into compliance with Criterion 19 (1971). For example, the licensee added a pressurization system, 2,100 cubic foot per minute recirculation charcoal filters, concrete shielding, and performed detailed dose calculations to demonstrate that operator dose would not exceed 5 Rem total effective dose equivalent. Pacific Gas and Electric provided to the NRC a description detailing how the control room design met Criterion 19 (1971) (Letter to F.J. Miraglia, Division of Licensing, US NRC, from P. A. Crane, Pacific Gas and Electric, CHRON 131464, Description of PG&E's compliance with the requirements 10 CFR 50, September 10, 1981):

*"The Diablo Canyon Unit 1 and 2 design conform with Criterion 19 (1971 GDC). A centralized control room common to both units contains the controls and instrumentation necessary for operation of both units under normal and accident conditions, including loss of coolant accidents. Adequate radiation protection is provided to assure that control room personnel are not subject to radiation exposures in excess of 10 CFR 20 limits for normal operation and 5 Rem under accident conditions. Provision are made to that plant operators can readily maintain the plant at hot shutdown conditions from a location onsite the control room. The control room ventilation system consists of a usual system providing a large percentage of recirculation air. In the event of fire in the control room, provisions are made for 100 percent outside air makeup operation. In the event of airborne radioactivity or chlorine outside the control room, provision are made for operation with 100 percent recirculated air, with 20 percent passing through HEPA filters and charcoal banks. If long term occupancy is required under conditions of outside airborne activity, provisions are made for operation with 80 percent recirculate air and 20 percent outside air makeup through HEPA and*

*charcoal filters. Electric power for control room ventilation is provided from the on-site emergency source.”*

The licensee’s letter also described how the Final Safety Analysis Report demonstrated station conformance with Criterion 19 (Sections 6.4, 7.7, 9.4, 11.0, 12.1, and 15.4). In addition, the original Final Safety Analysis Report, Section 6.4.1.2, “Design Bases,” stated that the design basis for the control room included Criterion 19 (1971) and Criterion 3, “Fire Protection (1971).”

The inspectors concluded that the Final Safety Analysis Report Update did not adequately capture the control room design basis and testing requirements as described above.

The second example of inadequate design basis information in the Final Safety Analysis Report Update was related to the component cooling water system. Section 3.1, “Conformance with AEC General Design Criteria,” of the Final Safety Analysis Report Update did not include the component cooling water system.

Similar to the control room, the original component cooling water system design described in the Construction Permit did not meet NRC acceptance criteria for licensing. Pacific Gas and Electric performed design changes during plant construction to bring the system into conformance with General Design Criterion 44 (1971) prior to licensing. These design changes included seismic qualification of the non-safety related cooling loop and operator compensatory actions for current passive single failure criteria. The original Final Safety Analysis Report, Section 9.2.2, “Component Cooling Water System,” stated:

*“The CCW system components that are considered vital are redundant. In accordance with the NRC’s General Design Criterion (GDC) 44(1971), the CCW system is designed to provide sufficient heat removal for normal and post accident ESF heat loads without overheating.”*

By letter (F.J. Miraglia, September 10, 1981), Pacific Gas and Electric stated that the Diablo Canyon Unit 1 and 2 designs conform with 1971 General Design Criterion 2 (Design Bases for Protection Against Natural Phenomena), Criterion 4 (Environmental and Dynamic Effects Design Bases), Criterion 44 (Cooling Water), Criterion 45 (Inspection of Cooling Water System) and Criterion 46 (Testing of Cooling Water System). The NRC bases of acceptance of the component cooling water system included the General Design Criteria 2, 4, 44, 45 and 46 as stated in Supplemental Safety Evaluation Report 16, Section 1.1 (2), “CCWS Design Compliance with Applicable NRC Regulations.”

The inspectors concluded that the Final Safety Analysis Report Update did not adequately capture the above described aspects of the component cooling water design basis.

The third example of inadequate design basis information in the Final Safety Analysis Report Update was related to the auxiliary feedwater system. Section 3.1, “Conformance with AEC General Design Criteria,” of the Final Safety Analysis Report Update did not include the design basis for auxiliary feedwater. By letter (F.J. Miraglia, September 10, 1981), Pacific Gas and Electric stated that the Diablo Canyon Units 1

and 2 designs conform with 1971 General Design Criterion 13 (Instrumentation and Control) and Criterion 20 (Protection System Functions).

