



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4511

February 12, 2013

Mr. Edward D. Halpin
Senior Vice President and
Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT - NRC INTEGRATED INSPECTION
REPORT 05000275/2012005 AND 05000323/2012005

Dear Mr. Halpin:

On December 31, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Diablo Canyon Power Plant. The enclosed inspection report documents the inspection results which were discussed on January 3, 2013, with Mr. B. Allen and members of your staff.

The inspections examined activities conducted under your license as they related 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.

Two NRC-identified findings and one self-revealing finding of very low safety significance (Green) were identified during this inspection. All of these findings were determined to involve violations of NRC requirements. Further, three licensee-identified violations which were determined to be of very low safety significance are listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial,

to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Diablo Canyon Power Plant.

If you disagree with a cross-cutting aspect assignment 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 Diablo Canyon Power Plant.

E. Halpin

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management 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/

Neil F. O'Keefe, Chief
Project Branch B
Division of Reactor Projects

Docket Nos.: 05000275, 05000323
License Nos.: DPR-80, DPR-82

Enclosure: Inspection Report 05000275/2012005 and 05000323/2012005
w/ Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000275, 05000323

License: DPR-80, DPR-82

Report: 05000275/20120005
05000323/20120005

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: October 1 through December 31, 2012

Inspectors: T. Hipschman, Senior Resident Inspector
L. Micewski, Acting Senior Resident Inspector
P. Elkmann, Senior Emergency Preparedness Inspector
G. Guerra, CHP, Emergency Preparedness Inspector
N. Hernandez, Operations Engineer
G. Warnick, Senior Resident Inspector, San Onofre Nuclear
Generating Station
L. Willoughby, Senior Project Engineer
D. You, Project Engineer

Approved By: N. O'Keefe, Chief, Project Branch B
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000275/2012005, 05000323/2012005; 10/1/2012 – 12/31/12 Diablo Canyon Power Plant, Integrated Resident and Regional Report; Operability Evaluations and Functionality Assessments, Plant Modifications

The report covered a 3-month period of inspection by resident inspectors and announced baseline inspections by region-based inspectors. Three Green non-cited violations of significance 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." The cross-cutting aspect is determined using Inspection Manual Chapter 0310, "Components Within the Cross Cutting Areas." 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: Initiating Events

- Green. The inspectors reviewed a self-revealing non-cited violation of Technical Specification 5.4.1(b) for failure to maintain emergency operating procedures after personnel reviewing a temporary modification failed to identify and change affected emergency operating procedures. Specifically, emergency operating procedure EOP E-0.1, "Reactor Trip Response," Revision 28, was not updated to be consistent with a temporary modification of steam generator water level low-low bistable setpoints. The licensee entered the condition into the corrective action program as Notifications 50517883, 50520697, and 50518355.

The failure to update emergency operating procedure E-0.1 "Reactor Trip Response," Revision 28, to account for higher low-low water level bistable reset setpoints introduced by Temporary Modification 60044709 was a performance deficiency. The finding was more than minor because it was associated with the procedure quality attribute of the Initiating Events cornerstone. Using Inspection Manual Chapter 0609.04, Appendix A, Exhibit 1, "Initiating Events Screening Questions," this finding was determined to be of very low safety significance (Green) because the finding does not represent a loss of system and/or function and does not represent an actual loss of function of at least a single train for greater than its Technical Specification allowed outage time, or two separate safety systems out-of-service for greater than its Technical Specification allowed outage time. This finding had a crosscutting aspect in the area of human performance, associated with the resources component, because the licensee did not ensure complete, accurate, and up-to-date procedures were available and adequate to ensure nuclear safety, [H.2(c)]. (Section 1R18.1)

Cornerstone: Barrier Integrity

- Green. The inspectors identified a non-cited violation of 10 CFR, Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," after personnel failed to adequately assess the impact of an unanalyzed condition on control room envelope operability. Specifically, personnel performed a problem screening for a nonconforming condition that impacted operability of the control room ventilation system operability and incorrectly determined that a review by the Shift Foreman, work control Shift Foreman, or Shift Manager was not required. After the inspectors raised this concern, the licensee determined that a reasonable expectation of control room ventilation system operability could not be provided, and declared the control room envelope inoperable, entered the applicable Technical Specification 3.7.10 action statements, and implemented compensatory measures. The licensee entered the condition into the corrective action program as Notification 50497774.

The failure to adequately assess the impact of an unanalyzed, non-conservative condition on control room habitability system operability was a performance deficiency. This finding was more than minor because it was associated with the Barrier Integrity Cornerstone objective design control attribute to provide reasonable assurance for the control room physical design to protect operators from radionuclide releases caused by accidents or events. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the inspectors concluded that the finding was of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. This finding had a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the impact of non-conservative control room atmospheric dispersion factor methodology on control room habitability system operability, [P.1(c)]. (Section 1R15.1)

- Green. The inspectors identified a non-cited violation of Technical Specification 3.7.10, "Control Room Ventilation System," after the control room envelope boundary for both units was inoperable for a greater duration than permitted by the out-of-service time. Specifically, the licensee operated Units 1 and 2 without an operable control room envelope from between at least September 2011 and December 2012, which is greater than the 90-day allowed outage time. The licensee entered the condition into the corrective action program as Notifications 50483820, 50497328, and 50485800

The failure to comply with Technical Specification 3.7.10 was a performance deficiency. The finding was more than minor because it was associated with the Barrier Integrity Cornerstone objective design control attribute to provide reasonable assurance that the control room physical design would protect operators from radionuclide releases caused by accidents or events. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the inspectors concluded that the finding was of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. This finding had a crosscutting aspect in the area human performance associated with decision-making component because the licensee did not use conservative assumptions in their decision

to implement compensatory actions following the inoperability of the control room envelope boundary, [H.1(b)]. (Section 1R15.2)

B. Licensee-Identified Violations

Violations of very low safety significance or Severity Level IV 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 associated corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

At the beginning of the inspection period, Pacific Gas and Electric (PG&E) Company was operating both units at full power.

On October 11, 2012, Unit 2 experienced a reactor trip due to an electrical fault in the main transformer bank. On October 15, equipment repairs were completed, and plant operators performed a reactor startup. Unit 2 returned to full power operation on October 17.

On November 12, 2012, plant operators reduced Unit 2 to 50 percent power following ocean debris fouling in the condenser cooling system. On November 16, 2011, the licensee cleared the debris and returned the unit to full power.

On December 1, 2012, plant operators reduced Unit 1 to 50 percent power following ocean debris fouling in the main condenser cooling system. The licensee cleared the debris and returned the unit to full power on December 4, 2012.

On December 13, 2012, plant operators reduced Unit 2 to 15 percent power in order to make repairs to the main generator voltage regulator. Unit 2 returned to full power on December 14.

On December 17, 2012, plant operators reduced Unit 1 to approximately 50 percent power due to heavy marine growth in the condenser cooling system. The licensee cleared the marine growth and returned the unit to full power on December 21, 2012.

Both units remained at full power for the duration of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.2 Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

Since multiple cold fronts, with heavy rain and sustained high winds and capable of producing gale-force gusts, were forecast in the vicinity of the facility for November 28 through December 2, 2012, the inspectors reviewed the plant personnel's overall preparations for the expected weather conditions. On November 27, 2012, the inspectors walked down the 500 kV switchyard systems because their functions could be either affected or required as a result of high wind-generated missiles or the loss of offsite power. The inspectors evaluated the plant staff's preparations against the site's procedures. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather

conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a high wind event. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (FSARU) and performance requirements for the systems selected for inspection, and verified that operator actions were appropriate as specified by plant-specific procedures. The inspectors also reviewed a sample of corrective action program items to verify that the licensee-identified adverse weather issues at an appropriate threshold and dispositioned them through the corrective action program in accordance with station 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 were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

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

- October 11, 2012, Unit 2, Startup bank power distribution to vital buses
- October 26, 2012, Unit 2, Control room ventilation system supply fan S-37
- November 5, 2012, Unit 1, Motor driven auxiliary feedwater pump 1-3

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, Updated Final Safety Analysis Report (FSARU), 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 inspected 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 in Inspection Procedure 71111.04-05.

b. Findings

No findings were identified.