The inspectors concluded that the current Final Safety Analysis Report Update, Section 6.5, "Auxiliary Feedwater," did not adequately capture the system design basis. By letter (June 26, 1980) the NRC advised Pacific Gas and Electric that NUREG 0660, Items II.E.1.1, "Auxiliary Feedwater System Reliability Evaluation, and II.E.1.2, Auxiliary Feedwater Initiation and Indication," was required to be addressed prior to plant licensing. These two new licensing conditions required the Diablo Canyon auxiliary feedwater system be reviewed against regulatory requirements established in NUREG 800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants;" assess the relative reliability of the various auxiliary feedwater under various loss of feedwater transients; and replace certain non-safety grade components with safety grade components. The basis of NRC acceptance, as documented in Supplemental Safety Evaluation Report 10, was that auxiliary feedwater met General Design Criterion 20 (1971) with respect to timely initiation and Criterion 13 with respect to control room indication. An auxiliary feedwater reliability study provided by the licensee on October 9, 1980, demonstrated that a single failure concurrent with the loss of offsite power would not prevent the system safety function. Supplemental Safety Evaluation Report 18 stated that based on the auxiliary feedwater reliability study provided by the licensee, the system was also acceptable because a single failure concurrent with the loss of offsite power would not prevent the system safety function.

The inspectors concluded that the Final Safety Analysis Report Update did not adequately capture the auxiliary feedwater design basis as described above.

The inspectors determined that the licensee's less than adequate evaluation of a previous problem was the most significant contributor to this violation. The inspectors previously identified NCV 05000275;323/2009003-03, "Failure to Update the Final Safety Analysis Report Update with Current Plant Design Criteria," in June 2009. This previous issue was also related to examples where the licensee had failed to properly update the plant design basis in the Final Safety Analysis Report Update. The licensee did not perform an adequate extent of condition evaluation of this previous issue in the corrective action program.

Analysis. The failure of Pacific Gas and Electric to maintain the current plant design basis in the Final Safety Analysis Report Update was a performance deficiency. Because the issue affected the NRC's ability to perform its regulatory function, the inspectors evaluated this violation using the traditional enforcement process. The inspectors used the General Statement of Policy and Procedure for NRC Enforcement Actions, Supplement I - Reactor Operations, dated January 14, 2005 to evaluate the significance of this violation. The inspectors concluded that the violation is more than minor because the incorrect Final Safety Analysis Report Update information had a potential impact on safety and licensed activities. The inspectors classified the violation as Severity Level IV because the erroneous information was not used to make an unacceptable change to the facility or procedures that would have resulted in greater than very low safety significance under the Significance Determination Process. Because the violation included a performance deficiency, the inspectors also concluded the issue was a finding under the Reactor Oversight Process and had a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee did not adequately evaluate the extent



of condition and take appropriate corrective actions after the NRC identified a similar violation [P.1(c)].

Enforcement. Title 10 of the Code of Federal Regulations 50.71(e) required Pacific Gas and Electric to periodically update the final safety analysis report originally submitted as part of the application for the license, to assure that the information included in the report contains the latest information developed. This submittal was required to include the effects of all changes made in the facility safety analyses and evaluations performed by the licensee in support of approved license amendments. Contrary to the above, prior to March 27, 2010, Pacific Gas and Electric failed to update the Final Safety Analysis Report to include the effects of all changes made in the facility safety analyses and evaluations performed by the licensee in support of approved license amendments. Specifically, the licensee failed to update the Final Safety Analysis Report Update design basis information for the control room, component cooling water and auxiliary feedwater systems. Because this finding is of very low safety significance and was entered into the corrective action program as Notifications 50308588, 50306131, 5030799, and 50307476, this violation is being treated as a noncited violation in accordance with Section VI.A.1 of the Enforcement Policy: NCV 05000275;05000323/2010002-02, "Failure to Update the Final Safety Analysis Report with the Current Plant Design Bases."

## **1R05 Fire Protection (71111.05)**

### **.1 Quarterly Fire Inspection Tours**

#### **a. Inspection Scope**

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Area 19-A, main turbine building, January 31, 2010
- Fire Areas 7-A and 7-B, Unit 1 and Unit 2 cable spreading rooms, February 9, 2010
- Fire Areas 5-A-1, 5-A-2, 5-A-3, 5-A-4, 5-B-1, 5-B-2, 5-B-3, and 5-B-4, Unit 1 and Unit 2 vital 480V bus rooms, February 11, 2010
- Fire Areas 6-A-1, 6-A-2, 6-A-3, 6-A-4, 6-A-5, 6-B-1, 6-B-2, 6-B-3, 6-B-4, 6-B-5, Unit 1 and Unit 2 vital battery and battery charger rooms, February 18, 2010

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems or features, in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the

documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four quarterly fire-protection inspection samples as defined by Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On March 18, 2010, the inspectors observed a fire brigade activation for a simulated fire in the turbine building. The observation evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies, openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were (1) proper wearing of turnout gear and self-contained breathing apparatus; (2) proper use and layout of fire hoses; (3) employment of appropriate fire fighting techniques; (4) sufficient firefighting equipment brought to the scene; (5) effectiveness of fire brigade leader communications, command, and control; (6) search for victims and propagation of the fire into other plant areas; (7) smoke removal operations; (8) utilization of preplanned strategies; (9) adherence to the preplanned drill scenario; and (10) drill objectives.

These activities constitute completion of one annual fire-protection inspection sample as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

**1R11 Licensed Operator Requalification Program (71111.11)**

a. Inspection Scope

On February 2, 2010, the inspectors observed a crew of licensed operators in the plant's simulator to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance
- Crew's clarity and formality of communications
- Crew's ability to take timely actions in the conservative direction

- Crew's prioritization, interpretation, and verification of annunciator alarms
- Crew's correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Oversight and direction from supervisors
- Crew's ability to identify and implement appropriate technical specification actions and emergency plan actions and notifications

The inspectors compared the crew's performance in these areas to pre-established operator action expectations and successful critical task completion requirements. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one quarterly licensed-operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

**1R12 Maintenance Effectiveness (71111.12)**

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- Unit 1 and Unit 2, reactor cavity sump level indication, January 19, 2010
- Unit 2, safety injection, March 2, 2010

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices
- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or (a)(2)

- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Technical Specification Tracking Sheet 1-TS-09-1081 and 0-TR-10-0001, Diesel Generator 1-2 out of service with high ocean swell event on January 13, 2010
- Technical Specification Tracking Sheet 0-TR-10-0002, severe storm, Units 1 and 2, January 19, 2010
- Quadrant power tilt surveillance with ex-core power range monitor out of service, Unit 1, Notification 50300368
- Removal of 230 kV Breaker 374, Notification 50293554 and Switch Yard Log 10-0051, on February 24, 2010
- Order 60024280, Units 1 and 2, risk assessment for temporary modification to raise the vital bus first level under voltage set point, on March 13, 2010

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a) (4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the

risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five maintenance risk assessments and emergent work control inspection samples as defined by Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

**1R15 Operability Evaluations (71111.15)**

a. Inspection Scope

The inspectors reviewed the following issues:

- Notification 50286743, inadequate stroke length for Unit 2 valves SI-2-8982A/B, January 25, 2010
- Notification 50299564, Auxiliary Saltwater Pump 2-1 inboard bearing vibrations in alert, February 17, 2010
- Removal of 115,000 volt shut capacitors from service, February 17, 2010
- Notification 50300991, improper degraded voltage timer settings, Units 1 and 2, February 25, 2010
- Notification 50293554, removal of 230 kV Breaker 374, February 24, 2010
- Notification 50305607, corrosion of control room air conditioner housing, March 22, 2010

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that technical specification operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the Technical Specifications and the Safety Analysis Report Update to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, in compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05

b. Findings

No findings of significance were identified.

**1R18 Plant Modifications (71111.18)**

Temporary Modification

a. Inspection Scope

To verify that the safety functions of important safety systems were not degraded, the inspectors reviewed the temporary modification identified as Unit 1 and 2 first level degraded voltage on March 12, 2010.

The inspectors reviewed the temporary modification and the associated safety-evaluation screening against the system design bases documentation, including the UFSAR and the technical specifications, and verified that the modification did not adversely affect the system operability/availability. The inspectors also verified that the installation and restoration were consistent with the modification documents and that configuration control was adequate. Additionally, the inspectors verified that the temporary modification was identified on control room drawings, appropriate tags were placed on the affected equipment, and licensee personnel evaluated the combined effects on mitigating systems and the integrity of radiological barriers.

These activities constitute completion of one sample of temporary plant modification as defined in Inspection Procedure 71111.18-05.

b. Findings

No findings of significance were identified.

**1R19 Postmaintenance Testing (71111.19)**

a. Inspection Scope

The inspectors reviewed the following postmaintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- Work Order 60023040, Emergency Diesel Generator 1-3 attempted start while running, January 24, 2010
- Work Order 640000763, Battery Charger 1-1 preventive maintenance, February 24, 2010
- Work Orders 60024241 and 60024245, Unit 1 4 kV bus first level undervoltage set point change, March 12, 2010

- Work Orders 60000535 and 60000536, preventive and corrective maintenance on Unit 2 control room pressurization fans, March 25, 2010
- Work Order 64016650-0150, corrective maintenance on the Unit 2 residual heat removal Exchanger 2-1 component cooling water return valve

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the following (as applicable):

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed
- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the Technical Specifications, the Final Safety Analysis Report Update, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five postmaintenance testing inspection samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings of significance were identified.

**1R22 Surveillance Testing (71111.22)**

a. Inspection Scope

The inspectors reviewed the Final Safety Analysis Report Update, procedure requirements, and technical specifications to ensure that the one surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment

- Procedures
- Jumper/lifted lead controls
- Test data
- Testing frequency and method demonstrated technical specification operability
- Test equipment removal
- Restoration of plant systems
- Fulfillment of ASME Code requirements
- Updating of performance indicator data
- Engineering evaluations, root causes, and bases for returning tested systems, structures, and components not meeting the test acceptance criteria were correct
- Reference setting data
- Annunciators and alarms setpoints

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- January 5, 2010, Unit 1, Emergency Diesel Generator 1-1
- February 18, 2010, Unit 1, Solid State Protection System Train A Actuation Logic Test
- March 1, 2010, Unit 1, reactor coolant leakage test
- March 21, 2010, Unit 2, routine surveillance of the containment fan coolers
- March 20, 2010, Unit 2, inservice inspection test of Auxiliary Saltwater Pump 2-1
- March 19, 2010, Unit 1, inservice inspection test of Auxiliary Feedwater Pump Discharge Valves LCV-115 and LCV-113
- March 20, 2010, Unit 2, routine surveillance of Atmospheric Dump valve PCV-19
- March 25, 2010, Unit 2, routine surveillance of the control room pressurization system

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of eight surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.