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:

- October 11, 2012, Unit 2, Fire Area 20, 12 kV switchgear and cable spreading room
- October 11, 2012, Unit 2, Fire Areas 5-B-1, 5-B-2, and 5-B-3, 480 V vital switchgear rooms for buses “F”, “G”, and “H”
- October 25, 2012, Unit 2, Fire Area 3-D-2, residual heat removal pump 2-2 room
- October 30, 2012, Unit 1, Fire Areas TB-4, TB-5, and TB-6, 4 kV switchgear and cable spreading rooms for vital buses “F”, “G”, and “H”

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 in Inspection Procedure 71111.05-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Quarterly Review of Licensed Operator Requalification Program

a. Inspection Scope

On November 2, 2012 the inspectors observed a crew of licensed operators in the plant's simulator during training. The inspectors assessed the following areas:

- Licensed operator performance
- The ability of the licensee to administer the evaluations and the quality of the training provided
- The modeling and performance of the control room simulator
- The quality of post-scenario critiques
- Follow-up actions taken by the licensee for identified discrepancies

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

b. Findings

No findings were identified.

.2 Quarterly Observation of Licensed Operator Performance

a. Inspection Scope

On October 15, 2012, the inspectors observed the performance of on-shift licensed operators in the plant's main control room. At the time of the observations, the plant was in a period of heightened activity due to Unit 2 reactor trip following a main transformer bank electrical fault, a reactor startup, a recent earthquake, and a power increase, respectively. The inspectors observed the operators' performance of the following activities:

- October 11, 2012, Unit 2, operator response to reactor trip
- October 15, 2012, Unit 2, reactor startup, including the pre-job brief
- October 21, 2012, Units 1 and 2, operator response to earthquake felt onsite
- December 21, 2012 Unit 1 ramp to full power

In addition, the inspectors assessed the operators' adherence to plant procedures, including Procedure OP1.DC10, "Conduct of Operations," and other operations department policies.

These activities constitute completion of four quarterly licensed-operator performance samples as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.3 Biennial Review

a. Inspection Scope

The licensed operator requalification program involves two training cycles that are conducted over a 2-year period. In the first cycle, the annual cycle, the operators are administered an operating test consisting of job performance measures and simulator scenarios. In the second part of the training cycle, the biennial cycle, operators are administered an operating test and a comprehensive written examination.

The inspector conducted an in-office review of the annual requalification training program operating test results for 2012. The licensee examined 88 operators (41 reactor operators and 47 senior reactor operators) during this requalification cycle. In addition, 15 operating crews were examined on the facility's simulator. Fifteen of the operating crews passed the simulator scenarios and 88 operators passed the operating tests.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

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

- August 20, 2012, Unit 1, Auxiliary feedwater pump level control valve testing methodology, Notification 50522524
- October 18, 2012, Unit 1, Firewater for fire fighting, sprinklers, and deluge system, Notification 50510007
- October 18, 2012, Unit 2, Rod control system manual switch sticking, Notification 50464977
- November 15, 2012, Units 1 and 2, 4kV power automatic and manual transfer capability, Notification 50490604

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 monitoring
- Charging unavailability for performance monitoring
- 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 four quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings 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:

- October 14, 2012, Risk assessment supporting Unit 2 transition to Mode 1 with the control room envelope boundary inoperable

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 one maintenance risk assessment and emergent work control inspection sample as defined in Inspection Procedure 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Evaluations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following assessments:

- August 20, 2012, Unit 2, Notification 50507816, Diesel fuel oil booster pump on diesel generator 2-3 failure
- September 26, 2012, Units 1 and 2, Notification 50514765, use of leak before break methodology to meet 10 CFR 50.46 coolable geometry requirements

- October 11, 2012, Unit 2, Notification 50517823, main bank transformer arcing
- October 30, 2012, Units 1 and 2, Notification 50497328, review of dose consequences for fuel handling accident in the fuel handling building
- November 16, 2012, Units 1 and 2, Notification 50523571, increase in diesel fuel oil day tank unusable volume
- November 27, 2012, Units 1 and 2, Notification 50525326, control room pressurization system failed to latch in mode 4

The inspectors selected these operability and functionality assessments based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure technical specification operability was properly justified and to verify 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 FSARU 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. Additionally, the inspectors 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

(1) Failure to Perform Operability Evaluation

Introduction. The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," after personnel failed to adequately assess the impact of an unanalyzed condition on control room envelope operability.

Description. On July 5, 2012, during a licensing basis review, plant staff working on the Licensing Basis Verification Project (LBVP) wrote Notification 50496737 to document that in 1986, a non-conservative change had been made to the control room atmospheric dispersion factor methodology in Revision 2 of the Diablo Canyon Power Plant (DCPP) Updated Final Safety Analysis Report (FSARU). The licensee also noted that this change was made without prior NRC approval, which is documented as a licensee-identified violation in Section 4OA7 of this report. A staff member within the LBVP screened the issue and incorrectly determined that an operability review by control room personnel was not required.

An atmospheric dispersion factor is an input to a mathematical model used to simulate how airborne contaminants disperse in the atmosphere. Models are used to determine the consequences of accidental releases of chemicals or radionuclides. The results of dispersion modeling, using accidental release source terms and meteorological conditions, can provide an estimate of the location of impacted areas and ambient concentrations. In this case, the control room atmospheric dispersion factor was used in a design basis calculation to demonstrate that the control room habitability system met the General Design Criteria 19 requirements to limit the dose to operators during design basis accidents.

On July 10, 2012, the inspectors reviewed Notification 50496737 and identified that the non-conservative change to the control room atmospheric dispersion factor calculation methodology was potentially a nonconforming condition, and as such, should require an operability evaluation. Following notification of control room personnel, the licensee determined that a reasonable expectation of control room ventilation system operability could not be provided, and declared the control room envelope inoperable, entered the applicable Technical Specification 3.7.10 action statements, and implemented compensatory measures. The licensee entered the condition into the corrective action program as Notification 50497774.

The inspectors concluded that the most significant contributor to the finding was personnel not recognizing the problem as a nonconforming condition that would therefore need an operability evaluation by the licensed operators in the control room.

Analysis. The failure to adequately assess the impact of an unanalyzed, non-conservative condition on control room habitability system operability was a performance deficiency. This finding was more than minor because it was associated with the Barrier Integrity Cornerstone objective design control attribute to provide reasonable assurance for the control room physical design to protect from radionuclide releases caused by accidents or events. This finding was also similar to Example 3.j, in Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," because the unanalyzed, non-conservative methodology created a reasonable doubt that the system was capable of providing the specified safety function to maintain post-accident operator dose. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the inspectors concluded that the finding was of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room.

This finding had a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee did not thoroughly evaluate the impact of non-conservative control room atmospheric dispersion factor methodology on control room habitability system operability. Specifically, control room operators did not evaluate for operability because the issue was screened out by LBVP personnel. [P.1(c)]

Enforcement. Title 10 CFR, Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality be accomplished in

accordance with procedures. Procedure OM7.ID1, "Problem Identification and Resolution", required notification of the operating unit Shift Foreman, or Shift Manager when a problem is identified that is a degraded or nonconforming condition that impacts operability or reportability. Contrary to this, on July 5, 2012, the licensee performed a problem screening, an activity affecting quality, that was not in accordance with procedures. Specifically, LBVP personnel screened Notification 50496737 and incorrectly determined that a review by the Shift Foreman, work control Shift Foreman, or Shift Manager was not required. As a result, no operability determination was performed. When the issue was properly reviewed, the control room envelope was declared inoperable. Because this finding was of very low safety significance and was entered into the corrective action program as Notifications 50496737 and 50497774, this violation is being treated as a noncited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000275; 05000323/2012005-01 "Failure to Perform Operability Evaluation."