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

### a. Inspection Scope

The inspectors performed an in-office review of changes to the Diablo Canyon Power Plant Emergency Plan. A letter dated December 17, 2009 described changes to Section 5 and 8 which implemented the elimination of a supervisory position and assigning those responsibilities to the Manager, Emergency Planning. A letter dated January 7, 2010 described changes to Section 6, 7, and 8. These changes included editorial corrections, a better description of dose assessment methodologies, use of cellular telephones for field monitoring teams, the use of the term Radiation Work Permit, a description of new fire fighting equipment, and a description of what will be included in health physics drills.

These revisions were compared to the previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, to Nuclear Energy Institute Report 99-01, "Emergency Action Level Methodology," Revision 4, and to the standards in 10 CFR 50.47(b) to determine if the revision adequately implemented the requirements of 10 CFR 50.54(q). This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two samples as defined in Inspection Procedure 71114.04-05.

### b. Findings

No findings of significance were identified.

## **1EP6 Drill Evaluation (71114.06)**

### .1 Emergency Preparedness Drill Observation

#### a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on March 17, 2010, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the control room simulator and technical support center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

**4OA1 Performance Indicator Verification (71151)**

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the fourth Quarter 2009 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

.2 Unplanned Scrams per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams per 7000 Critical Hours performance indicator for Units 1 and 2 for the period from the first quarter 2008 through fourth quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC Inspection Reports for the period of January 1, 2009, through December 31, 2009, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified.

These activities constitute completion of two unplanned scrams per 7000 critical hour's samples as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.3 Unplanned Scrams with Complications

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Scrams with Complications performance indicator for Units 1 and 2 for the period from the first

quarter through fourth quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC Inspection reports for the period from the first quarter through fourth quarter 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified.

These activities constitute completion of two unplanned scrams with complications samples as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.4 Unplanned Power Changes per 7000 Critical Hours

a. Inspection Scope

The inspectors sampled licensee submittals for the Unplanned Power Changes per 7000 Critical Hours performance indicator for Units 1 and 2 for the period from the first quarter through fourth quarter 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports and NRC inspection reports for the period from January 1, 2009 to December 31, 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified.

These activities constitute completion of two unplanned power changes per 7000 critical hours samples as defined by Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

**40A2 Identification and Resolution of Problems (71152)**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's

corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included: the complete and accurate identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective actions. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Selected Issue Follow-up Inspection

a. Inspection Scope

During a review of items entered in the licensee's corrective action program, the inspectors recognized corrective action items documenting:

- Notification 50295519, Evaluate requirements to monitor wind speed for Emergency Plan entry conditions, January 26, 2010
- Notification 50295784, Industry operational experience related to potential failure of the containment sump valves due to high differential pressure, January 27, 2010

These activities constitute completion of two in-depth problem identification and resolution sample as defined in Inspection Procedure 71152-05.

c. Findings

Failure to Report a Condition that Could Have Prevented the Fulfillment of a Safety Function

Introduction. The inspectors identified a noncited Severity Level IV violation of 10 CFR 50.73(a)(1) after Pacific Gas and Electric failed to submit a licensee event report within 60 days following discovery of a condition that could have prevented the fulfillment of a safety function.

Discussion. Pacific Gas and Electric failed to report to the NRC a condition that could have prevented the fulfillment of the emergency core cooling system safety function. On November 22, 2005, the licensee determined that plant operators may not have had the capability to align either residual heat removal trains to the cold leg recirculation mode of emergency core cooling during certain small break loss of coolant accidents. Licensee engineers determined that the residual heat removal containment sump suction valve motor operators may not be adequately sized to open against all system differential pressures. Plant engineers identified this condition during the follow up of industry operating experience as documented in Action Request A0643107, "Evaluate Possible Concerns with Delta-P in SBLOCA." Pacific Gas and Electric personnel initially screened the condition as not reportable based on an engineering evaluation. Subsequent to the initial screening, plant engineers concluded that the sump valve motor operators were insufficiently sized. The licensee failed to reevaluate this new information for reportability. The inspectors concluded that the licensee's failure to thoroughly evaluate the problem to ensure that reportability requirements were met was the most significant contributor to the event. On March 17, 2010, the licensee concluded that the event was reportable.

Analysis. The failure of Pacific Gas and Electric to make a required NRC report was a performance deficiency. The inspectors evaluated this violation using the traditional enforcement process because the issue affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section IV.A.3 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy, the inspectors concluded this was a Severity Level IV noncited violation because the licensee failed to issue a required Licensee Event Report. The inspectors did not assign a crosscutting aspect because the performance deficiency represented a latent issue.

Enforcement. Title 10 of the Code of Federal Regulations 50.73(a)(1) required, in part, that the licensee submit a Licensee Event Report for any event of the type described in this paragraph within 60 days after the discovery of the event. Title 10 of the Code of Federal Regulations 50.73(a)(2)(v) required, in part, that the licensee report any event or condition that alone could have prevented the fulfillment of a safety function. Contrary to the above, the licensee failed to submit a required Licensee Event Report within 60 days after discovery of an event or condition that alone could have prevented the fulfillment of a safety function on November 22, 2005. This is a Severity Level IV noncited violation consistent with Section 7.10 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy. Because this finding is of very low safety significance and has been entered into the corrective action program as Notifications 50301839 and 50295784, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000275; 05000323/2010002-03, "Failure to Report a Condition that Could Have Prevented the Fulfillment of a Safety Function."

#### 40A3 Event Followup (71153)

.1 (Closed) Licensee Event Report 05000323/2009-002-01 Technical Specification 3.7.1 Violation Due to Cracked Valve Spring

On August 26, 2009, Unit 2 plant operators declared the main steam safety valve RV-224 inoperable in accordance with Technical Specification 3.7.1, "Main Steam Safety Valves" and reduced reactor power to approximately 80 percent power. The valve was declared inoperable due to a cracked spring. Plant operators took immediate corrective actions and gagged the main steam safety valves to preclude inappropriate opening during power operation. The licensee also inspected the other safety valves to ensure similar conditions did not exist. On September 17, 2009, the licensee received an exigent technical specification amendment to return Unit 2 to full power for the remainder of the operating cycle. The safety valve was subsequently repaired during the following refueling outage. The inspectors did not identify any violations of NRC requirements. This Licensee Event Report is closed.

b. Findings

No findings of significance were identified.

.2 (Closed) Licensee Event Report 05000275/2009-002-00: Two Trains of Auxiliary Feedwater Inoperable Due to Protection System Failure

On June 29, 2009, Pacific Gas and Electric declared both Unit 1 motor-driven auxiliary feedwater trains inoperable after a loop calculation processor card on the solid state protection system (Eagle 21) failed. This single active failure resulted in the loss of function of a level control valve on each motor-driven auxiliary feedwater pump trains. The licensee concluded that the auxiliary feedwater train failures were expected based on the solid state protection system design and no corrective actions, other than replacing the failed card, were required. The inspectors concluded that the protection system design did not meet the design basis, which included that no single active failure could prevent the auxiliary feedwater from meeting the safety function. The failure of the licensee to implement corrective actions for the design not meeting single failure criteria was a violation of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Actions." This Licensee Event Report is closed.

b. Findings

Less than Adequate Evaluation Following the Failure of both Motor Driven Auxiliary Feedwater Trains

Introduction. The inspectors identified a Green noncited violation of 10 CFR, Part 50, Appendix B, Criterion XVI, "Corrective Actions," after Pacific Gas and Electric failed to implement adequate corrective actions following a single solid state protection system failure that resulted in the inoperability of both motor driven auxiliary feedwater trains.

Description. On June 29, 2009, Pacific Gas and Electric declared both Unit 1 motor-driven auxiliary feedwater trains inoperable after a loop calculation processor card in the solid state protection system (Eagle 21) failed. This single active failure resulted in the loss of level control valve function on each motor driven pump train. The licensee concluded that the auxiliary feedwater train failures were expected as part of the solid

state protection system design and no corrective actions were required, other than replacing the failed card. The inspectors concluded that the solid state protection system design did not meet the design basis, which included that no single active failure would prevent the auxiliary feedwater meeting the safety function. During the original plant licensing, the NRC advised Pacific Gas and Electric (by letter dated June 26, 1980) that NUREG Items II.E.1.2, "Auxiliary Feedwater System Reliability Evaluation," was required to be addressed prior to licensing. This study demonstrated that a single failure concurrent with the loss of offsite power would not prevent the motor-driven system safety function. The NRC acceptance of the auxiliary feedwater system was based, in part, on the reliability study conclusion as documented in Supplemental Safety Evaluation Reports 10 and 18. The inspectors concluded that original auxiliary feedwater system design was not susceptible to the single failure that occurred on June 29, 2009.

The NRC subsequently approved the installation of Eagle 21 on October 7, 1993 per License Amendment 275-84/323-83. The Eagle 21 design basis included that a single failure would not adversely affect engineered safety feature function; however, the Eagle 21 modification inadvertently created a condition in which a single loop calculation processor card failure could result in the failure of both motor driven auxiliary feedwater trains. This new vulnerability was not discussed in the Eagle 21 license amendment request or safety evaluation for the modification. The licensee's evaluation of the loop calculation processor card failure on June 29, 2009, was less than adequate to identify that the Eagle 21 design did not meet the design basis. The inspectors concluded that a less than adequate description of the auxiliary feedwater design basis also contributed to the finding. The inspectors documented a finding involving less than adequate Final Safety Analysis Report Update documentation in section 1R04 of this report.