(2) Non-conservative Decision-Making Resulted in a Violation of Technical Specification

Introduction. The inspectors identified a Green, non-cited violation of Technical Specification 3.7.10, "Control Room Ventilation System (CRVS)," after the control room envelope boundary for both units was inoperable for a greater duration than permitted by the out-of-service time.

Description. The inspectors identified that the control room envelope (CRE – the pressure boundary and ventilation boundary for the control room) had been inoperable for a period greater than permitted by plant technical specifications during power operations. Because the plant has a dual-unit control room, the nonconforming condition affected both units. Technical Specification 3.7.10 prohibited reactor operation for more than 90 days with the control room envelope inoperable.

In September 2011, the inspectors identified that the control room in-leakage test results from 2005 were greater than the value assumed in the design basis radiological analysis, and that the licensee's testing was not performed in the most limiting configuration for operator dose, as required by Surveillance Requirement 3.7.10.5. This issue was documented as a Green finding and Severity Level III violation in the integrated inspection report for first quarter 2012: NOV 05000275; 05000323/2012002-02 (Agencywide Documents Access and Management System Accession No. ML12128A104)

In response, on September 12, 2011, the licensee concluded that the control room envelope was inoperable based on the inadequate air in-leakage test performed in 2005. Technical Specification 3.7.10, Required Action B.1 requires immediate implementation of mitigating actions to lessen the effect on CRE occupants from the potential hazards of a radiological or chemical event or a challenge from smoke. Required Action B.2 requires verification within 24 hours that, in the event of a design basis accident (DBA), the mitigating actions will ensure that CRE occupant radiological exposures will not exceed the calculated dose of the licensing basis analyses of DBA consequences, and that CRE occupants are protected from potential smoke and chemical hazards. Required Action B.3 requires restoring the CRE to operable status within 90 days.

The licensee promptly established mitigating actions for Required Actions B.1 and B.2, including establishing administrative controls to ensure operators would be administered potassium iodide (KI) or would don self-contained breathing apparatus in the event of a radioiodine release, as well as pre-staging and storage of adequate supplies of KI tablets and respirators in the control room.

As part of the actions to restore the CRE to operable status to meet Required Action B.3, the licensee performed in-leakage testing. On November 3, 2011, after analyzing the in-leakage testing results, the licensee identified a CRVS design vulnerability whereby unfiltered air supplied to the control room could exceed the flow rates used in the licensing-basis analysis of design-basis accident consequences under the most limiting system configuration. The licensee determined that the control room pressurization system airflow could bypass the supply filter if no CRVS booster fan in either train was operating. This would allow as much as 800 standard cubic feet per minute (scfm) of unfiltered air to be delivered to the control room following an accident that resulted in initiation of the CRVS pressurization mode, compared to an allowable value of 50 scfm.

The licensee then sought to restore operability of the CRE by verifying that all components and redundant components in each ventilation train were operable, and establishing configuration controls to maintain a CRVS from the opposite train available to ensure operator dose would continue to meet regulatory limits. The licensee reasoned that using these compensatory actions to restore system function was acceptable to satisfy Required Action B.3, in lieu of repairing the system or changing the design basis. The licensee re-performed the air in-leakage testing, while using these compensatory measures to establish a configuration that was not the most limiting for operator dose, and obtained acceptable in-leakage flow rates. Based on these results, the licensee then inappropriately declared the CRE operable on December 1, 2011 and exited Technical Specification 3.7.10.

In October 2012, the licensee implemented a design change to improve the CRE in-leakage by installing backdraft dampers that would minimize the unfiltered air flow in the CRVS. Subsequent testing demonstrated that the unfiltered air in-leakage was within limits under the most limiting conditions, and the CRE and CRVS were appropriately declared operable on December 20, 2012.

The inspectors questioned the licensee's determination in December 2011, that the system could be considered operable, since the licensee had not yet demonstrated acceptable in-leakage through testing in the most limiting condition. In Task Interface Agreement 2012-08 (Agencywide Documents Access and Management System Accession No. ML12325A340) dated November 20, 2012, the Office of Nuclear Reactor Regulation staff concluded that the compensatory actions to operate CRVS equipment from both trains were not sufficient to satisfy the requirements of performing Surveillance Requirement 3.7.10.5 in-leakage testing. Further, the compensatory actions were not acceptable to restore the CRE to an operable status as required by Required Action B.3, because the licensee had not changed the licensing basis design basis accident or repaired the CRE boundary. Therefore, the inspectors determined that the Technical

Specification allowed outage time of 90 days had been reached on December 11, 2011, with the CRE not yet operable.

As a result, the inspectors concluded that the licensee operated Units 1 and 2 without an operable control room envelope from between at least September 2011 and December 2012, which is greater than the 90-day allowed outage time.

The inspectors reviewed the licensee's Apparent Cause Evaluation for this issue. The licensee considered the primary causal factor to be a process deficiency in that station procedure XI3.ID12 "Current Licensing Basis Determination" does not direct clarification of NRC-approved standards to the NRC. As a result, the licensee obtained assistance from an industry peer in clarifying the Technical Specification Bases allowance of using compensatory measures to restore operability. This industry peer provided an inappropriate opinion that supported the licensee's conclusion.

The licensee considered the most significant causal factor to be the failure to properly evaluate for operability due to failure to recognize that the NRC had imposed restrictions on allowable compensatory measures to restore operability following failure of a surveillance test.

The inspectors concluded that the most significant contributor to the violation was non-conservative assumptions used by plant operators when deciding to implement compensatory actions in lieu of repairing the control room envelope boundary or changing the licensing basis design basis accident in order to restore the operability of the control room envelope boundary, because the licensee fundamentally put credence in a industry peer to draw a non-conservative conclusion about the intent of the Technical Specification from the discussion in the Bases section, rather than considering the wording of the actual requirement. Therefore, the inspectors concluded that the most relevant cross-cutting aspect is human performance area, decision making component (H.1(b)).

Analysis. Failure to comply with Technical Specification 3.7.10 was a performance deficiency. The finding was more than minor because it was associated with the Barrier Integrity Cornerstone objective design control attribute to provide reasonable assurance that the control room physical design would protect operators from radionuclide releases caused by accidents or events. Using Inspection Manual Chapter 0609, Appendix A, Exhibit 3, "Barrier Integrity Screening Questions," the inspectors concluded that the finding was of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room. The inspectors concluded that this finding had a crosscutting aspect in the area of human performance associated with the decision-making component because the licensee did not use conservative assumptions in their decision to implement compensatory actions following the inoperability of the control room envelope boundary [H.1(b)].

Enforcement. Technical Specification 3.7.10 requires, if control room envelope boundary was inoperable for 90 days, the licensee must place Units 1 and 2 in Mode 3 within 6 hours. Contrary to the above, on December 11, 2011, Pacific Gas and Electric

failed to place Units 1 and 2 in Mode 3 within 6 hours when the control room envelope boundary had been inoperable for more than 90 days. Because this finding is of very low safety significance and was entered into the corrective action program as Notifications 50483820, 50497328, and 50485800, this violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000275; 05000323/2012005-02, "Non-conservative Decision Making Resulted in a Violation of Technical Specification."

1R18 Plant Modifications (71111.18)

Temporary Modifications

a. Inspection Scope

To verify that the safety functions of important safety systems were not degraded, the inspectors reviewed the temporary modification identified as new steam generator level setpoints due to 10 CFR Part 21 report from Rosemont Nuclear Instruments concerning potential differential pressure transmitter setpoint inaccuracies.

The inspectors reviewed the temporary modification and the associated safety-evaluation screening against the system design bases documentation, including the FSARU 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 for temporary plant modifications as defined in Inspection Procedure 71111.18-05.

b. Findings

Failure to Update Emergency Operating Procedures

Introduction. The inspectors reviewed a Green self-revealing noncited violation of Technical Specification 5.4.1(b) for failure to maintain emergency operating procedures.

Description. In March 2012, the licensee was notified by Rosemount Nuclear Instruments, Inc. that differential pressure transmitters installed in the plant may not perform within the published steam pressure and temperature accuracy specification. The function of the affected transmitters at Diablo Canyon Power Plant is to trip the reactor when steam generator water level (narrow range) reaches the low-low setpoint, as well as to provide inputs to other safety-related systems such as the turbine driven auxiliary feedwater pump. To address the additional uncertainty in instrument accuracy, the licensee performed Temporary Modification 60044709 in March 2012, to raise the low-low bistable setpoint from 15% of steam generator water level to 17% of steam

generator water level. The design change called for changes to annunciator response procedures to reflect the new bistable setpoints. The temporary modification will remain in place in Unit 2, until the next scheduled refueling outage in February 2013, when the differential pressure transmitters are replaced. The temporary modification was also installed in Unit 1 in March 2012, and subsequently removed when the differential pressure transmitters were replaced in the April 2012 refueling outage.

On October 11, 2012, the Unit 2 reactor tripped due to a fault near the main transformer bank. The plant operators entered emergency operating procedure EOP E-0.1, "Reactor Trip Response," Revision 28. This procedure directed the operators to shut down turbine-driven auxiliary feedwater pump 2-1 when the steam generator levels were greater than 16%, even though the low-low steam generator water level setpoints were set to 17%. When operators shut down auxiliary feedwater pump 2-1, the low-low water level bistable had not yet reset, so the auxiliary feedwater pump automatically restarted and caused an unwanted increase in steam generator water levels. This unexpected occurrence created a challenge to plant operators while they were responding to the reactor trip, and required the operators to quickly evaluate the plant response and re-perform the procedure step to secure the turbine driven auxiliary feedwater pump in order to avoid an excessive cooldown of the reactor coolant system.

Inspectors noted that the modification failed to identify and change affected emergency operating procedures to specify shutting down auxiliary feedwater pump 2-1 after the low-low water level bistable reset.

Analysis Failure to update emergency operating procedure E-0.1 "Reactor Trip Response," Revision 28, to account for higher low-low water level bistable reset setpoints introduced by Temporary Modification 60044709 was a performance deficiency. The finding was more than minor because it was associated with the procedure quality attribute of the Initiating Events cornerstone. Using Inspection Manual Chapter 0609.04, Appendix A, Exhibit 1, "Initiating Events Screening Questions," this finding was determined to be of very low safety significance (Green) because the finding does not represent a loss of system and/or function and does not represent an actual loss of function of at least a single train for greater than its Technical Specification allowed outage time, or two separate safety systems out-of-service for greater than its Technical Specification allowed outage time. This finding had a crosscutting aspect in the area of human performance, associated with the resources component, because the licensee did not ensure complete, accurate and up-to-date procedures were available and adequate to ensure nuclear safety. Specifically the reactor trip response emergency operating procedure was not updated to be consistent with the temporary modification of steam generator water level low-low bistable setpoints. [H.2(c)]

Enforcement. Technical Specification 5.4.1(b) requires, in part, that emergency operating procedures required to implement the applicable requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in Generic Letter 82-33 and responses to the subject NUREGs be established, implemented, and maintained. Contrary to the above, the licensee failed to maintain emergency operating procedure EOP E-0.1, "Reactor Trip Response," Revision 28. Specifically, the emergency

operating procedure was not updated to be consistent with the temporary modification of steam generator water level low-low bistable setpoints. Licensee immediate actions included a revision to procedure EOP E-0.1, a verification and validation on the simulator, and just-in-time training for operators on lessons learned from the event. This violation was of very low safety significance and was placed in the licensee's corrective action program as Notifications 50517883, 50520697, and 50518355. This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000323/2012005-03, "Failure to Update Emergency Operating Procedures."

.2 Permanent Modifications

a. Inspection Scope

The inspectors reviewed key parameters associated with energy needs, materials, replacement components, timing, heat removal, control signals, equipment protection from hazards, operations, flow paths, pressure boundary, ventilation boundary, structural, process medium properties, licensing basis, and failure modes for the permanent modification identified for the control room ventilation system fan relays.

The inspectors verified that modification preparation, staging, and implementation did not impair emergency/abnormal operating procedure actions, key safety functions, or operator response to loss of key safety functions; postmodification testing will maintain the plant in a safe configuration during testing by verifying that unintended system interactions will not occur; systems, structures and components' performance characteristics still meet the design basis; the modification design assumptions were appropriate; the modification test acceptance criteria will be met; and licensee personnel identified and implemented appropriate corrective actions associated with permanent plant modifications. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample for permanent plant modifications as defined in Inspection Procedure 71111.18-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

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

- October 14, 2012, Unit 2, post-repair testing of main bank transformer, Work Order 60051271

- October 24, 2012, Unit 2, preventive maintenance testing of auxiliary saltwater pump 2-1, Work Order 60050239
- October 31, 2012, Unit 2, post-maintenance testing of auxiliary building ventilation damper M-26A, Work Order 60051789
- November 13, 2012, Unit 2, post-maintenance testing of containment spray pump 2-1, Work Order 64083612
- November 13, 2012, Units 1 and 2, post-maintenance testing of diesel fuel oil transfer pump 0-2, Work Order 64083620

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 Updated Final Safety Analysis Report (FSARU), 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 post-maintenance testing inspection samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report (FSARU), procedure requirements, and technical specifications to ensure that the 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 American Society of Mechanical Engineers 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.

- October 23, 2012, Unit 1, solid state protective system surveillance test (reactor trip and bypass breaker testing)
- October 24, 2012, Unit 2, inservice testing of auxiliary saltwater pump 2-1
- November 9, 2012, Unit 1 and Unit 2, reactor coolant system leakage detection calculation

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

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

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The licensee submitted the preliminary exercise scenario to the NRC on September 7, 2012, in accordance with the requirements of Appendix E to 10 CFR Part 50, Part IV.F.2(b). The inspectors performed an in-office review of the scenario to determine whether it acceptably tested major elements of the emergency plan, provided opportunities to demonstrate the key emergency response organization skills, and avoided participant preconditioning.

The scenario was designed to create conditions to classify a Notification of Unusual Event, an Alert, and a General Emergency. The scenario simulated:

- An unanticipated movement of control rods;
- An unanticipated discharge of a fire suppression system creating a hazardous environment;
- A failed charging pump limiting reactor coolant injection;
- A Steam Generator rupture with a failed relief valve, creating a radiological release to the environment; and
- Environmental radiation surveys requiring changes to the initial protective action recommendation, to demonstrate licensee personnel's capability to implement their emergency plan.

The inspectors evaluated exercise performance by focusing on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations, in the Control Room Simulator and the following dedicated emergency response facilities:

- Technical Support Center
- Operations Support Center

- Emergency Operations Facility
- Joint Information Center, Emergency News Center

The inspectors also assessed recognition of, and response to, abnormal and emergency plant conditions, the transfer of decision making authority and emergency function responsibilities between facilities, onsite and offsite communications, protection of emergency workers, emergency repair evaluation and capability, and the overall implementation of the emergency plan to protect public health and safety and the environment. The inspectors reviewed the current revision of the facility emergency plan, emergency plan implementing procedures associated with operation of the licensee's emergency response facilities, procedures for the performance of associated emergency functions, and other documents as listed in the attachment to this report.