Analysis. The failure of Pacific Gas and Electric to implement corrective actions to restore the auxiliary feedwater system to the design basis was a performance deficiency. The inspectors concluded that the finding is greater than minor because it is associated with the design control attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined the finding to have very low safety significance because the condition did not represent a loss of system safety function. While the single failure of the loop calculation processor card resulted in the inoperability of both motor-driven auxiliary feedwater trains, the turbine-driven auxiliary feedwater train was available to perform the safety function. This finding has a crosscutting aspect in the area of problem identification and resolution, associated with the Corrective Action Program component because the licensee failed to perform an adequate evaluation of the auxiliary feedwater failure such that the resolutions address causes and extent of conditions, as necessary [P.1(c)].

Enforcement. Title 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Actions," requires that measures be established to assure conditions adverse to quality, such as nonconformances, are promptly identified and corrected. Contrary to the above, on August 31, 2009, the measures established by the licensee failed to identify and correct nonconformance. Specifically, the licensee's evaluation of a failure of the motor-driven auxiliary feedwater system did not identify or correct a failure of the solid state protection system design to meet the design basis. Because this finding is of very low safety

significance and was entered into the corrective action program as Notification 50298491, this violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000275/2010002-04, "Less Than Adequate Evaluation Following the Failure of Both Motor-Driven Auxiliary Feedwater Trains."

.3 (Closed) Licensee Event Report 5000275/2010-001-00 Control Room Ventilation Pressurization Due to Radiation Detector Failures

On October 13, 2009, the control room ventilation system transferred automatically to its pressurization mode of operation due to a high radiation signal from a system radiation monitor. Plant personnel discovered that Radiation Detector 1-RM-25 was trending upward. Technicians removed the detector from service. Within three hours, Radiation Detector 1-RM-26 also began trending up and was removed from service. Later that night, a third detector, 2-RM-25 began trending up and was also removed from service. Technicians discovered that the failure of the detectors was caused by water intrusion from heavy rain on October 13, 2009. The inspectors concluded that Pacific Gas and Electric failed to submit the licensee event report within 60 days after the event. This licensee event report is closed.

b. Findings

Failure to Report a Common-Cause Failure of Control Room Radiation Monitors

Introduction. The inspectors identified a noncited violation of 10 CFR 50.73(a)(1) after Pacific Gas and Electric failed to submit a required licensee event report within 60 days after discovery of a common-cause failure of three control room radiation monitors.

Discussion. Technical Specification 3.3.7, "Control Room Ventilation System Actuation Instrumentation," required that the licensee maintain four operable radiation monitors to automatically actuate the control room pressurization system in the event of an accident. On October 13, 2009 and October 14, 2009, three of the four radiation monitors failed. On October 16, plant technicians concluded that the first radiation monitor failure was due to water intrusion following heavy rains on October 13 and October 14. On October 24 and October 25, plant technicians inspected the other two failed radiation monitor and also discovered water intrusion. On December 24, 2009, the inspectors identified that the licensee had not reported the condition as required by 10 CFR 50.73. The inspectors concluded that the licensee's failure to thoroughly evaluate the radiation monitor failures for a potential common cause failure was the most significant contributor to the violation. The licensee had evaluated the individual failures for reportability, but had not considered the potential common cause failure due to water intrusion. On February 17, 2010, the licensee reported the event as Licensee Event Report 1-2010-001-00.

Analysis. The failure of Pacific Gas and Electric to submit a Licensee Event Report within 60 days of the common-cause failure of the radiation detectors was a performance deficiency. The inspectors evaluated this violation using the traditional enforcement process because the issue affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section IV.A.3 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy, the inspectors concluded this was a Severity Level IV noncited violation because the licensee failed to issue a required Licensee Event Report. This finding has a crosscutting aspect in the area of problem



identification and resolution associated with the corrective action program component because the licensee failed to thoroughly evaluate the failure of the radiation monitors to ensure reportability requirements were met [P.1(c)].

Enforcement. Title 10 of the Code of Federal Regulations 50.73(a)(1) required, in part, that the licensee submit a Licensee Event Report for any event of the type described in this paragraph within 60 days after the discovery of the event. Title 10 of the Code of Federal Regulations 50.73(a)(2)(vii) required, in part, that the licensee report any event where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system. Contrary to the above, the licensee failed to submit a required Licensee Event Report within 60 days after discovery of an event where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system on October 14, 2010. This is a Severity Level IV noncited violation consistent with Section 7.10 and Supplement I, Paragraph D.4, of the NRC Enforcement Policy. Because this finding is of very low safety significance and has been entered into the corrective action program as Notification 50301839, this violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000275; 05000323/2010002-05, "Failure to Submit a Licensee Event Report for a Common-Cause Inoperability of Independent Trains or Channels."

.4 (Closed) Licensee Event Report 05000323/2010-001-00: Diablo Canyon Power Plant Unit 2 Loss of Auxiliary Building Ventilation System Exhaust Fans

On July 21, 2008, plant operators inadvertently created a condition prohibited by plant technical specifications when removing the Unit 2 auxiliary building ventilation Exhaust Fan E-2 for planned maintenance. While removing Fan E-2 from service, the redundant exhaust fan, E-1, also shutdown. The redundant fan shut down due to a procedural error with the equipment clearance for Fan E-2. The failure of both exhaust fans was a safety system functional failure. The inspectors concluded that a less than adequate pre-job briefing contributed to the event. This issue was entered into the licensee's corrective action program as Notification 50070612. The inspectors previously dispositioned the enforcement aspects related to the failure of plant operators to follow procedure as NCV 05000323/2008004-01; "Inadequate Clearance Results in Inoperable Auxiliary Building Ventilation System."

The licensee identified that this event was also a safety system function failure on January 28, 2010 during a review of past events that resulted in a condition prohibited by plant Technical Specifications (Notifications 50292943 and 50295954). The failure of the licensee to report the event as a safety system functional failure within 60 days of occurrence was a violation of 10 CFR 50.73(a)(2)(v). This violation is dispositioned in Section 4OA7 of this report

b. Findings

No other findings of significance were identified.

**4OA5 Other Activities**

.1 Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the final report for the INPO plant assessment of Diablo Canyon Power Plant conducted in June 2009. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to verify if any significant safety issues were identified that required further NRC follow-up.

b. Findings

No findings of significance were identified.

**40A6 Meetings**

Exit Meeting Summary

On February 16, 2010, the inspectors conducted a telephonic exit meeting to present the results of the in-office inspection of changes to the licensee's emergency plan to Mr. T. Baldwin, Manager, Regulatory Services, and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On March 31, 2010, the inspectors presented the inspection results to Mr. J. Becker, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

**40A7 Licensee-Identified Violations**

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

Title 10 CFR Part 50.73(a)(2)(v), required that the licensee submit a Licensee Event Report for safety system functional failures within 60 days. Contrary to this, the licensee failed to report the July 21, 2008 failure of both auxiliary building exhaust fans as a safety system functional failure within 60 days. On January 28, 2010, the licensee identified the failure to make the report during a review of past events. The licensee subsequently reported the condition as Licensee Event Report 05000323/2010-001-00, "Diablo Canyon Power Plant Unit 2 Loss of Auxiliary Building Ventilation System Exhaust Fans." The inspectors concluded that the failure to make a required Licensee Event Report was a Severity Level IV violation using the General Statement of Policy and Procedure for NRC Enforcement Actions, Supplement I - Reactor Operations, dated January 14, 2005. Pacific Gas and Electric entered the issue into their corrective action program as Notifications 50265954 and 50301839.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee Personnel

J. Becker, Site Vice President  
W. Guldemon, Director, Site Services  
T. Baldwin, Manager, Regulatory Services  
K. Peters, Station Director  
M. Somerville, Manager, Radiation Protection  
J. Nimick, Manager, Operations  
J. Welsch, Director, Operations Services

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Opened

None.

#### Opened and Closed

05000275, 05000323/2010002-01	NCV	Failure to Effectively Implement the Seismically-Induced Systems Interaction Program (Section 1R04)
05000275, 05000323/2010002-02	NCV	Failure to Update the Final Safety Analysis Report with the Current Plant Design Bases" (Section 1R04)
05000275, 05000323/2010002-03	NCV	Failure to Report a Condition That Could Have Prevented the Fulfillment of a Safety Function" (Section 4OA2)
05000275, 05000323/2010002-04	NCV	Less Than Adequate Evaluation Following a Failure of Both Motor Driven Auxiliary Feedwater Trains (Section 4OA3)
05000275, 05000323/2010002-05	NCV	Failure to Submit a LERE for a Common-Cause Inoperability of Independent Trains or Channels (Section 4OA3)

#### Closed

05000323/2009-002-01	LER	Technical Specification 3.7.1 Violation Due to Cracked Valve Spring
05000275/2010-001-00	LER	Control Room Ventilation Pressurization Due to Radiation Detector Failures
05000323/2010-001-00	LER	Diablo Canyon Power Plant Unit 2 Loss of Auxiliary Building Ventilation System Exhaust Fan
05000275/2009-002-00	LER	Two Trains of Auxiliary Feedwater Inoperable Due to Protection System Failure

**LIST OF DOCUMENTS REVIEWED**

**Section 1R01: Adverse Weather Protection**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
SAPN 50293373	Operational Decision Making Report, High Swell Warning	1/12/2010
OP O-28	Intake Management	10
OP AP-28	Main Turbine Malfunction	6
OP AP-7	Degraded Condenser	35

**Section 1R04: Equipment Alignments**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
AD4.ID3	SISIP Housekeeping Activities	7
OP D-1:V	Auxiliary Feedwater System – Alternate Auxiliary Feedwater Supplies	20
OP K-2A:III	Alternate Methods of Pressurizing and Filling the Firewater System	10