The inspectors compared the observed exercise performance with the requirements in the facility emergency plan, 10 CFR 50.47(b), 10 CFR Part 50, Appendix E, and with the guidance in the emergency plan implementing procedures and other federal guidance.

The inspectors attended the post-exercise critiques in each emergency response facility to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent formal presentation of critique items to plant management. The specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.01-05.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors performed on-site and off-site reviews of,

- Diablo Canyon Nuclear Power Plant Emergency Plan, Revision 3, Change 20;
- Diablo Canyon Nuclear Power Plant Emergency Plan, Revision 4, Change 0, implemented September 26, 2001;
- Procedure G-4, "Personnel Assembly, Accountability, and Site Access Control during Emergencies," Revision 17;
- Procedure G-4, "Assembly and Accountability," Revision 18, implemented March 19, 2002;

- Licensing Basis Impact Evaluation for Emergency Plan Revision 4, Change 0, dated September 21, 2001; and,
- Corrective Action Program Notification 50483005, dated May 18, 2012.

Emergency Plan Revision 4, Change 0, and Procedure G-4, Revision 18, revised the area in which the licensee conducted employee accountability during an emergency from the protected area to the power block and discontinued the practice of assembling site employees in the plant complex outside the protected area.

These revisions were compared to their previous revisions, 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, 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).

These activities constitute completion of one sample as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on November 2, 2012, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification activities and notifications performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the attachment.

The inspectors observed tabletop training evolution for Technical Support Center personnel on November 29, 2012. The training focused on the practical use of prediction software to perform dose assessment, as well as assembly and accountability, and site evacuation procedures. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the documents listed in the attachment.

These activities constitute completion of two samples as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

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

40A1 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 third quarter 2012 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 were identified.

.2 Reactor Coolant System Specific Activity (BI01)

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system specific activity performance indicator for Units 1 and 2 for the period from the fourth quarter 2011 through the third quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's reactor coolant system chemistry samples, technical specification requirements, issue reports, event reports, and NRC integrated inspection reports for the period of October 2011 through September 2012 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. In addition to record

reviews, the inspectors observed a chemistry technician obtain and analyze a reactor coolant system sample. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of two reactor coolant system specific activity samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.3 Reactor Coolant System Leakage (BI02)

a. Inspection Scope

The inspectors sampled licensee submittals for the reactor coolant system leakage performance indicator Unit 1 and Unit 2 for the period from the fourth quarter 2011 through the third quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator logs, reactor coolant system leakage tracking data, issue reports, event reports, and NRC integrated inspection reports for the period of October 2011 through September 2012, 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. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of two reactor coolant system leakage samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.4 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill and Exercise Performance, performance indicator for the period July 2011 through September 2012. The guidance and definitions of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, was used to determine the accuracy of the reported performance indicator data. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator;

assessments of performance indicator opportunities during predesignated control room simulator training sessions, performance during the 2012 biennial exercise, and performance during other drills. The specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the drill/exercise performance sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.5 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill and Exercise Performance, performance indicator for the period July 2011 through September 2012. The guidance and definitions of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, was used to determine the accuracy of the reported performance indicator data. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the performance indicator, rosters of personnel assigned to key emergency response organization positions, and exercise participation records. The specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the emergency response organization drill participation sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.6 Alert and Notification System (EP03)

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill and Exercise Performance, performance indicator for the period July 2011 through September 2012. The guidance and definitions of Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, was used to determine the accuracy of the reported performance indicator data. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the Nuclear Energy Institute guidance. Specifically, the inspectors reviewed licensee records and processes

including procedural guidance on assessing opportunities for the performance indicator and the results of periodic alert notification system operability tests. The specific documents reviewed are described in the attachment to this report.

These activities constitute completion of the alert and notification system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

40A2 Problem Identification and Resolution (71152)

.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 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 were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of daily corrective action item screening discussed in Section 4OA2.2, above, licensee trending efforts, and licensee human performance results. The inspectors nominally considered the 6-month period of July 2012 through December 2012 although some examples expanded beyond those dates where the scope of the trend warranted.

The inspectors also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

These activities constitute completion of one single semi-annual trend inspection sample as defined in Inspection Procedure 71152-05.

b. Findings and Observations

No findings were identified.

The inspectors found that the licensee identified the following trends of significance:

- Notification 50509740, availability of parts and obsolescence planning challenges timely resolution of emerging issues. Engineering's approving drawings and code reports, providing inspection criteria for parts received, and resolving issues with parts on quality hold is a low priority.
- Notification 50512123, trend in inconsistency of understanding by plant supervisors and personnel of the requirements for long-term combustible control (insitu). Clarity of the transient combustible permit process is a challenge to the station overall.

- Notification 50516949, adverse trend in correct component verification human performance tools by maintenance personnel.
- Notification 50517510, trend in operations department equipment status control events.

An additional inspector-identified adverse trend was:

- Notifications 50510062 and 50511864, improper implementation of combustible controls, specifically, the ineffective use of hotwork permits to administratively control the use of acetylene for welding processes. The licensee has entered this issue into their corrective action program as Notification 50511714.

.4 Selected Issue Follow-up Inspection

a. Inspection Scope

During a review of items entered in the licensee's corrective action program, the inspectors recognized a corrective action item documenting the failure of the drive belt and concurrent pump seizure for the fuel oil booster pump on emergency diesel generator 2-3. The inspectors reviewed the circumstances surrounding the failure of the fuel oil booster pump, the adequacy of operator response, and the station procedure for verifying the engine is properly placed in standby following maintenance.

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

b. Findings

No findings were identified.

.5 In-depth Review of Operator Workarounds

a. Inspection Scope

The inspectors conducted a cumulative review of operator workarounds during the period December 26 - 28, 2012, for Units 1 and 2, and assessed the effectiveness of the operator workaround program to verify that the licensee was: (1) identifying operator workaround problems at an appropriate threshold; (2) entering them into the corrective action program; and (3) identifying and implementing appropriate corrective actions. The review included walkdowns of the control room panels, interviews with licensed operators and reviews of the control room discrepancies list, the lit annunciators list, the operator burden list, and the operator workaround list.

These activities constitute completion of one review of operator workarounds sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 Unplanned Reactor Trip Due to Electrical Fault

a. Inspection Scope

On October 11, 2012, the inspectors responded to the control room in response to an unplanned reactor trip caused by an electrical fault in the main transformer bank. Inspectors walked down the control boards during the event to verify stable plant conditions, monitored the licensee's actions to restore the transformer to service, reviewed station logs, discussed the event with the operations and maintenance staff and reviewed NUREG-1022, "Event Reporting Guidelines," Revision 2, to ensure licensee compliance.

b. Findings

No findings were identified.

.2 Notice of Unusual Event Due to Earthquake Felt in the Control Room

a. Inspection Scope

On October 21, 2012, the inspectors responded to the site in response to the licensee's declaration of a Notice of Unusual Event following an earthquake that was felt in the control room and confirmed by the U.S. Geological Survey. The licensee reported that the earthquake was felt at about midnight, and that it was a "very mild" event. The U.S. Geological Survey subsequently reported that the event was of magnitude 5.3 centered on the San Andreas fault near King City, California (90 miles from the plant). Inspectors performed walkdowns in the control room and the plant following the event to verify stable plant conditions, observed plant parameters and status for mitigating systems/trains and fission product barriers, monitored the licensee's walkdowns to ensure no equipment or structures were damaged, reviewed station logs, discussed the event with the operations and maintenance staff and reviewed NUREG-1022, "Event Reporting Guidelines," Revision 2, to ensure licensee compliance.

b. Findings

No findings were identified.