ACTION REQUESTS/NOTIFICATIONS

60023821      50297050      50296072      50297516      50297584  
50297167

OTHER DOCUMENTS

DCM T-17, Long Term Cooling Water System, Revision 4  
Drawing 107031, Piping Schematic Long Term Cooling Water System, Revision 6

**Section 1R05: Fire Protection**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
CP M-6	Fire	31
MP M-18.2	Service, Tagging, Charging and Hydrostatic Testing of Portable Fire Extinguishers	15
STP M-69A	Monthly Fire Extinguisher Station Inspection Inside the Protected Area	39

**Section 1R11: Licensed Operator Requalification Program**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
E3ECA33D	Simulator Evaluation Guide – SGTR	15B
EOP E-3	Steam Generator Tube Rupture	31
EOP E-0	Reactor Trip or Safety Injection	36

NOTIFICATIONS

50296847

**Section 1R12: Maintenance Effectiveness**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MA1.ID17	Maintenance Rule Monitoring Program	22
AD7.DC6	On-Line Maintenance Risk Management	15A
AD7.ID4	On-Line Maintenance Scheduling	14

NOTIFICATIONS

50290886	50286581	50252773	50274627	50044666
50032874	50252761	50252764	50038854	50274626
50295651				

OTHER DOCUMENTS

- Maintenance Rule Summary Report, 11/30/2009
- Maintenance Rule Summary Report, 1/25/2010
- Maintenance Rule Expert Panel Meeting Minutes, 11/18/2009
- Maintenance Rule Expert Panel Meeting Minutes, 12/16/2009
- Maintenance Rule Expert Panel Meeting Minutes, 2/10/2010

**Section 1R13: Maintenance Risk Assessments and Emergent Work Control**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP1.DC16	Control of Plant equipment Not required by the Technical Specifications	10

**Section 1R13: Maintenance Risk Assessments and Emergent Work Control**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MA1.DC11	Risk Assessment and Approval	6

**Section 1R15: Operability Evaluations**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP AP-2B	Reactor Coolant Pump Malfunction	10
OP J-2: VIII	Guidelines for Reliable Transmission Service for DCPD	15
OM7.ID12	Operability Determinations	

NOTIFICATIONS

50302132      50301775      50301167

OTHER DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>
Switching Log 10-0007	MASA Cap BK-1&2, February 10, 2010
Calc. N-100	Maximum Flow from ECCS Pumps and Minimum Flow to Containment Spray Header, Revision 4
Drawing 663217	Mechanical PRFM Curve RHR Pump 2-2, Revision 3

**Section 1R18: Plant Modifications**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
CF3.ID9	Design Change Development	39

NOTIFICATIONS/ORDERS

50302440      50302433      50301167      60024240

OTHER DOCUMENTS

LBIE Screen, Change U1 and U2 Time Delay and Instantaneous FLUR Dial Settings. TMOD 60024240 (U1) and 60024244 (U2), March 11, 2010

Calculation 9000008577, Setpoint calculation for the Diesel Start and Load Shed First Level Undervoltage Relays (174A-DC), Revision 3

**Section 1R19: Postmaintenance Testing**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
STP M-9A	Diesel Engine Generator Routine Surveillance Test	81
STP M-11D	Station Battery terminal Voltage and Float Current Monitoring	2
STP M-12B	Battery Charger Performance test	15
STP I1C	Routine Weekly Checks Required by Licenses	90
STP M-75	4kV Vital Bus Undervoltage Relay Libration	29A
AD7.DC8	Configuration Documentation Sheet	03/12/10
AD7.DC8	Configuration Documentation Sheet	10/25/06
MP E-53.10V1	MOV Diagnostic testing with the Viper System	10
STP V-3H7	Exercising Valves FCV-364 and FCV-365, RHR Heat Exchanger CCW Return Valves	17

NOTIFICATIONS

50295206      50262054      64000763      64009201      60000535  
60000536

**Section 1R22: Surveillance Testing**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
STP M-9A	Diesel Engine Generator Routine Surveillance Test	81
STP M-51	Routine Surveillance test of Containment Fan Cooler Units	17
STP I-1B	Routine Daily Checks Required by Licenses	113
STP V-3R1	Exercising 10% Atmospheric Dump Valves	47
STP V-3P6B	Exercising Valves LCV-115 and 113, Auxiliary Feedwater Pump Discharge	17
STP P-ASW-21	Routine Surveillance Test of Auxiliary Saltwater Pump 2-1	27
STP I-38-A.1	SSPS Train A Actuation Logic Test in Modes 1,2,3, or 4	17

NOTIFICATIONS/ACTION REQUESTS/ORDERS

50292491	A0568818	50292852	64043653	64036237
64051185	64037856	64038364		

**Section 1EP6: Drill Evaluation**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EP OR-3	Emergency Recovery	7

**Section 4OA2: Identification and Resolution of Problems**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OM7.ID1	Problem Identification and Resolution	32