.3 (Closed) LER 05000275/2012-003-00: Low Temperature Overpressure Protection System Inoperable due to Human Performance Error

On June 7, 2012, PG&E identified that both trains of the Low Temperature Overpressure Protection (LTOP) system were inoperable due to a human performance error. Plant technicians were troubleshooting a de-energized vital 120 VAC Panel PY14 that had resulted from the supply breaker inadvertently tripping open when a plant technician incorrectly opened the supply breaker to Panel PY13 instead of PY14. This rendered both trains of LTOP inoperable. Plant staff immediately recognized the error and the technician promptly closed the PY13 supply breaker, thereby re-energizing Panel PY13 and restoring one train of LTOP to service.

The inspectors previously dispositioned this issue as self-revealing noncited violation 05000275/2012003-06. No additional findings were identified during this review.

This LER is closed.

.4 (Closed) LER 05000275/2011-007-00: Inadequate Control Room Envelope Testing Due To Inadequately-Documented In-Leakage Test Data

This event report has been updated with additional information by supplemental LER 05000275/2011-007-01. The inspectors will review this issue under the later revision at a later date.

This LER is closed.

40A5 Other Activities

.1 (Closed) NRC TI 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems (NRC Generic Letter 2008-01)"

As documented in Inspection Reports 05000275/2011003; 2011004; 2012003 and 05000323/2011003; 2011004; 2012003 the inspectors completed activities associated with TI 2515/177.

.2 (Open) NRC TI 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns"

a. Inspection Scope

The inspectors accompanied the licensee on their walkdown of:

- Diesel fuel oil storage tank 0-2 pump vault

- 115' Radiological Controlled Area bench, East of power block

and verified that the licensee confirmed the following flood protection features:

- Visual inspection of the flood protection feature was performed if the flood protection feature was relevant.
- External visual inspection for indications of degradation that would prevent its credited function from being performed was performed.
- Critical structure, system or component (SSC) dimensions were measured
- Available physical margin, as applicable, was determined.
- Flood protection feature functionality was determined using either visual observation or by review of other documents.

In addition, issues identified in response to Item 2.g that could challenge risk significant equipment and the licensee's ability to mitigate the consequences will be subject to additional NRC evaluation.

b. Findings

No NRC-identified or self-revealing findings were identified.

.3 (Open) NRC TI 2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns"

a. Inspection Scope

The inspectors accompanied the licensee on their seismic walkdowns of:

- August 25, 2015, turbine building, diesel fuel oil storage tank 0-2 pump vault
- August 29, 2012, intake building, auxiliary salt water pump vault 2-2
- August 29, 2012, auxiliary building battery charger and 120V AC inverter room

and verified that the licensee confirmed that the following seismic features associated with:

- Diesel fuel oil transfer pump number 0-2
- Diesel fuel oil transfer pump number 0-2 filters
- Auxiliary salt water pump 2-2
- 120V AC instrument breaker panels

- 120V AC inverters
- 125 V DC battery chargers

were free of potential adverse seismic conditions:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation.
- SSCs will not be damaged from impact by nearby equipment or structures.
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment.
- Attached lines have adequate flexibility to avoid damage.
- The area appears to be free of potentially adverse seismic interactions that could cause flooding or spray in the area.
- The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area.
- The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

Observations made during the walkdown that could not be determined to be acceptable were entered into the licensee's corrective action program for evaluation

Additionally, inspectors verified that items that could allow the spent fuel pool to drain down rapidly were added to the seismic walkdown equipment list (SWEL) and these items were walked down by the licensee.

b. Findings

No NRC-identified or self-revealing findings were identified.

.4 (Closed) Unresolved Item 05000275/2012003-05; 05000323/2012003-05: Control Room Habitability Operability Issues.

The NRC staff documented a staff position to the questions concerning the licensee's implementation of Technical Specification 3.7.10 in "Final Response To Task Interface Agreement 2012-08, Diablo Canyon Power Plant, Unit 1 AND 2 – Request Office of

Nuclear Reactor Regulation's Review of Operability Issues Associated with Technical Specification 3.7.10, "Control Room Ventilation System" Technical Interface Agreement 2012-08, " dated November 20, 2012 (ML12325A340). Resolution of this unresolved item is documented in Section 1R15.2. This unresolved item is closed.

40A6 Meetings, Including Exit

Exit Meeting Summary

On November 8, 2012, the inspectors presented the results of the onsite inspection of the biennial emergency preparedness exercise to Mr. B. Allen, Vice President, 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.

The inspector briefed Mr. D. Burns of the results of the annual licensed operator requalification program inspection on December 17, 2012. The licensee representative acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On January 3, 2013, the resident inspectors presented the inspection results to Mr. B. Allen, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector(s) asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On January 8, 2013, the inspectors conducted a telephonic exit meeting with Mr. B. Allen, Vice President, and other members of the licensee's staff, to characterize emergency preparedness findings related to changes to the site emergency plan and maintenance of the capability to perform protective measures for onsite employees. The licensee acknowledged the issues presented.

40A7 Licensee-Identified Violations

The following violations of very low safety significance or Severity Level IV were identified by the licensee and are violations of NRC requirements which meet the criteria of Section 2.3.2 of the NRC Enforcement Policy for being dispositioned as Non-Cited Violations.

.1 Failure to obtain NRC approval for a change to method of evaluation

Title 10 of the Code of Federal Regulations Part 50.59 c(2)(viii) requires that a licensee obtain a license amendment pursuant to 10 CFR 50.90 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would result in a departure from a method of evaluation described in the Final Safety Analysis Report (as updated) used in establishing the design bases or in the safety analysis. Contrary to this, the licensee failed to obtain a license amendment prior to implementing revisions to the Final Safety Analysis Report (as updated) that resulted in a departure from a method of evaluation described in the Final Safety Analysis Report. Specifically, on July 5, 2012,

Pacific Gas and Electric identified that revisions to Final Safety Analysis Report Update Section 15.5.4 changed the methodology for developing the atmospheric dispersion factor for the control room operator dose calculations to a less conservative approach. The justification stated that the results of the revised analysis were within the General Design Criterion 19 requirements, however, this analysis did not include the impacts of unfiltered control room in-leakage. Using the originally approved methodology, as well as accounting for the unfiltered in-leakage, the licensee concluded that the calculated control room thyroid dose was above the current licensing basis limit. The licensee entered the issue into the corrective action program as Notification 50497328. Using the Inspection Manual Chapter 0609, Appendix A, Exhibit 3 "Barrier Integrity Screening Questions," the inspectors concluded that the finding was of very low safety significance (Green) because the finding only represented a degradation of the radiological barrier function provided for the control room.

.2 Implementation of Changes to the Emergency Plan

The licensee identified on May 18, 2012, that Diablo Canyon Power Plant implemented changes to the site emergency plan on September 26, 2001, that reduced the plan's effectiveness and had the potential to impact the licensee's ability to implement protective measures. Title 10 of the Code of Federal Regulations, Part 50.54(q)(4) states in part, "The changes to a licensee's emergency plan that reduce the effectiveness of the plan may not be implemented without prior approval of the NRC." Contrary to the above, between September 26, 2001, and June 20, 2012, the licensee implemented changes to the site emergency plan that reduced the effectiveness of the plan without prior approval of the NRC. Specifically, the licensee excluded as many as 900 site workers from assembly and accountability, making it more difficult to implement protective measures, either for those individuals or by utilizing those individuals. This finding is more than minor because it affected the NRC's ability to perform its regulatory function. The violation was evaluated using the NRC's Enforcement Policy, Section 6.6.d, and determined to be a Severity Level IV violation because it degraded the licensee's ability to meet or implement a regulatory requirement not related to assessment or notification. The licensee documented this issue in their corrective action program as Notification 50483005. This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy.

.3 Failure to provide accurate information to the NRC

The licensee identified on August 15, 2011, that Diablo Canyon Power Plant had provided information to the NRC that was not complete and accurate in all material respects. Title 10 of the Code of Federal Regulations, Part 50.9(a), requires, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects. Contrary to the above, between August 17, 2005, and June 21, 2011, information provided to the Commission by Pacific Gas and Electric Company was not complete and accurate in all material respects. Specifically, licensee response DCL-05-094, "Thirty Day Response to NRC Bulletin 2005-02," stated that site procedures had been modified to ensure that plant page announcements accomplish the described onsite protective measures; however, the plant page system was not

adequate for this purpose in that not all personnel required to be covered by protective measures worked in buildings covered by the plant paging system. This violation is more than minor because it affected the NRC's ability to perform its regulatory functions. The finding was evaluated using Section 6.9 of the NRC Enforcement Policy and determined to be a Severity Level IV violation because accurate information would likely not have caused the NRC to reconsider a regulatory position or undertake a substantial further inquiry. The licensee documented this issue in their corrective action program as Notifications 50390230 and 50441808. This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

B. Allen, Site Vice President
T. Baldwin, Manager, Regulatory Services
M. Barnby, Health Physicist, Radiation Protection
A. Bates, Director, Engineering Services
D. Burns, Operations Training Manager
G. Close, Director, Site Services
T. Cuddy, Senior Manager, Communications
J. Fledderman, Director, Strategic Projects
R. Gagne, Supervisor, Radiation Protection
Y. Gagne, Supervisor, Radiation Protection
J. Gardner, Supervising Engineer, Chemistry
M. Ginn, Manager, Emergency Preparedness
E. Halpin, Chief Nuclear Officer
C. Harbor, Director, Compliance and Risk
J. Hinds, Director, Quality Verification
K. Hinrichsen, Instrument Foreman, Radiation Protection
T. Hook, Environmental Services Technician, Radiation Protection
T. Irving, Manager, Radiation Protection
T. King, Director, Work Management
J. Knemeyer, Engineer, Chemistry
W. Landreth, Engineer, Regulatory Services
G. Lauth, Supervisor, Quality Verification
P. Lawrence, System Engineer, Engineering Services
J. MacIntyre, Director, Maintenance
C. Miller, Radwaste Engineer, Radiation Protection
M. McCoy, NRC Interface, Regulatory Services
E. Nelson, Senior Manager, License Basis Verification Project
J. Nimick, Director, Operations Services
K. O'Neil, Systems Engineer, Engineering Services
L. Padovan, Supervisor, Regulatory Services
D. Peterson, Director, Quality Verification
O. Sabi, Environmental Services Technician, Radiation Protection
S. Sawtschenko, Manager, Emergency Preparedness, Palo Verde
L. Sewell, Lead Engineer, Radiation Protection
P. Soenen, Supervisor, Regulatory Services
J. Summy, Senior Director, Engineering Services
L. Walter, Director, Station Support
R. Waltos, Supervisor, Engineering
J. Welsch, Station Director
M. Wright, REMP Engineering, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000275; 05000323/2012005- 01	NCV	Failure to Perform Operability Evaluation (Section 1R15.1)
05000275; 05000323/2012005- 02	NCV	Non-conservative Decision Making Resulted in a Violation of Technical Specification (Section 1R15.2)
05000323/2012005- 03	NCV	Failure to Update Emergency Operating Procedures (Section 1R18.1)

Closed

05000275-1-2012- 003-00	LER	Low Temperature Overpressure Protection System Inoperable due to Human Performance Error (Section 4OA3)
05000275-1-2011- 007-00	LER	Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data (Section 4OA3)
2515/177	TI	Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems (NRC Generic Letter 2008-01) (Section 4OA5)
05000275; 05000323/2012003- 05	URI	Control Room Habitability Operability Issues (Section 4OA5.4)

Discussed

2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (Section 4OA5)
2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (Section 4OA5)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
AD8.DC51	Outage Safety Management Control of Off-Site Power Supplies to Vital Buses	15
DCM S-23F	Control Room HVAC System	17
DCM S-3B	Auxiliary Feedwater System	16

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
102023, sheet 16	Control Room HVAC (South)	111
102023, sheet 17	Control Room HVAC (North)	106
106703, sheet 3	Aux Feedwater System	76
102003, sheet 1	Piping Schematic Feedwater System	64
102003, sheet 4	Feedwater System	76

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
2-TS-12-0687	Unit 2, Tech Spec LCO log	October 11-15, 2012

Section 1R05: Fire Protection

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OM8. ID4	Control of Flammable and Combustible Materials	19
OM8.ID1	Fire Loss Prevention	23

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
111906	Auxiliary Building Elev. 54' & 64' (sheet 15)	1

NOTIFICATIONS

50509603	50510062	50509516
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MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Transient Combustible Permit # 2,691	November 7, 2012
Form 69-10644	Hot Work Permit # F7146	August 22, 2012
Form 69-10644	Hot Work Permit # F6673	August 27, 2012

Section 1R11: Licensed Operator Requalification Program

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP1.DC10	Conduct of Operations	30

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP1.ID3	Planned Plant Evolution Reactivity Brief	10
OP L-2	Hot Standby to Startup Mode	39

NOTIFICATIONS

50518131

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
R124S3	AOP Scenerio: Condenser Tube Leak, Tavg Channel Fails High, Seismic Event with Feed Pump Trip, Stuck Rod, Inadvertant Dilution	0A
	DCPP Focused Observation Card: Learning Services Activities, Instructor Assessment – Simulator Setting	November 2, 2012

Section 1R12: Maintenance Effectiveness

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MA1.ID17	Maintenance Rule Monitoring Program	23

NOTIFICATIONS

50510007	50500488	50464977	50468620	50490604
50507816	A0291565	50515050		

MISCELLANEOUS

Maintenance Rule Expert Panel Meeting 192 Minutes, October 18, 2012

Maintenance Rule Expert Panel Meeting 193 Minutes, November 15, 2012

Maintenance Rule Expert Panel Meeting 194 Minutes, December 20, 2012

Maintenance Manual MI-11272C GE/ALCO 18-251F, "Engine Maintenance Schedule, Nuclear Standby Engines"

Section 1R13: Maintenance Risk Assessment and Emergent Work Controls

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MA1.ID17	Maintenance Rule Monitoring Program	24

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
AD7.DC6	On-Line Maintenance Risk Management	19A
MA1.DC11	Assessment of Maintenance Risk	11

NOTIFICATIONS

50518382

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
PRA 12-20	Risk Assessment PRA12-20, Rev 0, 2X17 Mode Transition Evaluations	0
PRA 12-20	Risk Assessment PRA12-20, Rev 1, 2X17 Mode Transition Evaluations	1

Section 1R15: Operability Evaluations

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OM7.ID12	Operability Determinations	22

NOTIFICATIONS

50514765 50517823 50518133 50497328 50523571
50525326 50525844

MISCELLANEOUS

<u>TITLE</u>	<u>DATE</u>
Unit 2 Phase A CCVT Flashover Event Investigation Report	October 15, 2012

Section 1R18: Plant Modifications

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EOP E-0.1	Reactor Trip Response	28
CF3.ID6, Attachment 8.2	Engineering Drawing Transmittal Form for T-Mod: Change S/G Level Setpoint Due to Rosemount Transmitter Part 21	March 9, 2012

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
STP I-118A	Functional Test of Control Room Pressurization Rad Monitors RM-51, 52, 53 & 54	20A / November 15, 2012
STP I-18M1	Control Room Air Intake Monitor Function Test (RM-25 & 26)	14 / October 10, 2012

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
5000032466	Steam Generator Low-Low Water Level	March 9, 2012
5000032467	Low-low steam generator water level	March 9, 2012

NOTIFICATIONS

50518355	50517884	50517883	50520687	50464515
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WORK ORDERS

60044709	60044746	68024504	68024503
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MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
JITTOP 1209	AFW Autostarts – Lessons Learned	October 13, 2012
DCPP Form 69-20612	Temporary Modification Data Sheet for U-2, New S/G Level Setpoints Due to Transmitter Part 21	July 3, 2008
DCPP Form 69-20919	Design Review Issues Checklist	July 5, 2011
DCPP Form 69-21214	Independent Evaluation – Instrumentation and Controls	July 5, 2011

Section 1R19: Post-Maintenance Testing

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MP M-17.9	Auxiliary Salt Water Pump Maintenance	26
MP E-70A	Draining and Filling of Oil in Main Bank Transformers	5
MP M-23-FAN.4	Preventive Maintenance of Ventilation Fans with Dampers and Inlet Vanes	1
STP P-CSP-21	Routine Surveillance Test of Containment Spray Pump 2-1	12

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
STP P-DFO-02	Routine Surveillance Test of Diesel Fuel Oil Transfer Pump 0-2	7

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
107723, sheet 9	Auxiliary Building HVAC (Engineered Safety Equipment Area)	94

NOTIFICATIONS

50520847

WORK ORDERS

60051271 60050239 60051789 60050239 64083620

Section 1R22: Surveillance Testing

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
STP M-9I	Diesel Generator Start and Load Tracking	23
OP J-6B:VI	Diesel Generators: Manual Operation of DG 2-3	27
STP I-1C, Attachment 12.4	MODES 1, 2, 3 and 4 "As Required" OPERABILITY Check of Independent Circuits	May 4, 2012
STP I-38-A.1	SSPS Train A Acutation Logic Test in Modes 1, 2, 3, or 4	23
STP P-ASW-21	Routine Surveillance Test of Auxiliary Saltwater Pump 2-1	29
STP I-1B	Routine Daily Checks Required by Licensees	121

Section 1EP1: Exercise Evaluation

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
AWP EP-006	Emergency Preparedness Scenario Manual	0
EP G-1	Emergency Classification and Emergency Plan Activation	43
EP G-3	Emergency Notification of Offsite Agencies	54A
EP G-4	Assembly and Accountability	26

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EP RB-2	Emergency Exposure Guides	8
EP RB-3	Stable Iodine Thyroid Blocking	7
EP RB-10	Protective Action Guidelines	15
EP EF-1	Activation and Operation of the Technical Support Center	44
EP EF-2	Activation and Operation of the Operations Support Center	33
EP EF-3	Activation and Operation of the Emergency Operations Facility	36
	Emergency Action Level Technical Basis Manual	4.01
	DCPP Exercise Readiness Assessment Report	August 30, 2012
	Evaluation Report for the Drill conducted February 16, 2011	
	Evaluation Report for the Drill conducted March 2, 2011	
	Evaluation Report for the Drill conducted April 12, 2011	
	Evaluation Report for the Drill conducted April 26, 2011	
	Evaluation Report for the Drill conducted June 29, 2011	
	Evaluation Report for the Drill conducted July 13, 2011	
	Evaluation Report for the Drill conducted August 10, 2011	
	Evaluation Report for the Drill conducted October 26, 2011	
	Evaluation Report for the Drill conducted November 16, 2011	
	Evaluation Report for the Drill conducted March 14, 2012	
	Evaluation Report for the Drill conducted July 25, 2012	
	Evaluation Report for the Drill conducted August 8, 2012	
	Evaluation Report for the Drill conducted September 6, 2012	
	Evaluation Report for the Drill conducted October 3, 2012	

NOTIFICATIONS

50419835	50421870	50421973	50422863	50426151	50426918
50427420	50427707	50427999	50435272	50439418	50439803
50441808	50442667	50444911	50446723	50457491	50456855
50456852	50455675	50455673	50457124	50468345	50480294
50483005	50489932	50511203	50516527	50522814	50522817

50522818 50522819 50022820 50522822 50522823

Section 1EP6: Drill Evaluation

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EP G-4	Assembly and Accountability	26
EP G-5	Evacuation of Non-Essential Site Personnel	14

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
R124S3	AOP Scenerio: Condenser Tube Leak, Tavg Channel Fails High, Seismic Event with Feed Pump Trip, Stuck Rod, Inadvertant Dilution	0A
R124S3	Attachment 2- Simulator Documentation Record	0A
R124S3	Event/Expected Operator Response	0A
Form 69-20596	DCPP Emergency Notification Form	November 2, 2012
	Learning Outcomes: Assembly & Accountability & Evacuation	November 29, 2012
	Learning Outcomes: Plant Assessment and Dose Assessment Interaction	November 29, 2012

Section 40A1: Performance Indicator Verification

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
CAP E-1:IV	CVCS Influent Sampling	6
AWP O-001	NRC Performance Indicators: RCS Specific Activity	10
AWP-EP-001	Emergency Preparedness Performance Indicators	16
EP-MT-43	Early Warning System Testing and Maintenance	11

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
CAP D-6	U1 Dose Equivalent I-131 Calculation Sheet	September 3 – 28, 2012
CAP D-6	U2 Dose Equivalent I-131 Calculation Sheet	September 1, 2012 – October 1, 2012

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
	DCCP U1 RCS Dose Equivalent Iodine – 3 rd Quarter 2012	
	R-10C & I-1B Data for U1 and U2 (RCS Leakage)	December 2011 June 2012 September 2012
	Diablo Canyon Power Plant Emergency Plan	4

Section 40A2: Identification and Resolution of Problems

NOTIFICATIONS

50512123	50509740	50516949	50517510	50402610
50513064	50515899	50511541	50511542	50032632
50290525	50394106	50483459	50501315	

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
122780067	Observer Department Report for Quality Verification – Report Summary of Observations Performed	12/20/2012
	Quality Performance Assessment Report	12/19/2012
	Plant Performance and Improvement Report – Alignment & Accountability	07/12/2012
	Plant Performance and Improvement Report – Alignment & Accountability	08/16/2012
	Plant Performance and Improvement Report – Alignment & Accountability	10/18/2012
	Plant Performance and Improvement Report – Alignment & Accountability	11/08/2012

Section 40A3: Event Follow-Up

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EOP E-0.1	Reactor Trip Response	28
OP1.DC1	Administrative Program to Control the Return to Power After a Reactor Trip	11
CP M-4	Earthquake	29

PROCEDURES

NUMBER

TITLE

REVISION

NOTIFICATIONS

50517769	50517821	50517836	50517991	50518141
50518164	50518165	50518165	50518165	50517738
50517900	50517901	50517902	50518126	50518058
50518358	50517763	50517823	50518126	

Section 40A7: Licensee-Identified Violations

NOTIFICATIONS

50497328

LIST OF ACRONYMS

ADAMS	Agencywide Document Access and Management System
CFR	Code of Federal Regulations
CRE	control room envelope
CRVS	control room ventilation system
DBA	design basis accident
FSARU	Final Safety Analysis Report Update
KI	potassium iodide
LBVP	Licensing Basis Verification Project
LER	Licensee Event Report
LTOP	Low Temperature Overpressure Protection
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PG&E	Pacific Gas and Electric
scfm	standard cubic feet per minute
SDF	Significance Determination Process
SSC	Structures, Systems, and Components